

Ujjain Smart City Limited



Request for Proposal

for

**“Survey, design, engineering, procurement, construction,
installation, testing, commissioning, operation &
maintenance, and transfer of the Integrated Development &
Conservation of Maharishi Sandipani Ashram, Ujjain”
(2nd Call)**

NIT No. USCL/423

Tender ID: 2026_UAD_497019_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/423 Tender ID: 2026_UAD_497019_1 Ujjain Date: 03/04/2026

Ujjain Smart City Limited (USCL) invites online bids from eligible bidders for “*Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain (2nd Call)*” as per details given below:

SNo	Particulars	Details
1	Name of Work and Site	Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain (2 nd Call)
2	Cost of Tender Document / Bid submission Fee	Rs 50,000/- plus GST
3	Earnest Money Deposit (EMD) / Bid Security	Rs 50.00 Lakhs (Rupees Fifty Lakhs only)
4	Probable Amount of Contract (PAC)	Rs 139.97 Cr (Rupees One Hundred Thirty-nine Crore Ninety-seven Lakhs only) (Excluding GST)
5	Purchase of Tender Date	03/04/2026
6	Pre-bid Meeting	13/04/2026 15:00 Hrs
7	Purchase of Tender End Date	27/04/2026 upto 17:00 hrs
8	Financial and Technical Bid Submission End Date (Online)	27/04/2026 upto 17:00 hrs
9	Technical Bid Submission End Date (Physical Only)	Not Applicable
10	Technical Bid opening	28/04/2026 on/after 11:00 hrs
11	Financial Bid opening	To be notified
12	Completion Period	18 (Eighteen) Months (Including intervening rainy seasons)
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
<p><i>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.</i></p>		

UJJAIN SMART CITY LIMITED (USCL)

MADHYA PRADESH

APPENDIX 2.10

TENDER DOCUMENT

Office of the	:	Ujjain Smart City Limited
NIT Number and Date	:	USCL/423
Date of NIT	:	03/04/2026
Agreement Number and Date	:	
Name of Work	:	Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain (2 nd Call)
Name of the Contractor	:	
Probable Amount of Contract	In Fig	: Rs 139.97 Cr excluding applicable GST)
	In words	: Rupees One Hundred Thirty-nine Crore Ninety-seven Lakhs only
Contract Amount	In Fig	:
	In words	:
Stipulated Period of Completion	:	<i>18 (Eighteen) Months including intervening rainy season</i>

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SECTION 1
Notice Inviting e-Tenders
Ujjain Smart City Limited

Online Single percentage rate 'Above / Below / At Par' and Lumpsum Item 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	Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain (2 nd Call)	Rs. 139.97 Crores (Excluding GST)	Rs. 50.00 Lakhs	Rs. 50,000/-	18 (Eighteen) 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:**
 5. 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 five (5) 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.
 - a. 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.
 - b. 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.
 - c. Failure to sign the contract by the selected bidder, for whatsoever reason, shall result in forfeiture of the earnest money deposit.

6. The Bid Document can be purchased only online as per brief NIT Other key dates may be seen in bid data sheet.
7. 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/423

Dated. 03/04/2026

Online Single percentage rate 'Above / Below / At Par' and Lumpsum Item 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	Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain (2 nd Call)	Rs. 139.97 Crores (Excluding GST)	Rs. 50.00 Lakhs	Rs. 50,000/-	18 (Eighteen) 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 **Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain**

2. GENERAL QUALITY OF WORK:

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

3. PROCEDURE FOR PARTICIPATION IN E-TENDERING

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

4. ONE BID PER BIDDER

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

5. COST OF BIDDING:

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

6. SITE VISIT AND EXAMINATION OF WORKS:

The bidder is 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 / 423
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	As notified in e-tendering website
3	Cost of bid document	Rs 50,000/- + portal processing fees etc.
	Cost of bid document payable at	As notified in e-tendering website
	Cost of bid document in favour of	As notified in e-tendering website (Bidders shall be directed to the payment gateway through the portal)
4	Affidavit format	As per ANNEXURE B
5	Pre-Qualifications required	Yes -
	If yes, details	As per ANNEXURE C
6	Special Eligibility	Yes
	If Yes, details	As per ANNEXURE D
7	Key dates	As per ANNEXURE A
SECTION 2 - IT B		
CLAUSE REFERENCE	PARTICULARS	DATA
1.	Name of 'work'	Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain (2nd Call)
2.	Specifications	As per ANNEXURE -E
3.	Procedure for participation in e-tendering	As per ANNEXURE -F
4.	Whether joint venture is allowed	Yes Maximum 3 members including Lead Bidder
	If yes, requirement for joint venture	As per ANNEXURE - G
	Pre bid meeting to be held	Yes
	If Yes, Date, Time & Place	As per NIT Place: Mela Office, Kothi Road, Ujjain, Madhya Pradesh - 456010

CLAUSE REFERENCE	PARTICULARS	DATA
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12	Envelop A containing: i. Registration number or proof of application for registration and organizational details as per Annexure H ii. Cost of Bid Document iii. EMD iv. An affidavit duly notarized as per Annexure - B	Online submission Only
	Envelope-B Technical Proposal	ANNEXURE - I and ANNEXURE -I (Format I-1 to I-5)
	Envelope-C Financial Bid	Annexure - J (SHOULD BE SUBMITTED ONLINE)
	Materials to be issued by the department	ANNEXURE - K
	Period of Validity of Bid	120 Days
15	Financial Bids	The bidder shall quote: <ul style="list-style-type: none"> • Percentage rate for SOR items • Lump sum rates for NSR items The overall evaluated cost shall be derived accordingly, and lowest evaluated bidder shall be declared L1. In case the quoted bid is found to be abnormally low, the bidder may be required to submit justification. Employer reserves the right to seek additional performance security as per applicable MP PWD guidelines
17	Earnest Money Deposit	Rs. 50,00,000/-
	Forms of Earnest Money deposit	e-EMD (RTGS / NEFT)
	EMD valid for a period of	120 Days beyond the final validity period of bids from the last date of submission of bids.
21	Letter of Acceptance (LoA)	ANNEXURE L
22	Amount of Performance Security	Performance Security at the rate of <u>three (3) percent</u> of the contract value shall be required In case of any discrepancy in provisions on performance security, the latest guidelines issued by Finance Department/PWD/UADD of Govt. MP shall be applicable.
	Additional Performance Security, if any	In case the quote of the Successful Bidder is more than 10% below the PAC amount, then additional performance security shall be required to be submitted by the successful bidder. the latest circular issued by PWD of MP Govt. shall be applicable. (MPPWD Order No. F-53/02/2011/YO/19/525, DATED- 14/02/2025) (as attached) The Additional Performance Security shall not be treated as part of Performance Security and shall be

released on completion of project.

In case of any discrepancy in provisions on performance security or additional performance security, the latest guidelines issued by Finance Department/PWD/UADD of Govt. MP shall be applicable.

मध्यप्रदेश शासन
लोक निर्माण विभाग
मंत्रालय

कमांक-एफ-53/02/2011/यो/19

भोपाल, दिनांक

// आदेश //

मध्यप्रदेश शासन, लोक निर्माण विभाग द्वारा जारी आदेश कमांक-एफ-53/02/2011/यो/19/2022 भोपाल, दिनांक 10 अगस्त 2022 में अतिरिक्त परफॉरमेंस गारंटी की राशि की गणना के लिए उल्लेखित गणितीय विधा के विन्दु कमांक 3(अ) एवं 3(ब) में निम्नानुसार संशोधन उपरांत प्रतिस्थापित किया जाता है:-

3.1 निविदा में 10 प्रतिशत कम दर प्राप्त होने पर कोई अतिरिक्त परफॉरमेंस गारंटी की राशि नहीं लिया जाना है।

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 परफॉरमेंस गारंटी की राशि निम्नानुसार होगी:-

उदाहरण- यदि निविदा की अनुमानित लागत (PAC) Rs. 100.00 लाख है, तथा सफलतम निविदाकार की दर 14 प्रतिशत Below SOR हो तो अतिरिक्त परफॉरमेंस गारंटी की गणना निम्नानुसार होगी:-

एफ.डी.आर. के रूप में प्रस्तुत की जाने वाली अतिरिक्त परफॉरमेंस गारंटी की राशि:-

Probable Amount of Contract (PAC) X Rates Below SOR Beyond 10%=100 (14%-10%)= Rs. 4.00 लाख

3.3 निविदा में 20 प्रतिशत से अधिक कम दर (RATES BELOW SOR BEYOND 20%) आने पर निविदा दर आने पर गणना निम्नानुसार होगी:-

उदाहरण- यदि निविदा की अनुमानित लागत (PAC) Rs. 100.00 लाख है तथा, सफलतम निविदाकार की दर 24 प्रतिशत Below SOR हो तो अतिरिक्त परफॉरमेंस गारंटी की गणना निम्नानुसार होगी:-

एफ.डी.आर. के रूप में प्रस्तुत की जाने वाली अतिरिक्त परफॉरमेंस गारंटी की राशि:- A+B


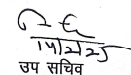
A. Probable Amount of Contract X1 x Rates Below SOR Beyond 10% upto 20%) = 100x1x (10%) = Rs. 10.00 लाख

B. Probable Amount of Contract X Rates Below SOR Beyond 20% = 100x2x (4%) = Rs. 8.00 लाख

अर्थात कुल अतिरिक्त परफॉरमेंस गारंटी की राशि- (A+B)=

Rs. 18.00 लाख

परिचय -Letter-2025-1

	<p style="text-align: center;">/2/</p> <p>3.4 ऐसे अनुबंध मे जिनमें 10 प्रतिशत कम दर की सीमा से अधिक कम दरों पर अनुबंध निष्पादित किये जाने उन अनुबंधित कार्यों के पूर्ण होने के उपरांत उनके अंतिम देयको का युगतान संबंधित अधीक्षण यंत्री के निरीक्षण उपरांत संतोषजनक पाये जाने पर तदनुसार अधीक्षण यंत्री द्वारा अनुमति प्रदान किये जाने के पश्चात ही किए जावे।</p> <p>3.5 उपरोक्त के अतिरिक्त कार्य स्थल पर स्थापित बैच मिक्स प्लांट, रेडीमिक्स कांक्रिट (RMC) प्लांट का अधीक्षण यंत्री के द्वारा निरीक्षण किये जाने के उपरांत ही कार्य प्रारंभ किया जावे।</p> <p>3.6 राशि रुपये 2.00 से 10.00 करोड़ तक के कार्यों के लिये स्थल पर स्थापित लेबोरेट्री का निरीक्षण अधीक्षण यंत्री के द्वारा तथा राशि रुपये 10.00 करोड़ से अधिक के कार्यों के लिये स्थापित लेबोरेट्री का निरीक्षण मुख्य अभियंता द्वारा किये जाने के उपरांत ही कार्य प्रारंभ किया जावे।</p> <p>अतिरिक्त परफॉरमेंस गारंटी की एफ.डी.आर. कार्यपूर्णता के उपरांत ही विमुक्त की जा सकेगी।</p> <p style="text-align: right;">  14/2/25 (ए. आर. सिंह) उप सचिव म0प्र0 शासन, लोक निर्माण विभाग भोपाल, दिनांक 14/02/2025 </p> <p>पू. क्रमांक-एफ-53/02/2011/यो/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 यंत्री, लोक निर्माण विभाग मध्य प्रदेश। 9. समस्त कार्यपालन यंत्री लोक निर्माण विभाग मध्य प्रदेश। 10. कार्यपालन यंत्री, (भवन) लोक निर्माण विभाग मध्य प्रदेश। <p>की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।</p> <p style="text-align: right;">  14/2/25 उप सचिव म0प्र0 शासन, लोक निर्माण विभाग </p>
Performance security in the format	ANNEXURE M
Performance security in favour of	Executive Director, USCL
Performance security valid up to	Valid till issue of Physical Completion Certificate plus Defect Liability Period plus, three months
Additional Performance security valid up to	Valid till issue of Physical Completion Certificate plus, three months

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.

Annexure—C

(Sec clause 5 of Section 1-NIT)

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

- c) 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.**

Note:

1. **The similar work shall mean**

Any Government/ULB/PSU/Smart City/ Development Authority / Private Trust/Organization Project involving integrated development of public, cultural, tourism, spiritual, or heritage precincts, which includes following components:

Civil/architectural construction and Stone artwork and MEP and Façade illumination and visual interpretation/experience centre or AV (Audio video) and AR/VR with exhibit systems.

or;

Upgradation of Civil/architectural construction and Stone artwork and MEP and Façade illumination and visual interpretation/experience centre or AV (Audio video) and AR/VR with exhibit systems.

Additional Clarifications

- 1. Projects executed on EPC/Turnkey/Design-Build/DBO basis shall be accepted.*
- 2. Only projects executed for Government/ULB/PSU/Smart City/Development Authority / Private Trust/Organization shall be considered.*

Heritage or AV or Voice over experience components may be delivered through a specialist sub-contractor under the Bidder.

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

SPECIAL ELIGIBILITY CRITERIA

The Bidder shall demonstrate proven capability in conservation, either in-house or through formal association or through a nominated sub-contractor:

- *At least one (1) completed project involving conservation of heritage buildings anywhere in India.*
- *At least one (1) completed project involving AV experience components for heritage/ historical/ public realm/ cultural/religious spaces anywhere in India.*

Both experience may be delivered through specialist sub-contractors under the Bidder.

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

SCOPE OF WORKS & SPECIFICATIONS

Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain (2nd Call)

[A] Scope of Works

1. Scope of Work for Survey–Design–Build–Operate–Maintain–Transfer Contract

1.1. Project Overview

The selected bidder (“Contractor”) shall be responsible for the *Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain*, to be executed in accordance with:

- The Conceptual Framework provided in the “Sandipani Concept Document”
- The “Preliminary Project Report (PPR) for Maharishi Sandipani Ashram”
- Applicable heritage guidelines, environmental regulations, and statutory approvals
- Requirements for readiness prior to **Simhastha 2028**, with project completion by **December 2027**

1.2. Detailed Scope of Work

A. Survey & Investigation

1.2.1. Topographical and Site Survey

The Contractor shall conduct a detailed topographical survey covering the complete project area (approx. **5.00 Ha**), identifying:

- Existing structures, utilities, contours, water bodies, trees, pathways
- Levels, slopes, embankments, site access, and adjoining rights-of-way
- High-resolution drone and GIS mapping (orthomosaic)

1.2.2. Utility Mapping

Mapping of all existing underground/overhead services including:

- Sewer, water supply, storm drains
- Electrical/HT-LT lines, lighting poles, communication networks
- Safety/security installations

1.2.3. Geotechnical Investigations

Comprehensive soil investigation including:

- Boreholes, plate load tests, soil resistivity

- Determination of geotechnical properties of black cotton soil
- Recommendations for foundation design, earthworks, embankments

1.2.4. Heritage Documentation

Detailed photographic, architectural and condition documentation of:

- Ankapata inscriptions
- Gomti Kund
- Existing Ashram structures
- Original stonework, murals, painted surfaces, lime-plaster elements

1.2.5. Environmental and Hydrological Assessments

- Baseline environment profile
- Tree census & ecological mapping
- Kund water-level profile, stormwater behaviour analysis
- Environmental Management Plan (EMP)

B. Design & Engineering

1.2.6. Master Planning

Prepare a comprehensive site master plan aligned to the defined Nine (9) Experience Zones:

1. Zone-1: Entry Corridor & Gateway

A transitional arrival sequence integrating architectural gateways, signage, landscape elements, and spatial transitions to establish identity and ceremonial entry.

2. Zone-2: Entry Plaza & Visitor Amenities.

Primary congregation forecourt with:

- Ticketing / information
- Toilets, drinking water
- Seating, shaded structures
- Crowd management systems

3. Zone-3: Orientation

- Introductory gallery
- Wayfinding systems
- Digital / physical interpretation panels

4. Zone-4: Ashram Zone

- Gurukul-inspired spaces
- Learning courts, meditation areas
- Integration of Gita & Mahabharata teachings

5. Zone-5: Heritage Temple Precinct

- Conservation-sensitive works
- Controlled development around temple structures
- No intrusive construction

6. Zone-6: Conservation of the Sacred Kund & Storytelling

- Gomti Kund conservation
 - Ghats, water-edge treatment
 - Narrative-based interpretation
7. **Zone-7: Inspirational and Wisdom zone**
- Thematic installations
 - Knowledge systems representation
 - Open-air learning spaces
8. **Zone-8: Interpretation Centre**
- Built structure including:
- Galleries
 - AV/VR experiences
 - Retail & food court
9. **Zone-9: Krishna Statue – Iconic Landmark Zone**
- Monumental statue
 - Structural design (wind tunnel + IIT/NIT vetting)
 - Plaza & viewing decks

Above zones are indicative, may subject to change during detailed planning/engineering or stakeholders' consultation.

The project shall be executed in an integrated manner across the above nine (9) zones. The contractor shall ensure seamless architectural, structural, landscape, and experiential continuity across all zones while maintaining the distinct character and intent of each zone.

1.2.7. Architectural Design

- Adoption of vernacular Malwa architectural elements
- Use of exposed brick, mud-lime plaster, basalt stone, terracotta tiles, timber/bamboo structures
- Courtyard-based layouts, shaded verandahs, jaali screens
- Climate-resilient and heritage-sensitive design

1.2.8. Structural Design

- Structural systems compatible with black cotton soil
- Monolithic/earth-friendly construction where feasible
- Structural safety certification as per NBC & relevant IS codes

1.2.9. MEP, ICT, and Utilities Design

- Rationalised plumbing
- Rationalised electrical/lighting systems
- Façade lighting, CCTV, PA systems, AV infrastructure
- Solar rooftop generation wherever feasible
- Water supply, sanitation, STP, stormwater, fire safety
- ICT backbone for visitor management systems

1.2.10. Landscape & Environmental Design

- Native and non-invasive plant species
- Sacred groves, shaded avenues, water-sensitive design features
- Hardscape (basalt stone, terracotta, cobblestone)
- Seating, signage, lighting, tactile paths

1.2.11. Crowd Management Design

- Simhastha-ready capacity: 50,000 visitors/day
- Semi-covered queue corridors
- Controlled entry/exit systems
- Special-day management plans

1.2.12. Digital Interpretation & Experience Design

- AR/VR galleries
- Immersive storytelling
- Dynamic light & sound installations at Gomti Kund
- Multi-language digital content

1.2.13. Preparation of GFC Drawings & Approvals

- Detailed drawings (architectural, structural, MEPF)
- Updated BOQ, phasing plan
- Regulatory approvals from relevant authorities
- Heritage conservation methodology

C. Stakeholder Consultation on Master Plan & Thematic Framework

Conceptual master plan indicating the 9 zones is provided. The contractor shall develop detailed designs (GFC drawings) for all zones ensuring interconnectivity, thematic continuity, and compliance with approved master plan.

The Contractor shall prepare a draft comprehensive Master Plan of the project covering all the project components, including zoning, circulation, built components, landscape strategy, and thematic narratives of various project components. The said draft Master Plan and themes shall be presented to all concerned stakeholders, including line departments, Dharmik Nyas evam Dharmasva Vibhag, Sandipani Ashram Administration, cultural institutions, and other agencies, as facilitated and coordinated by Ujjain Smart City Limited (USCL). The Contractor shall duly record the comments, observations, and suggestions received during such consultations and incorporate the same in the revised and final Master Plan. The final Master Plan shall be submitted to USCL for approval, and no work related to detailed design shall commence without such approval. No additional cost or time claim shall be admissible on account of stakeholder consultations or incorporation of suggestions.

D. Construction & Execution

1.2.14. Site Preparation

- Barricading, signage, safety systems
- Demolition of unsafe structures

- Protection of trees, heritage assets

1.2.15. Civil & Architectural Works

Includes (but not limited to):

1. Entry Plaza, Ticketing, Facilitation Block
2. Interpretive Zones (2–4) with galleries, exhibits & AV rooms
3. Dormitory/Residency Block (~80 beds)
4. Monumental Krishna Virat Swarup installation
5. Pilgrim Amenities: toilets, water kiosks, shelters
6. Cultural Plaza/Mandap
7. Pathways & circulation routes
8. Semi-covered queue management system

1.2.16. Heritage Conservation Works

- Gomti Kund rehabilitation: desilting, basalt ghats, safety rails, lighting
- Protection of stone inscriptions under a climate-controlled shelter
- Conservation of Ashram structures using lime mortar, natural pigments
- Preservation of murals, stone engravings

1.2.17. Engineering Services & Utilities

- Electrical, plumbing, drainage, STP, solar, fire systems
- ICT: CCTV, PA, Wi-Fi, command room
- Stormwater management & rainwater harvesting

1.2.18. Landscaping

- Planting of native species
- Garden courts, seating, shade structures
- Water features, fountains
- Interpretive signage and lighting

E. Wind Engineering Studies and Independent Structural Vetting:

For all monumental sculptures, portals, or figurative installations meeting any of the following criteria:

- (a) statue-only height (head-to-feet, excluding pedestal) greater than 20 metres, or
- (b) slenderness ratio (overall height to minimum base dimension) exceeding 4.0, or
- (c) presence of cantilevered or projecting elements (such as arms, weapons, ornaments, flags, or similar features) with projection greater than 3.0 metres, the Contractor shall, at his own cost, undertake wind tunnel testing and/or equivalent advanced aerodynamic studies to evaluate wind pressures, dynamic effects, vortex shedding, oscillations, and overall stability.

Such studies shall be carried out at a recognized wind engineering laboratory or technical institution of national or international repute, including IITs, NITs, or other institutes approved by Ujjain Smart City Limited (USCL). The results of the wind tunnel testing shall be duly incorporated into the final structural design, including provisions for stiffening systems, tuned mass dampers (where required), anchorage, segmentation of cladding, and foundation design.

In addition, all structural designs, calculations, and drawings relating to the above sculptures and associated foundations shall be independently vetted by IIT, NIT, or a leading technical institute, as approved by USCL. The Contractor shall submit the wind tunnel test report, structural vetting certificate, and compliance statement prior to issuance of Good for Construction (GFC) drawings. No construction or fabrication shall commence without written approval of USCL. No additional payment or time claim shall be admissible on account of such testing, vetting, or design modifications.

F. Miniature Models for Sculptures – Approval & Compliance

The Contractor shall, at his own cost, prepare and submit miniature scale models (physical and/or 3D printed models) of all sculptures, monumental installations, and major artistic elements proposed under the Project for review and approval of Ujjain Smart City Limited (USCL) and/or its designated Cultural & Heritage Committee. For large and monumental sculptures, the Contractor shall mandatorily submit two stages of miniature models: (i) an initial concept-stage model depicting form, proportions, posture, and thematic intent; and (ii) a refined model incorporating all comments, suggestions, and directions issued by USCL/Committee, including details of material treatment, surface finish, textures, and lighting integration. The final full-scale sculpture, including its finishing, patina, colour, and detailing, shall strictly conform to the approved second-stage miniature model. No fabrication or installation work shall commence without such approvals. No additional payment or claim whatsoever shall be admissible on account of preparation, revision, or modification of miniature models or incorporation of comments at any stage.

G. Approval of Content for AV, Digital Displays, Dioramas & Audio Elements

All background research, scripts, narratives, storyboards, texts, visual content, digital media, dioramas, signages, projection material, animations, and any form of audio or visual display, including voiceover scripts, language versions, voice samples, and selection of voice artists, prepared by the Contractor or its associates, shall be submitted for review and approval of USCL and its designated Cultural & Heritage Committee prior to finalisation and deployment. The Contractor shall incorporate all comments, modifications, and directions issued by USCL/Committee in the final content. No content shall be installed, broadcast, displayed, or made operational without written approval. No additional payment or claim shall be entertained on account of content revision, re-recording, re-editing, or re-development arising from such review process.

H. Testing, Commissioning & Handover

1.2.19. Testing & Commissioning

- Testing of all MEPF systems
- Testing of AV shows, ICT, solar plant
- Landscape establishment review
- Simulation of visitor flow and crowd movement

1.2.20. Training & Documentation

- Training of operating personnel
- O&M manuals, as-built drawings, equipment registers
- Heritage conservation protocols

1.2.21. Soft Launch & Final Handover

- Trial runs (45 days)
- Compliance certification
- Defect liability protocol
- Final transfer to Authority

I. Pre-Dispatch Third-Party Inspection of Major Equipment

The Contractor shall, at his own cost, arrange pre-dispatch third-party inspection (TPI) of all major equipment and systems including, but not limited to, AV and projection systems, lighting fixtures, façade lighting equipment, electrical panels, DG sets, pumps, STP equipment, ICT systems, surveillance equipment, and any other critical plant or equipment identified by USCL. The third-party inspection agency shall be independent and approved by USCL, and the inspection shall be carried out in the presence of representatives of USCL and/or the Project Development & Management Consultant (PDMC). Dispatch of equipment shall be permitted only after submission and acceptance of the pre-dispatch inspection certificate and test reports by USCL.

J. Operations & Maintenance (5 Years)

1.2.22. Facility O&M

- Daily maintenance of buildings, utilities, and site
- Cleaning, waste management, landscape upkeep
- Upkeep of AV galleries, AR/VR installation
- Maintenance of heritage structures

1.2.23. Revenue & Visitor Management

As per approved O&M model:

- Ticketing, guided tours, AV show tickets
- Rentals from shops, events
- Visitor flow & crowd control during Simhastha

1.2.24. Performance Standards

- Minimum system uptime: 98%
- Landscape survival rate: $\geq 90\%$
- Cleanliness rating: $\geq 4.5/5$
- Annual O&M KPIs as per Authority requirements

[B] MAJOR TECHNICAL SPECIFICATIONS & STANDARDS

A. TECHNICAL SPECIFICATIONS

Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain

(For Construction, Heritage Works, MEP, ICT, Landscaping & AV Systems)

A 1: General Requirements

1.1 Scope of Specifications

These specifications cover materials, workmanship, testing, quality control, and execution standards for all works forming part of the Survey-Design-Build-Operate-Maintain-Transfer (SDBOMT) contract for the Integrated Development and Conservation of Maharishi Sandipani Ashram, Ujjain. General requirements are:

- Compliance with NBC 2016, IS Codes, CPWD/MP-PWD/UADD specifications
- All works per approved GFC drawings
- Mandatory material approval via datasheets, samples, mock-ups
- NABL testing for materials
- All temporary works to follow safety regulations

1.2 Standards & Codes

All works must comply with the applicable BIS & reference international standards; the list of standards given at Part [C] of this section.

1.3 Drawings & GFC Requirements

All construction shall be executed strictly as per:

- Good for Construction (GFC) drawings approved by the Engineer-in-charge
- Approved shop drawings where applicable
- Field changes only after written approval

1.4 Contractor Responsibilities

- Site safety, barricading, insurance
- Deployment of qualified engineers
- Quality assurance as per QAP submitted
- Material testing at NABL labs
- Adherence to environmental and heritage protocols

1.5 Materials Approval

All materials shall be approved through:

- Submission of datasheets
- Mock-ups where required
- Third-party test certificates

A 2: Site Development Works

2.1 Earthwork & Grading

Materials

- Approved earth, free from debris
- Moisture content as per IS 2720

Execution

- Excavation in all soils to required levels
- Compaction to 95% Standard Proctor Density
- Layer thickness: max 200 mm

Testing

- Field density test: 1 test per 500 sqm

2.2 Paved Walkways

Materials

- 75 mm paver blocks (M40 grade) OR sandstone slabs (25–40 mm)
- RCC base: M20, 100 mm thick
- Joint sand: crushed stone dust

Execution

- Sub-base: 150 mm WBM/GSB
- Edge restraint: precast concrete curb

2.3 RCC Drains & Curbs

- RCC M25 precast drains with covers
- Curbstones: M30 grade, 300×150 mm

2.4 Pergolas & Shaded Paths

- Steel (IS 2062) or RCC M25
- Treatment: epoxy + PU topcoat
- Creeper wires in stainless steel

2.5 Plantation & Landscaping

Plant Palette (Native)

- Neem, Peepal, Kadamb, Jamun, Amaltas, Champa, Aam
- Shrubs: hibiscus, cassia, duranta

Execution

- Pit size: 600×600×600 mm
- Soil mix: red soil + manure + sand (2:1:1)
- Drip irrigation network

A 3: Civil & Architectural Works

3.1 RCC Structures

- Concrete Grade: M25/M30
- Steel: Fe500D, TMT
- Formwork: waterproof plywood
- Curing: 7 days (normal), 3 days (with curing compound)

Structural Design Requirements

- Seismic Zone III compliance
- Black cotton soil mitigation using Under-reamed piles OR raft foundation as per DBR

3.2 Masonry

Exposed Brickwork

- Burnt clay bricks (Class 7.5)
- Mortar: 1:4 cement-sand or lime-surkhi where specified
- Flemish/rat-trap bond

Basalt Stone Masonry

- Hand-cut blocks
- Thickness: 230–300 mm

3.3 Roofing

- Timber trusses (seasoned hardwood)
- Terracotta tiles over waterproof membrane
- Lime terracing for flat roofs

3.4 Flooring

- Basalt stone (20–30 mm)
- Sandstone/cobblestone (80–100 mm)
- Kota stone (interior service areas)

3.5 Doors & Windows

- Timber frames (teak/champ)
- Hardware: brass/SS heritage finish
- Jaali screens: brick/terracotta

3.6 Finishes

- Lime plaster (2–3 coats)
- Natural earth pigments
- Low-VOC interior paints

A 4: Heritage Conservation Works

4.1 Gomti Kund Conservation

Desilting

- Manual + pump-aided
- No mechanical dredging allowed

Stone Ghats

- Basalt stones, hand-dressed
- Lime-surkhi mortar joints

Water Systems

- Filtration + circulation pumps

- Underwater lights (warm white)

4.2 Protection of Numbered Stone Inscriptions

- Cleaning via micro-abrasive method
- Chemical consolidants (silane/siloxane)
- Climate-controlled pavilion installation

4.3 Ashram Heritage Structures

- Timber repair using reversible methods
- Lime plaster restoration
- Mural protection using conservation-grade materials

A 5: MEP Systems

5.1 Electrical Works

- Cabling: FRLS, IS 7098 compliant
- Lighting: LED, 2700–3000K for heritage zones
- Pole lights: IP66, IK08
- Switchgear: ABB/Schneider/L&T equivalent

5.2 Plumbing Works

- UPVC/SWR pipes (SCH 80)
- HDPE pipes PN 6–10
- Fixtures: water-saving type

5.3 Fire Safety

- Smoke detectors, heat detectors
- Extinguishers (CO₂, ABC)
- Hydrants where required

5.4 HVAC Systems

- VRV/VRF units in galleries
- AHUs with 30% fresh air
- Filtration MERV 8 or higher

A 6: ICT, Surveillance & AV Systems

6.1 CCTV

- IP cameras, 4MP minimum
- NVR-based storage (30 days retention)
- Fiber backbone

6.2 PA System

- IP-based speakers
- Zonal control

6.3 Wi-Fi

- Dual-band outdoor APs
- Hotspot management software

6.4 AV Experience Systems

Projectors

- Laser phosphor, 10,000+ lumens

VR/AR

- Headsets (6 DOF)
- Content server integration

Interactive Kiosks

- Touch-enabled (minimum 43")
- Anti-glare toughened glass

A 7: Light & Sound Show Specifications

7.1 Lighting

- DMX-controlled system
- Underwater IP68 fixtures
- Gobo projectors for thematic effects

7.2 Audio

- 5.1 or 7.1 Surround
- Outdoor weatherproof speakers

7.3 Control Room

- Media server with show-control software
- Redundant power backup

A 8: Corridor, Ghat & Thematic Elements

8.1 Corridor Artwork

- Relief motifs
- Weatherproof finishes
- Stone/metal elements

8.2 Monumental Installations

- 20 ft and 60 ft height installations
- RCC/steel core with GFRC cladding
- Wind load compliance as per IS 875

8.3 Bridge Construction

- 4 m wide pedestrian bridge
- RCC/steel composite deck

8.4 Ghat Development

- Basalt stone
- Handrails (SS304/316)

8.5 Specifications for Sculptures

8.5.1. DETAILED SPECIFICATIONS – METAL SCULPTURES

(Materials may include Bronze, Brass, Stainless Steel, Mild Steel, Weathering Steel)

1.1 Materials

(a) Primary Structural Material

- Stainless Steel SS304/SS316 (recommended for outdoor use)
- Thickness:
 - Skin: 3–6 mm
 - Internal frames: 6–12 mm box sections
- For corten/“weathering steel”: Comply with ASTM A588.

(b) Bronze Casting (if traditional)

- Copper content $\geq 85\%$
- Lead $\leq 5\%$
- Wall thickness: 6–10 mm
- Method: Lost wax casting

(c) Mild Steel (for substructure only)

- IS 2062 E250/E350
- Thickness: as per structural design & wind load requirement

1.2 Fabrication Requirements

- All welds TIG/MIG as per AWS D1.1 standards
- Grinding and finishing seamless unless intentionally textured
- Internal stiffeners based on wind load design (IS 875 Part 3)
- No visible welding on external façade
- Internal anticorrosive primer: Zinc-rich epoxy, 70–90 microns
- External coating:
 - PU topcoat (two coats, 40–50 microns each)
 - OR clear lacquer for bronze

1.3 Surface Finishing

Choose depending on artistic intent:

- Brushed finish
- Mirror finish
- Antique bronze patina
- Weathered or oxidized finish
- Protective Nano-coating (5-year warranty)

1.4 Structural Stability

- Structural support calculated as per wind speed 47 m/s (Ujjain region)
- RCC pedestal with anchor bolts (M20, SS316)
- Minimum pedestal depth: 600 mm below NGL, or as per design
- Base plate minimum thickness: 16–20 mm

1.5 Testing Requirements

- Non-destructive testing (NDT) of welds – 5% of joints minimum
- Coating thickness test (DFT meter)
- Load test on anchor system
- Stability certification by licensed structural engineer

8.5.2. DETAILED SPECIFICATIONS - COMPOSITE MATERIAL SCULPTURES (FRP/GFRC/GRC)

These are widely used for **large installations (20 ft–120 ft)** due to light weight and easy shaping.

2.1 Materials

(a) FRP (Fiber Reinforced Polymer)

- Resin: Isophthalic / Vinyl Ester resin (outdoor grade)
- Glass fibre: 450–600 GSM chopped strand mat
- Skin thickness: 5–12 mm (skin thickness will be as approved by EIC)
- Fire-retardant grade: FR Class II or higher

(b) GFRC (Glass Fiber Reinforced Concrete) / GRC

- Cement:Sand ratio = 1:1 to 1:1.3
- Glass fibre alkali-resistant (AR glass, 4.5–5% content)
- Typical thickness: 12–20 mm
- Backing: welded GI mesh

(c) Internal Frame (Mandatory for large sculptures)

- Metallic armature using 8mm MS bars coated with epoxy paint as the spine of the sculpture
- MS/SS square pipes (40×40×3 mm or higher)
- Bracing as per wind load design
- Corrosion resistance: hot-dip galvanised (80–100 microns)

2.2 Fabrication Requirements

- 3D modelling + CNC foam cutting for master mould
- Gelcoat (UV-stabilized) minimum 0.4–0.6 mm
- FRP lamination in multiple layers
- GFRC cast in sprayed or premix method
- Joints reinforced with internal overlap of minimum 100 mm
- Sculpture assembled onsite using concealed SS bolts

2.3 Surface Finishing

- Polyurethane (PU) paint – minimum 2 coats, exterior grade
- UV resistance: minimum 5-year warranty
- Metallic finishes (bronze, copper, gold leaf) optional
- Anti-graffiti coating on final layer

2.4 Structural & Safety Requirements

- Foundation/RCC pedestal designed for wind loads as per IS 875
- Anchorage using SS316 bolts (minimum M16)
- Internal ladder or access for maintenance (for >30 ft sculptures)
- Lightning arrestor for sculptures above 12 m

2.5 Testing & Quality Control

- Resin-to-glass ratio testing
- Flexural strength test for GFRC
- Adhesion test of coatings
- Prototype sample (1:10 scale) approval

8.5.3. DETAILED SPECIFICATIONS – STONE SCULPTURES (Basalt / Sandstone / Granite / Marble)

Used for traditional, spiritual, or cultural artwork requiring durability.

3.1 Materials

(a) Basalt (local / Malwa region)

- Compressive strength ≥ 200 MPa
- Water absorption $\leq 1\%$

(b) Granite

- Compressive strength ≥ 150
- Suitable for polished and carved finishes

(c) Sandstone

- Compressive strength $\geq 55\text{--}60$ MPa
- Preferred for textured carving
- Weather-resistant varieties only

(d) Marble

- Compressive strength ≥ 70 MPa
- Interior or sheltered zones only

3.2 Carving Specifications

- Hand-carved or CNC-assisted initial shaping
- Final detailing by trained sculptors
- Minimum stone thickness: 200 mm (for free-standing elements)
- No cracks, veins, or hidden defects

3.3 Surface Finish Options

- Natural finish
- Bush-hammered
- Honed or polished (for granite/marble)
- Hand-chiselled traditional finish
- Protective breathable coating (silane/siloxane)

3.4 Structural Stability

- Mortise-tenon or dowel-based connections
- SS304 dowels (minimum 12 mm dia)
- RCC base block M25
- Anti-slip textured finish for stepped surfaces

3.5 Testing & Certification

- Stone strength test (lab certificate)
- Water absorption test
- Salt crystallization test for outdoor sandstone
- Sample piece approval before bulk work

8.5.4. DETAILED SPECIFICATIONS – SILICONE SCULPTURES

(Hyper-Realistic Figurative Installations)

The Contractor shall design, develop, fabricate, supply, install, test, and commission hyper-realistic silicone sculptures for indoor interpretation zones, galleries, dioramas, and thematic installations forming part of the project. These sculptures shall represent human figures, characters, and narrative scenes aligned with the approved content, theme, and storytelling framework.

4.1 Materials & Construction

External Skin:

- Platinum-cured, high-grade silicone elastomer with UV stability, non-yellowing properties, and high tear resistance.
- Soft-touch, skin-like finish with anti-fungal and anti-dust characteristics.

Internal Structural System:

- Structural frame in stainless steel (SS 304/316) or equivalent corrosion-resistant material.
- Designed for stability, load resistance, and long-term deformation control.

Core & Infill:

- Fire-retardant polyurethane foam / resin / composite core ensuring dimensional stability.

4.2 Artistic Detailing & Realism

Sculptures shall achieve museum-grade realism, including:

- Anatomically accurate proportions
- Detailed facial expressions and textures (pores, wrinkles, tonal variations)
- Hand-painted multi-layer pigmentation

Hair (natural/synthetic), eyes, eyelashes, and accessories shall be realistically rendered and securely fixed.

Costumes and props shall be context-appropriate, durable, and approved by the Authority.

4.3 Finishing & Surface Performance

Matte or semi-matte finish suitable for gallery lighting conditions

Resistance to:

- Dust accumulation
- Minor abrasion
- Cleaning agents (mild, non-corrosive)

4.5 Durability & Environmental Conditions

Suitable for indoor, controlled environments

Operating temperature range: 10°C to 45°C

Resistant to humidity, fungal growth, and normal indoor UV exposure

Minimum service life: 15 years, subject to proper maintenance

4.6 Safety Requirements

Use of non-toxic and fire-retardant materials

Smooth edges with no hazardous projections

Stable anchoring and anti-toppling design

Compliance with applicable fire and safety norms

4.7 Installation & Integration

Secure fixing to base/platform with concealed anchoring

Integration with:

- Dioramas and display settings
- Lighting systems
- AV/interactive installations

4.8 Approvals & Quality Assurance

The Contractor shall obtain prior approval for:

- Concept designs, sketches, and 3D visualizations
- Material samples (silicone, pigments, hair, accessories)
- Prototype / miniature model (if required)

Final approval shall be obtained from:

- Ujjain Smart City Limited (USCL)
- Cultural & Heritage Committee

All works shall conform to approved drawings, QAP, and inspection protocols.

4.9 Operation & Maintenance

- Provision of detailed maintenance manual including cleaning procedures
- Easy repair and restoration provisions
- Periodic inspection during O&M period

4.10 Measurement & Payment

Silicone sculptures shall be treated as Non-SOR (NSR) items

Payment shall be made on milestone basis, including:

- Design & concept approval
- Prototype approval
- Fabrication completion
- Installation and final acceptance

No separate payment shall be made for sampling, mock-ups, revisions, or approvals.

4.11 Applicable Standards (Reference)

Relevant provisions of NBC 2016 (Fire & Safety)

ISO 9001 / ISO 14001 (manufacturing quality)

ASTM / EN standards for polymer materials (where applicable)

8.5.5. COMMON REQUIREMENTS FOR ALL SCULPTURES

5.1 Wind Load Design

- Designed as per IS 875 (Part 3)
- Wind speed for Ujjain region: 47 m/s (170 km/h)
- Structural stability certification mandatory

5.2 Foundation & Pedestal

- RCC M30
- Minimum base dimensions (indicative):
 - Up to 10 ft sculpture → 600×600 mm
 - 10–30 ft sculpture → 1200×1200 mm
 - 30–60 ft sculpture → 2400×2400 mm
 - 60 ft monumental → structural design required

5.3 Anchoring System

- SS316 anchor bolts (M16–M30 depending on height)
- Chemical anchor or anchor plates
- Minimum pull-out capacity ≥ 1.5 times design load

5.4 Protection & Coatings

- UV-resistant paint/coating
- Anti-corrosion primer
- Anti-graffiti nano sealant

5.5 Maintenance Requirements

- Cleaning: monthly dry wipe
- Annual inspection of:
 - bolts
 - joints
 - coatings
 - structural frame

5.6 Documentation

- 3D CAD/Revit model
- Structural drawings
- Material datasheets
- Warranty certificates for coatings
- Installation method statement

8.5.6. SPECIFIC NOTES FOR SANDIPANI PROJECT (Context Customization)

These specifications specifically align with:

- The 20 ft thematic installations
- The 60 ft monumental sculpture
- The 120 ft portal structure
- The corridor artwork & motifs

Custom Requirements:

1. Motifs inspired by Gurukul traditions, Krishna Leela, and ancient learning philosophies.

2. Materials must harmonize with basalt ghats, terracotta, lime plaster, and the temple precinct landscape.
3. Night-time illumination must be integrated in the sculpture design (LED niche lighting, concealed wiring).
4. Public safety: Edges must be smooth; no protrusions at pedestrian height.
5. Weathering performance: All sculptures must have minimum 10-year outdoor warranty on coatings.

A 9: Sustainable Measures

9.1 STP (MBBR)

- 100 KLD capacity
- Treated water reuse for landscaping

9.2 Solar Plant

- 75 kWp rooftop
- MNRE-approved panels

9.3 Solid Waste Management

- Organic waste composter
- Segregation center bins

A 10: Operations & Maintenance (10 Years)

10.1 Electrical Systems

- Uptime 98%
- Monthly maintenance logs

10.2 Landscaping

- Survival rate > 90%
- Quarterly plant health audit

10.3 Cleaning

- Daily sweeping/washing
- Weekly deep cleaning

10.4 AV & ICT

- Uptime > 95%
- Software updates every 6 months

10.5 Reporting

- Monthly O&M report
- Annual audit

[C] APPLICABLE BIS & REFERENCE INTERNATIONAL STANDARDS

A. GENERAL & OVERARCHING STANDARDS

Indian Standards (BIS)

- NBC 2016 – National Building Code of India (All Parts)

- SP 7 – National Building Code Explanatory Handbook
 - SP 20 – Handbook on Masonry Design & Construction
 - SP 27 – Common Defects in Buildings
 - CPWD General Specifications (latest)
- International References
- ISO 9001 – Quality Management Systems
 - ISO 14001 – Environmental Management Systems
 - ISO 45001 – Occupational Health & Safety

B. SURVEY, GEOTECHNICAL & EARTHWORKS

BIS Standards

- IS 2720 (Parts 1–43) – Tests on Soil
- IS 1892 – Subsurface Investigation
- IS 3764 – Excavation Work
- IS 1200 (Part 1) – Earthwork Measurement

International References

- ASTM D2487 – Soil Classification
- ASTM D1557 – Compaction (Modified Proctor)

C. CIVIL & STRUCTURAL WORKS

Concrete & RCC

- IS 456 – Plain & Reinforced Concrete
- IS 10262 – Concrete Mix Design
- IS 516 – Tests on Concrete
- IS 9103 – Admixtures
- IS 1786 – TMT Steel (Fe 500D)

Structural Design & Safety

- IS 875 (Parts 1–5) – Loads (Dead, Live, Wind, Seismic)
- IS 1893 (Part 1) – Earthquake Resistant Design
- IS 13920 – Ductile Detailing
- IS 800 – Steel Structures
- IS 807 – Cranes & Lifting (for erection of sculptures)

International References

- ACI 318 – Structural Concrete
- AISC 360 – Steel Structures
- EN 1991 / Eurocode 1 – Wind & Imposed Loads
- EN 1998 / Eurocode 8 – Seismic Design

D. ARCHITECTURAL WORKS & FINISHES

BIS Standards

- IS 2212 – Brickwork
- IS 3495 – Tests on Burnt Clay Bricks
- IS 712 – Lime for Construction
- IS 1661 – Cement Paint
- IS 3614 – Fire Doors
- IS 4021 – Timber Doors & Windows
- IS 1237 – Cement Concrete Flooring Tiles

International References

- ASTM C90 – Masonry Units
- BS 8000 – Workmanship on Building Sites

E. HERITAGE CONSERVATION & STONE WORKS

Indian / National References

- INTACH Conservation Guidelines
- ASI Conservation Manuals & Circulars
- SP 20 (Special Reference for Lime & Masonry)
Stone & Masonry (BIS)

- IS 1121 – Tests on Natural Building Stones
- IS 1124 – Water Absorption of Stone
- IS 1597 – Stone Masonry Code
- IS 3620 – Sandstone (Ashlar/Slabs)
- IS 3316 – Granite Stone

International References

- ICOMOS Charters (Venice Charter, Burra Charter)
- EN 771 – Masonry Units
- ASTM C97 / C99 – Stone Properties
- RILEM Guidelines – Historic Masonry Conservation

F. MEP, PLUMBING, DRAINAGE & FIRE SAFETY

Plumbing & Water

- IS 2065 – Water Supply in Buildings
- IS 1172 – Water Demand
- IS 4985 – UPVC Pipes
- IS 12786 – HDPE Pipes

Drainage & Sewerage

- IS 1742 – Drainage
- CPHEEO Manual on Sewerage & Sewage Treatment

Fire Safety

- NBC 2016 – Part 4 (Fire & Life Safety)
- IS 2190 – Fire Extinguishers
- IS 15105 – Fire Detection & Alarm Systems

International References

- NFPA 13 / 72 / 101 – Fire Protection & Life Safety
- ASHRAE (for HVAC in galleries)

G. ELECTRIFICATION, LIGHTING & ILLUMINATION

BIS Standards

- IS 732 – Electrical Wiring
- IS 3043 – Earthing
- IS 1646 – Fire Safety of Electrical Installations
- IS 10322 – Luminaires
- IS 16107 – LED Modules
- IS 16106 – LED Drivers
- IS 1944 – Lighting of Public Thoroughfares

International References

- IEC 60598 – Luminaires

- IEC 60364 – Electrical Installations
- IESNA Lighting Handbook – Illumination Design
- CIE Standards – Colour Temperature & Glare

H. FACADE LIGHTING, PROJECTION MAPPING & LIGHT & SOUND SHOW

Lighting & Controls

- IS 16102 – LED Control Gear
 - IS 10322 – Outdoor Luminaires
- International References
- DMX-512 / RDM Protocols – Lighting Control
 - IEC 62386 (DALI) – Digital Lighting Control
 - CIE 150 / 171 – Architectural Lighting
 - IES RP-33 – Lighting for Exterior Environments

I. AV, DIGITAL SYSTEMS & ICT

Indian / National

- TEC & MeitY Guidelines for ICT Infrastructure
 - CERT-In Cybersecurity Guidelines
- International References
- ISO/IEC 27001 – Information Security
 - ISO/IEC 11801 – Structured Cabling
 - IEEE 802.3 / 802.11 – Ethernet & Wi-Fi
 - AES Standards – Audio Systems
 - SMPTE – Projection & Media Systems

J. SCULPTURES, ARTWORK & MONUMENTAL INSTALLATIONS

Structural & Material (BIS)

- IS 875 (Part 3) – Wind Loads
 - IS 1893 – Seismic Design
 - IS 800 – Steel Structures
 - IS 2062 – Structural Steel
 - IS 9103 – Admixtures (for RCC cores)
- Stone Sculptures
- IS 1121, IS 1597, IS 3316
- Metal & Alloy Sculptures
- IS 6911 – Stainless Steel Sheets
 - IS 513 – Steel Sheets
 - IS 1079 – Mild Steel Sheets
- Composite (FRP/GFRC)
- IS 12777 – Fibre Reinforced Plastics
 - IS 1727 – Fibre Glass Reinforced Plastics
- International References
- ASTM A240 – Stainless Steel
 - ASTM A588 – Weathering Steel
 - ACI 549 – GFRC
 - EN 1176 / EN 13198 – Structural Safety of Installations
 - AWS D1.1 – Welding
 - ISO 12944 – Corrosion Protection

K. SUSTAINABILITY & ENVIRONMENT

Indian

- ECBC – Energy Conservation Building Code
- CPCB Guidelines
- MoEF&CC Environmental Norms

International

- ISO 50001 – Energy Management
- LEED / GRIHA (reference benchmarks)

L. QUALITY ASSURANCE & TESTING, DOCUMENTATION

BIS

- IS 3025 – Electrical Testing
- IS 516 – Concrete Testing
- IS 1608 – Tensile Testing of Steel

International

- ASTM E84 – Fire Performance
- ISO 9712 – NDT
- ISO 14644 – Controlled Environments (AV rooms)
- ISO 9001 – Quality Management Systems
- ISO 14001 – Environmental Management Systems (reference)
- ISO 21121 – Risk management for collections

Note:

The standards listed above are indicative and for guidance.

The Contractor may propose equivalent or superior standards, subject to review and approval of PDMC and USCL.

In case of conflict, the most stringent requirement shall apply.

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

PROCEDURE FOR PARTICIPATION IN E-TENDERING

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

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

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

JOINT VENTURE (J.V.)

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

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,
- The Lead Partner must have the share of 51% in the J.V.
 - The other partner(s) must have a share of minimum 25% in the J.V.
 - The lead partner and the other partners must also meet 51% and 26% of all qualification criteria respectively except for the requirement of work experience described in Annexure 'C'. However, all the partners combined 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,
- 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 another 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.

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	Net worth
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.	Technical Evaluation Criteria
1	Project Director B.E./B.Tech (Civil) or Equivalent Experience: 15 years in conservation/infrastructure projects
2	Conservation Architect Master's in Architectural Conservation Experience: 10 year in Heritage buildings/ASI monuments/UNESCO projects or similar
3	Structure Engineer Qualification: M.Tech in Structural Engineering Experience: 10+ year in heritage structures/ "Retrofitting" aur "Strengthening"
4	MEP Engineer (Mechanical, Electrical, Plumbing) Qualification: B.E./B.Tech in Mechanical or Electrical Engineering.

Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain. (2nd Call)

	Experience: 7 years in construction projects /Heritage buildings, services (AC, Firefighting, Lighting), ICT
5	Content Writer Qualification: Degree in History, Archaeology, Literature, Journalism Experience: 5+ years in Museum galleries, coffee table books, or heritage signage research-based content writer experience.
6	Landscape Architect Qualification: B. Arch Experience: 5 years. in restoration of Historical gardens or Beautification of surrounding area in heritage project
7	Interpretation/AV Experience Designer Qualification: Degree in Design (NID/IIT) or Fine Arts / Multimedia Design Experience: 7–10 years in Museum interiors, Light & Sound shows, Interactive Kiosks, or experience to create visitor experience through AR/VR technology

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.

Bidder shall provide adequate number of personnel, each responsible for a specific role within the project. bidder shall provide clear definition of the role and responsibility of each individual personnel. bidder shall have a defined hierarchy and reporting structure for various teams that shall be part of the project. Bidder has to provide the list of proposed Manpower for the Project. Any changes in Manpower deployment will have to be approved by the Authority.

Following table indicates the minimum number, role and qualification required for Key Positions identified for this project during Implementation Phase. However, bidder shall independently estimate the teams size required to meet the requirements of Service Levels as specified as part of this tender. All proposed positions shall be onsite throughout the entire project.

The mentioned manpower effort estimation/requirement is Minimum and if the Bidder believes that to meet/achieve the objective of project, additional capacity is required, the same may be deployed as scope of the project and requirement.

Note:

The Technical Proposal must include an undertaking by the bidder stating that none of the Experts proposed in the present proposal have been demobilized for poor/unsatisfactory performance from any project during the last three years. The undertaking must be a separate document and should form an indispensable part of the Technical Proposal.

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

S. No.	Details	Penalty to be computed on Per Month basis
1	Project Director	Rs. 100,000/- p.m.
2	Other Experts	Rs. 75,000/- 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 **rate (in figures) _____ (in words) _____ Lumpsum Item rate** 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 at par based on the Bill of Quantities and item wise rates .given therein shall be quoted.
- ii. Rates 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 ____ (QCBS H-1 Basis) or at par the Bill of Quantities and item wise rates given therein.

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

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

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

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

Yours Faithfully

Executive Director
Ujjain Smart City Limited

Annexure — M
(See clause 22 of Section 2 -ITB)

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 (QCBS H-1 Basis) basis, subject to and in accordance with the provisions of the Agreement.
- B. The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Construction Period/ Defects Liability Period and Maintenance Period} (as defined in the Agreement) in a sum of Rs..... cr. (Rupees crore) (the "Guarantee Amount").
- C. We, through our branch at (the "Bank") have agreed to furnish this bank guarantee (hereinafter called the "Guarantee") by way of Performance Security.

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

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

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

made available on demand. In the contingency of this guarantee being invoked and payment thereunder claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.

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

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

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

SECTION 3

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

Table of Clauses of GCC

Clause No.	Particulars	Clause No.	Particulars
A. General		21	Payments for Variations and / or Extra Quantities
1	Definitions	22	No compensation for alterations in or restriction of work to be carried out.
2	Interpretations and Documents	23	No Interest Payable
3	Language and Law	24	Recovery from Contractors
4	Communications	25	Tax
5	Subcontracting	26	Check Measurements
6	Personnel	27	Termination by Engineer in Charge
7	Force Majeure	28	Payment upon Termination
8	Contractor's Risks	29	Performance Security
9	Liability For Accidents To Person	30	Security Deposit
10	Contractor to Construct the Works	31	Price Adjustment
11	Discoveries	32	Mobilization and Construction Machinery Advance
12	Dispute Resolution System	33	Secured Advance
B Time Control		34	Payments Certificates
13	Programme	E. Finishing the Contract	
14	Extension of Time	35	Completion Certificate
15	Compensation for Delay	36	final Account
16	Contractor's quoted percentage	F. Other Conditions of Contract:	
C. Quality Control		37	Currencies
17	Tests	38	Labour
18	Correction of Defects noticed during the Defect Liability Period	39	Compliance with Labour Regulations
D. Cost Control		40	Audit and Technical Examination. —
19	Variations: Change in original Specifications, Designs, Drawings etc.	41	Death or Permanent Invalidity of Contractor
20	Extra Items	42	Jurisdiction

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.
- 1.17 B **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. Wards 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 Adhinyam, 1983*.
- 12.6 The Contractor shall have to continue execution of the Works with due diligence notwithstanding pendency of a dispute before any authority or forum.

B. Time Control

13. Programme

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

amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

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

14. Extension of Time

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

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

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

15. Compensation for delay

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

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

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

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

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

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

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

16. Contractor's quoted percentage

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

C. Quality Control

17. Tests

- 17.1 The Contractor shall be responsible for:
- a. Carrying out the tests prescribed in specifications, and
 - b. For the correctness of the test results, whether preformed in his laboratory or elsewhere.
- 17.2 The contractor shall have to establish field laboratory within the time specified and having such equipments as are specified in the Contract Data.
- 17.3 Failure of the Contractor to establish laboratory shall attract such penalty as is specified in the Contract Data.
- 17.4 Ten percent of the mandatory test prescribed under the specification shall be got carried out through laboratories accredited by national Accreditation Board of laboratories (NABL) By the Engineer-in-charge and the cost of such testing shall be deducted form the payments due to contractor .

18. Correction of Defects noticed during the Defect Liability Period

- 18.1 The Defect Liability Period of work in the contract shall be as per the Contract Data.
- 18.2 The Contractor shall promptly rectify all defects pointed out by the Engineer well before the end of the Defect Liability Period. The Defect Liability Period shall automatically stand extended until the defect is rectified.
- 18.3 If the Contractor has not corrected a Defect pertaining to the Defect Liability Period to the satisfaction of the Engineer, within the time specified by the Engineer, the Engineer will assess the cost of haying the Defect corrected, and the cost of correction of the Defect shall be recovered from the Performance Security or any amount due or that may become due to the contractor and other available securities.

D. COST CONTROL

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

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

20. Extra items

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

21. Payments for Variations and / or Extra Quantities

- 21.1 The rates for such additional (Extra quantity), altered or substituted work / extra items under this clause shall be worked out in accordance with the following provisions in the irrespective order:
- a. The contractor is bound to carry out the additional (Extra quantity), work at the same rates as are specified in the contract for the work.
 - b. If the item is not in the priced BOQ and is included in the SOR of the department, the rate shall be arrived at by applying the quoted tender percentage on the SOR rate.
 - c. If the rates for the altered or substituted work are not provided in applicable SOR - such rates will be derived from the rates for a similar class (type) of work as is provided in the contract (priced BOQ) for the work.
 - d. If the rates for the altered, substituted work cannot be determined in the manner specified in the sub clause (c) above - then the rates for such composite work item shall be worked out on the basis of the concerned Schedule of Rates minus/plus the percentage quoted by the contractor.
 - e. If the rates for a particular part or parts of the item is not in the Schedule of Rates and the rates for the altered, or substituted work item cannot be determined in 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 falls to comply with the notice to correct a particular defect within a reasonable period of time;
 - d) the Contractor does not maintain a valid instrument of financial security as prescribed;

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

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

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

28. Payment upon Termination

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

28.2 Payment on termination under clause 27.4 above -

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

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

29. Performance Security

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

30. Security Deposit-

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

30.2 The security deposit may be replaced by equivalent amount of bank guarantee or fixed deposit receipt assigned to the Employer, with validity up to completion of Defect Liability Period/ extended 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 = 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	18 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, &	As per Annexure - I (Format I-3)
	Penalty, if required Technical Personnel not employed (for full time staff) . In case the part time Personnel are not deployed as per requirements the payments shall be deducted on pro Rata basis.	As 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 construction program in prescribed period	As per rule (The contractor shall submit the planned as well as executed work in file compatible with Microsoft Project)
13.1	Additional supports for ensuring	As per Annexure – W

	proper Monitoring	
14	Competent Authority for granting Time Extension.	Superintending Engineer / Chief Executive Officer USCL
15	Milestones laid down for the contract	YES
	If Yes, details of Milestones	As per Annexure - O
	Liquidated damage	As per Annexure - P
17	List of equipment for lab	As per Annexure - Q
	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.</p> <p>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
34	Payment Certificates	As per Annexure - 002 (Attached at end of Contract Data)
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.

36	Competent Authority for deciding unsatisfactory Final Accounts	Executive Director, USCL
37	Salient features of some of the major labour laws that are applicable	As per Annexure – W

Annexure – 002 (Ref Clause 34: Payment Certificates)

PAYMENT SCHEDULE & SERVICE LEVEL AGREEMENT

PART A: PAYMENT SCHEDULE

A1. General Provisions

1. Payments to the Contractor shall be governed by this Annexure, read together with the Preamble to Bill of Quantities (BoQ), Scope of Work, Technical Specifications, and Conditions of Contract (GCC/SCC).
2. All payments shall be subject to certification by the Engineer-in-Charge / Authority / PDMC, as applicable.
3. Payments shall not be deemed as acceptance of defective work or waiver of the Authority's rights.
4. All rates and payments are exclusive of GST, which shall be paid separately as applicable.

A2. Payment for SOR-Based Items (Execution Phase)

1. Items covered under the MP UADD Schedule of Rates (SOR) 2025 shall be paid based on:
 - o Actual measurements of work executed; and
 - o The single quoted percentage rate (Above / Below / At Par) the applicable SOR.
2. Measurement shall be carried out strictly in accordance with:
 - o Measurement provisions of MP UADD SOR 2025; and
 - o Relevant BIS / IS Codes, unless otherwise specified.
3. Payments shall be released through Running Account (RA) Bills.
4. Variations in quantities shall be paid at the same quoted percentage rate, without any entitlement to rate revision.

A3. Payment for Non-SOR / NSR Items (Execution Phase)

1. Non-SOR / NSR items shall be paid on a lump sum, milestone-based payment system.
2. Milestones shall be linked to clearly identifiable deliverables such as approvals, fabrication, supply, installation, testing, commissioning, and final acceptance.
3. No item-wise measurement shall be required for NSR items.
4. Lump sum rates shall be deemed to include all costs, including surveys, investigations, design, drawings, IIT/NIT vetting, wind tunnel testing (where applicable), miniature

models, mock-ups, third-party inspections, approvals, testing, commissioning, and handover.

A4. Sample Milestone Structure for NSR Items (Indicative)

A4.1 Monumental Sculptures / Thematic Installations

Milestone	Description	% of Item Value
M1	Concept, theme & first-stage miniature model approval	10%
M2	Second-stage miniature model, materials & finish approval	10%
M3	Structural design, wind tunnel study (wherever required) & IIT/NIT vetting approval	15%
M4	Completion of off-site fabrication / casting	25%
M5	Erection of internal skeleton at site	15%
M6	Cladding, finishing & integrated lighting	15%
M7	Testing, commissioning & final acceptance	10%
Total		100%

A4.2 AV / Digital / Projection Mapping Systems/MEP items

Milestone	Description	%
A1	Concept, storyboards & content framework approval	10%
A2	Detailed design & equipment list approval	15%
A3	Factory Acceptance Test (FAT)	20%
A4	Supply & installation at site	25%
A5	Integration, testing & trial runs	20%
A6	Final commissioning & training	10%

A5. Payment for Operation, Management & Maintenance (O&M)

1. The Contractor shall provide Operation, Management and Maintenance (O&M) services for five (5) years from the date of commissioning/handover.
2. The Bidder shall quote year-wise lump sum rates for O&M services in the Financial Bid.
3. O&M payments shall be made on a quarterly basis, subject to compliance with SLAs defined in Part B of this Annexure.
4. Quarterly O&M payments shall be released only after certification of SLA performance by the Engineer-in-Charge / Authority.

PART B: SERVICE LEVEL AGREEMENT (SLA) – O&M PHASE

B1. General Conditions

1. SLA performance shall be evaluated quarterly.
2. Penalties shall be deducted from the quarterly O&M payment.
3. SLA compliance shall be mandatory throughout the O&M period.

B2. Quarterly SLA Matrix

Sl. No.	KPI Category	Performance Requirement	Minimum Standard	Measurement	Penalty
1	Overall Facility Availability	Buildings, utilities & public areas operational	≥ 98% uptime	Logs & inspections	1% of quarterly payment per 1% shortfall (max 5%)
2	Electrical & Lighting Systems	Internal, façade & landscape lighting	≥ 98% uptime	Maintenance records	0.5% per incident (max 3%)
3	ICT & AV Systems	CCTV, PA, Wi-Fi, AV, projection systems	≥ 97% uptime	System logs	1% per major failure (max 5%)
4	Light & Sound Show	Scheduled shows conducted	≥ 95%	Show records	1% per cancelled show
5	Cleanliness & Housekeeping	Public areas, toilets, galleries	≥ 4.5/5 rating	Joint inspection	0.5% per observation
6	Landscape Maintenance	Plant survival	≥ 90%	Quarterly audit	Replacement cost + 1% penalty
7	Heritage Asset Protection	Damage, seepage or defacement	Zero tolerance	Visual inspection	5% + rectification cost
8	Safety & Security	CCTV, guards, lighting	100% compliance	Safety audit	2% per serious lapse
9	Response Time	Breakdown complaint response	≤ 4 hrs (major), ≤ 24 hrs (minor)	Complaint register	0.5% per delay
10	Reporting	Monthly & quarterly O&M reports	100% compliance	Submission records	0.5% per delay

B3. Penalty Cap & Escalation

1. Maximum penalty in any quarter shall be limited to 10% of the quarterly O&M payment.
2. If penalties exceed 10% in two consecutive quarters or in three quarters during a year, the Authority may invoke escalation measures including warning, additional performance security, or termination as per Contract.

PART C: TAXES, DEDUCTIONS AND FINAL PAYMENT

C1. Taxes and GST

- (i) All payments under this Contract shall be exclusive of GST.
- (ii) GST shall be paid separately by the Authority at applicable rates, subject to statutory compliance and submission of valid tax invoices.

C2. Retention, Security & Deductions

- (i) Retention money, performance security, liquidated damages, penalties, and other recoveries shall be governed by the relevant provisions of the Conditions of Contract.
- (ii) The Authority reserves the right to deduct any dues, penalties, or recoveries from any payment due to the Contractor.

C3. Final Payment

Final payment shall be released only after:

- Completion of all works,
- Rectification of defects,
- Submission of as-built drawings, O&M manuals, and certificates, and
- Issuance of Completion Certificate by the Authority, subject to other contractual provisions.

Drawings

Concept Level Master Plan of the Project

CONCEPT LEVEL MASTER PLAN

LEGEND

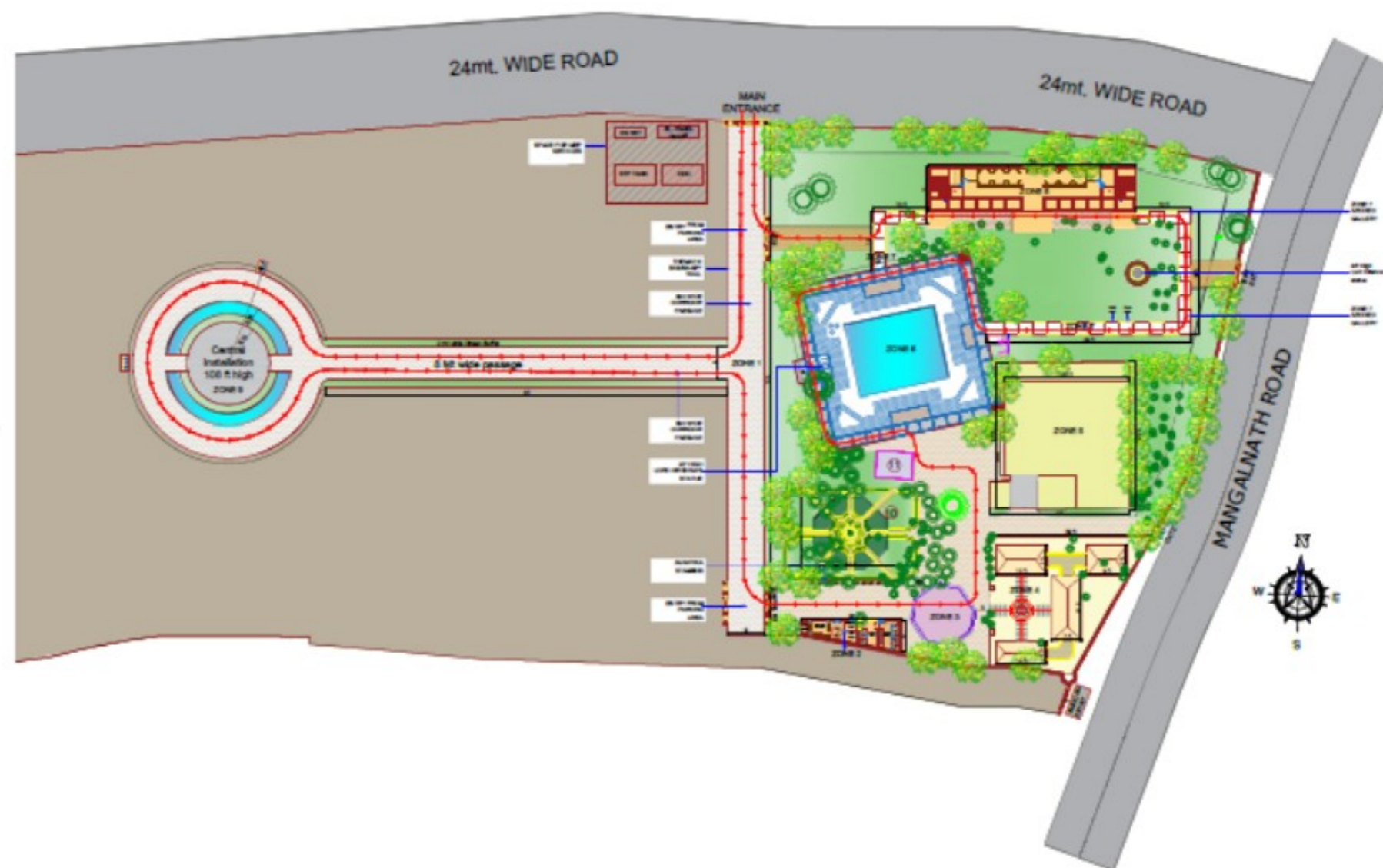
1.	ZONE 1 - 1116 sq.m. Entry Corridor & Gateway
2.	ZONE 2 - 140 sq.m. Entry Plaza & Visitor Amenities
3.	ZONE 3 - 160 sq.m. Krishna Path Circuit Introduction Zone
4.	ZONE 4 - 960 sq.m. Ashram - cottages (4 no.s)
5.	ZONE 5 - 1050 sq.m. Heritage Temple Precinct
6.	ZONE 6 - 1800 sq.m. Kund & Daily Life Interpretation Zone
7.	ZONE 7 - 332 sq.m. Chausath Kala Learning Zone
8.	ZONE 8 - G+1 - 550 sq.m. Interpretation Centre & Applied Wisdom Zone
9.	ZONE 9 Krishna Statue (108 ft Iconic Landmark Zone)
10.	Octagonal landscape - 750 sq.m.
11.	Shiv Temple - 60 sq.m.

AREA STATEMENT

TOTAL SITE AREA - 3.38 Acre (13690 sq.m.)

EXISTING BUILT UP AREA - 2106 sq.m.

PROPOSED BUILT UP AREA - 2400 sq.m.



Lord Krishna – Iconic Sculpture (Indicative) - 108’



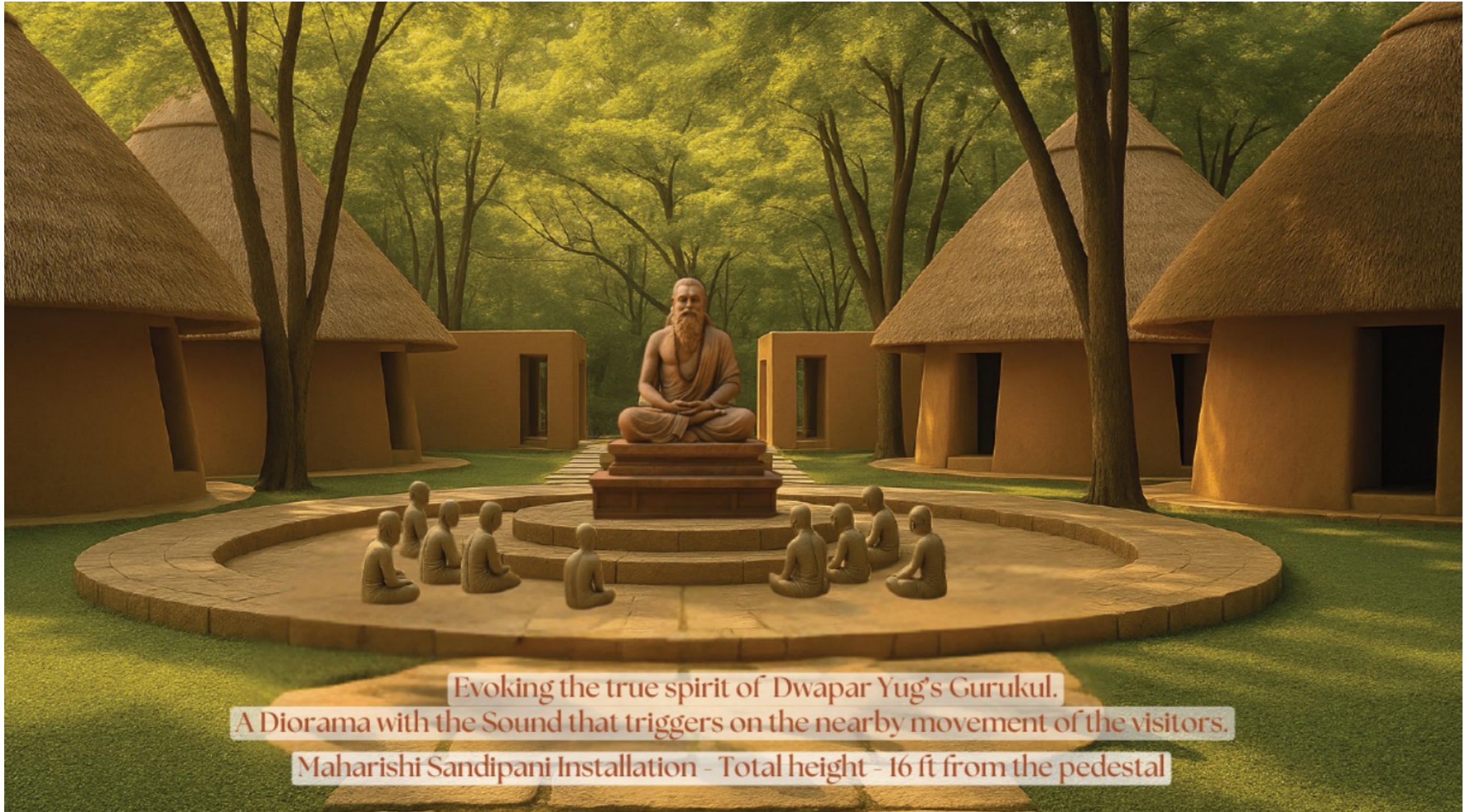
Zone 3



Main Entrance Gate

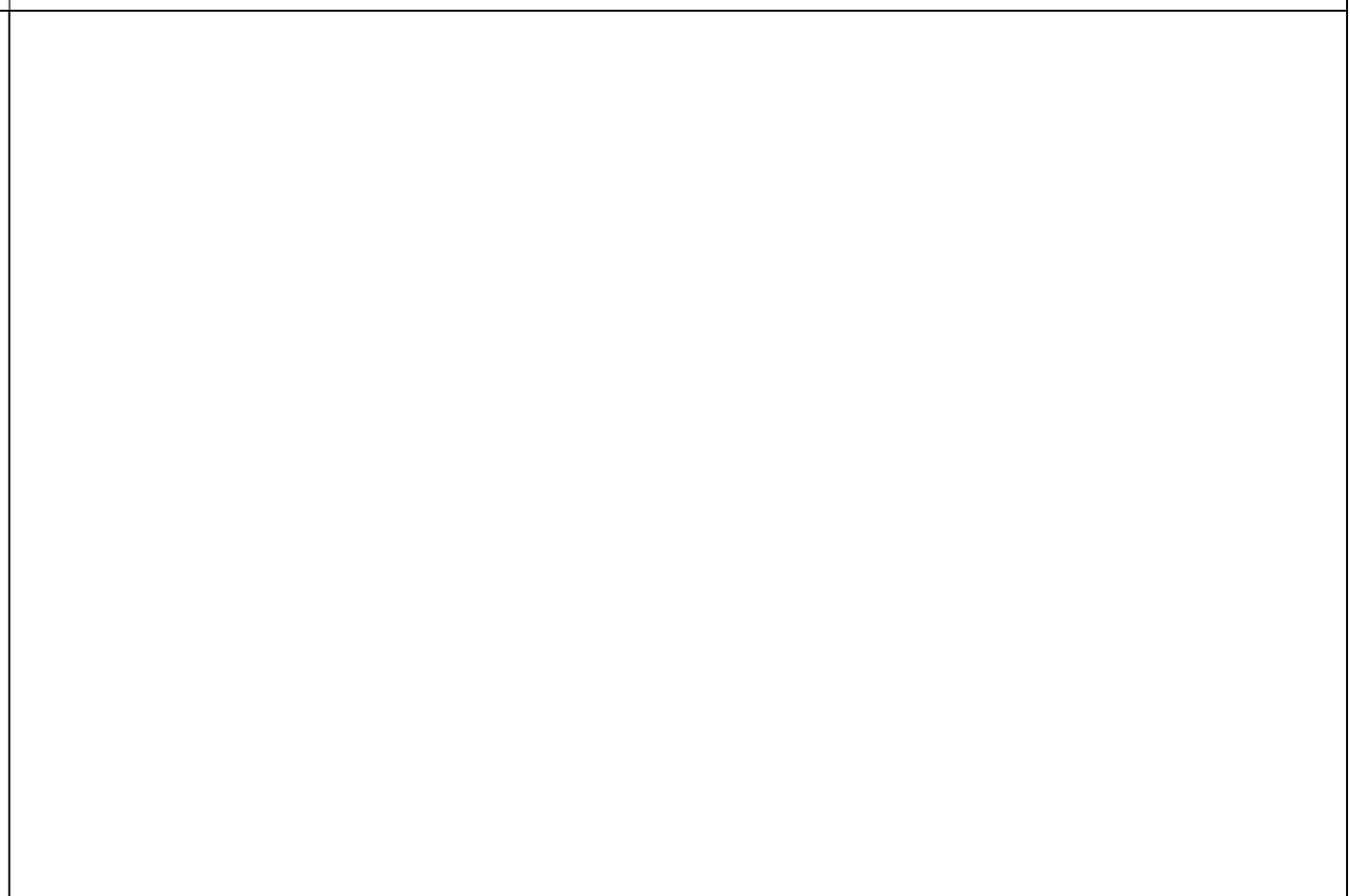
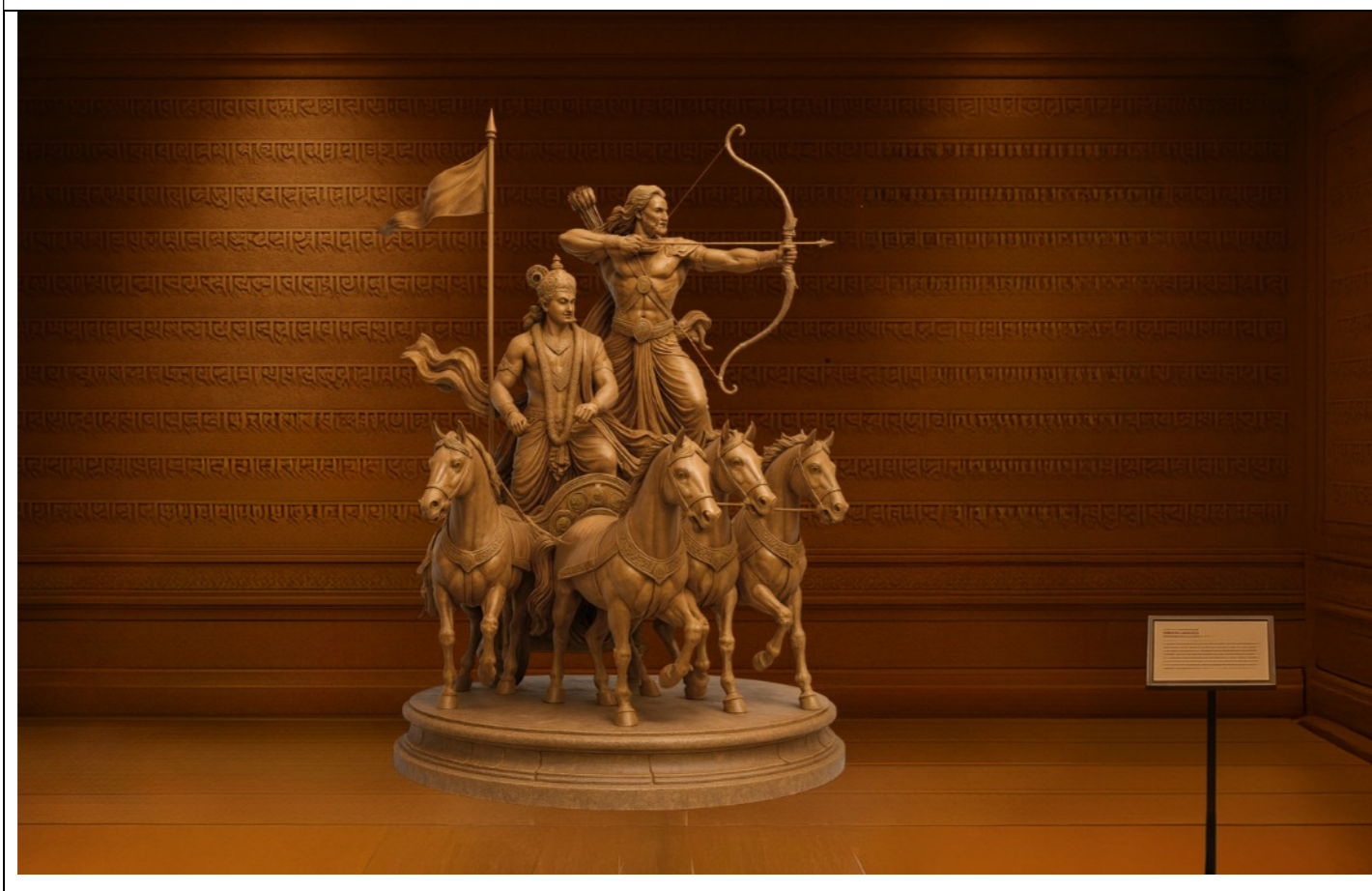


Maharishi Sandipani Gurukul



Evoking the true spirit of Dwapar Yug's Gurukul.
A Diorama with the Sound that triggers on the nearby movement of the visitors.
Maharishi Sandipani Installation - Total height - 16 ft from the pedestal

Other Features



Conceptual master plan indicating the 9 zones is provided. The contractor shall develop detailed designs (GFC drawings) for all zones ensuring interconnectivity, thematic continuity, and compliance with approved master plan

Drawings to be Prepared and Submitted by Contractor:

Below is the indicative list of drawings and related design documents to be submitted by the Contractor for approval of USCL. The Contractor shall prepare, submit, and obtain approval for the following drawings during various stages of the project. All drawings shall be submitted in **PDF + Editable (DWG/Revit)** formats.

A. Survey & Investigation Stage Drawings

1. Topographical Survey Plan (1:500)
2. Utility Mapping Plan (water, sewer, electrical)
3. Tree Survey & Landscape Inventory Map
4. Soil Investigation Drawings (Borehole logs, test results)
5. Contour & Terrain Analysis

B. Master Planning Stage Drawings

6. Master Plan Layout (1:500/1:1000)
7. Zoning Plan – Experience Areas
8. Circulation Plan – Pedestrian & Service Movement
9. Visitor Flow & Crowd Management Diagram
10. Urban Design Plan – Landscaping & Public Realm

C. Architectural GFC Drawings

11. Site Layout Plan (Building footprints, utilities)
12. Detailed Floor Plans – All Buildings
13. Elevations & Sections
14. Roof Plans
15. Door & Window Schedules
16. Interior Layouts (Galleries, Dormitories, Amenities)
17. Finishing Schedules (Flooring, Wall finishes, Paints)
18. Staircase & Ramp Details
19. Toilet & Amenity Block Details
20. Heritage-sensitive Construction Details

D. Structural GFC Drawings

21. General Notes & Design Basis Report
22. Foundation Layouts (including black cotton soil mitigation)
23. RCC Framing Plans – All Levels
24. Structural Details (Beams, Columns, Slabs)
25. Retaining Wall & Ghat Structural Details
26. Bridge Structural Drawings
27. Load Calculations & Reinforcement Schedules

E. MEP Drawings

28. Electrical Lighting Layouts (Indoor & Outdoor)
29. Power Layouts & DB Schedules
30. Earthing & Lightning Protection Drawings
31. Cable Routing & Trenching Drawings
32. Plumbing & Drainage Layouts
33. Water Supply & Storage Layouts
34. STP (MBBR) Process & Piping Diagrams
35. Fire Fighting Layouts
36. HVAC Layouts (VRV/VRF)

F. ICT, Security & AV Drawings

- 37. CCTV Layout & Camera Coverage Plan
- 38. PA System Drawings
- 39. Wi-Fi Access Point Layout
- 40. Server Room Rack Layout
- 41. Light & Sound Show Layout – Gomti Kund
- 42. Projection & AV Equipment Layouts
- 43. AR/VR Studio + Experience Room Drawings

G. Landscape Drawings

- 44. Softscape Plan (Plant species, densities, pits)
- 45. Hardscape Plan (Paths, plazas, stonework)
- 46. Irrigation/Drip Network Plan
- 47. Garden Structures (Pergolas, benches, signage)
- 48. Illumination Plan for Landscape

H. Monumental Installations & Corridor Artwork

- 49. Sculpture & Installation Structural Drawings
- 50. Corridor Artwork Elevations
- 51. Ghat Development Drawings
- 52. Portal Gate (120 ft) Drawings
- 53. Thematic Elements (20 ft Installations)

I. Construction Management Drawings

- 54. Site Logistics Plan
- 55. Safety & Barricading Plan
- 56. Phasing & Work Zone Plans

J. As-Built Drawings and O&M Manuals

- 57. As-built for all built components
- 58. O&M Manuals for all equipments

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

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

Adjustment for cement component

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

$$V_c = 0.85 \times P_c / 100 \times R \times (C_1 - C_0) / C_0$$

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

C₀ = The all India average 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_c = Percentage of cement component of the work

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

Adjustment of steel component

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

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

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

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:

$$V_b = 0.85 \times P_b / 100 \times R_x (B_i - B_0) / B_0$$

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 nearest center on the date of opening of Bids.

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

P_b = Percentage of bitumen component of the work.

Adjustment of POL (fuel and lubricant) component

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

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

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

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

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

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

Bank Guarantee Form for Mobilization and Construction Machinery Advance

Not applicable for this Contract

To

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

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

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

We further agree that no change or addition to or deletion or modification of the terms of the Contractor or Works to be performed hereunder or of any of the Contract documents which may be made between _____ [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

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

Yours truly,

Signature and Seal: _____
Name of Bank/Financial Institution: _____
Address: _____

Date: _____

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

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

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

INDENTURE FOR SECURED ADVANCES

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

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

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

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

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

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

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

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

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

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

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

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

(6) — That the advances shall be repayable in full when or before the 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 such advance or advances to the date of payment and with all costs, charges, damages and expenses incurred by the Employer 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 pay and pay the same respectively to him accordingly.

(8) — That the Contractor hereby covenants all the said materials with the repayment to the Employer of the said sum of Rs. _____ and any further sum of sums advanced as aforesaid and all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and he hereby covenants and declared that notwithstanding anything in the said agreement and with the prejudice to the power contained therein if and whenever the covenant for payment of repayment here-in before contained shall become enforceable and the money owing shall not be paid in accordance there with the Employer may at any time thereafter adopt all or any of the following courses as he may deem best:

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

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

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

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

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

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

Physical Completion Certificate

Name of Work:

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

Agreement NoDate

Amount of Contract Rs

Name of Agency

UsedMB No.

Last measurement recorded

a. Page No. &MB No. _____

b. Date _____

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

Date of issue

Executive Engineer/Engineer-in-charge

.....
.....

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

Final Completion Certificate

Name of Work:

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

Agreement noDate

Name of Agency:

Used MB No.

Last measurement recorded

a: Page No. & MB No. _____

b. Date _____

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

Agreed 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.
- l) **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 Contract Data, 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 BOQ

1. General

The Bill of Quantities (BoQ) shall be read and interpreted **in conjunction with** the complete RFP document, including but not limited to the **Scope of Work, Technical Specifications, Concept Plans/Drawings, Design Intent Documents, Applicable BIS Codes, Referenced International Standards**, and all other instructions, conditions, and addenda issued by the Employer. Any omission in the BoQ descriptions shall not relieve the Bidder of the responsibility of executing the work in full conformity with the intent of the Contract.

2. Basis of Quoting

The Bidder shall submit the Financial Bid as follows:

- **SOR-based items:** The Bidder shall quote a **single percentage rate 'Above / Below / At Par'** the applicable Schedule of Rates.
- **Non-SOR / NSR items:** The Bidder shall quote **lump sum item-wise rates** for each Non-SOR/NSR item indicated in the BoQ.

The quoted rates shall be **firm and inclusive** of all costs, overheads, profits, tools & plants, labour, materials, equipment, testing, insurance, safety measures, site establishment, temporary works, **survey, investigations, drawings, detailed design, structural vetting, approvals, mock-ups, models, third-party inspections**, and all other obligations required for successful completion of the works, **excluding GST**, which shall be payable as applicable.

3. Applicable Schedule of Rates (SOR)

Unless otherwise specified, the **applicable Schedule of Rates** for SOR-based items shall be the **Madhya Pradesh Urban Administration & Development Department (MP UADD) Schedule of Rates - 2025** (including all corrigendum and addendum in force at the time of bid submission).

4. Scope Coverage of Rates

The rates quoted by the Bidder shall be deemed to cover **complete execution of the work**, including compliance with drawings, specifications, standards, approvals, testing, commissioning, and handover, irrespective of whether such requirements are explicitly mentioned against individual BoQ items.

5. Quantities

The quantities indicated in the BoQ are **indicative and provisional**. Payment shall be made based on **actual measurements** of work executed or on **approved milestones**, as applicable. Variations in quantities shall not entitle the Bidder to any claim for revision of rates.

6. Measurement & Payment – SOR Items

Measurement and payment for **SOR-based items** shall be carried out strictly in accordance with:

- Measurement provisions of the **MP UADD SOR 2025**, and
- Relevant **Indian Standard (IS) Codes / BIS specifications**, unless otherwise specified in the Contract.

7. Measurement & Payment – Non-SOR / NSR Items

Measurement and payment for **Non-SOR / NSR items** shall be made on a **milestone-based lump sum basis**, as defined in the RFP/Contract, linked to achievement of clearly identified deliverables, stages, or outputs, duly certified by the Engineer-in-Charge/Authority.

8. Rates to be Inclusive

All rates shall be deemed to include allowances for working in restricted areas, phasing of works, protection of existing utilities and heritage assets, night work (if required), coordination with multiple agencies, and compliance with all statutory and contractual obligations.

The contractor at his own cost shall arrange (i) fully furnished and adequately equipped Project Office with amenities like water supply, electric supply, office equipment, etc.; and (ii) a vehicle for USCL project staff during the contract period.

9. Taxes & Duties

All quoted rates shall be **exclusive of GST**, which shall be paid separately by the Employer at applicable rates, subject to statutory provisions. All other taxes, duties, levies, royalties, cess, and fees shall be deemed to be included in the quoted rates unless specifically stated otherwise.

10. No Claim for Ambiguity

No claim shall be entertained on account of ambiguity, discrepancy, or omission in the BoQ if the intent of the work is reasonably inferable from the Contract documents taken as a whole.

11. Operation, Management & Maintenance (O&M) Services

The scope of the BoQ shall also include Operation, Management and Maintenance (O&M) services for a period of five (5) years from the date of commissioning/handing over of the Project, as defined in the RFP. The Bidder shall quote year-wise lump sum rates for O&M services in the Financial Bid, covering manpower, routine and preventive maintenance, repairs, consumables, utilities management, ICT/AV systems upkeep, landscape maintenance, heritage-sensitive maintenance, reporting, and compliance with all Service Level Agreements (SLAs) specified in the RFP. Payment for O&M services shall be made on a quarterly basis, subject to achievement of prescribed SLAs and certification by the Engineer-in-Charge/Authority. Failure to meet SLAs may result in deductions, penalties, or withholding of payments as per the Contract. The quoted O&M rates shall be firm, inclusive of all contingencies, and exclusive of GST, which shall be payable as applicable.

ABSTRACT OF COST		
SNO	PARTICULARS	AMOUNT IN Rs.
A	SOR Items	51,70,92,810.00
	Tender premium to be quoted by Bidder on A	To be quoted in % above/below/at par
	Sub-total A including Tender Premium	
B	Non-SOR Items (Rates to be quoted by Bidder)	
	Sub-total B	
C	Operation, Management and Maintenance for 5 (five) years (Rates to be quoted by Bidder)	To be quoted
	Sub-total C	
	Total Project Cost (A+B+C) excluding GST	
	Amount In Words	Rupees Only

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 _____

UJJAIN SMART CITY LIMITED

Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain”

ABSTRACT SUMMARY

S. no.	Description	Amount	Remark
1	Civil Work	₹ 35,09,61,304.07	
a	<i>Transpotation Work</i>	₹ 53,29,343.00	
b	<i>Surface Dressing & Earth Work</i>	₹ 1,18,08,419.13	
c	<i>PCC & RCC Works.</i>	₹ 12,03,93,952.24	
d	<i>Brick Work, Plaster & Painting Work</i>	₹ 2,42,28,017.69	
e	<i>Stone Work</i>	₹ 12,89,79,192.92	
f	<i>Door & Window</i>	₹ 55,27,274.71	
g	<i>Flooring works</i>	₹ 1,93,53,407.53	
h	<i>False Ceiling & Water Proofing</i>	₹ 60,77,990.00	
i	<i>Centering & Shuttering Works</i>	₹ 77,52,344.85	
j	<i>Plumbing and sanitary</i>	₹ 79,15,824.00	
k	<i>Landscaping & Horticulture Works.</i>	₹ 1,35,95,538.00	
2	Conservation of work	₹ 2,34,15,153.00	
3	Sewage Treatment Plant (STP 500 KLD)	₹ 61,52,390.00	
4	Solar Plant (100 KWP)	₹ 74,75,000.00	
5	Furnitures	₹ -	To be Quoted
6	Internal Interior	₹ -	To be Quoted
7	NSR Statue, Inlay & Art Work	₹ -	To be Quoted
a	<i>Alloy metal statue (Vishnu Virat Swarop108' Height, Krishna with flute 40' Height, Krishna with sudarshana chakra 20' Height)</i>	₹ -	To be Quoted
b	<i>Stone Sculpture 8' and 4' Height</i>	₹ -	To be Quoted
	<i>GFRC Work For Gate and Sculpture</i>	₹ -	To be Quoted
	<i>Stone stone inlay and 3D Painting Work</i>	₹ -	To be Quoted
8	Servicess	₹ 12,90,88,963.10	
a	<i>Electrical Internal</i>	₹ 2,39,19,795.00	
b	<i>Electrical External</i>	₹ 3,25,78,840.50	
c	<i>HVAC System</i>	₹ 2,17,98,574.00	
d	<i>Façade Lighting</i>	₹ 2,89,29,821.00	
e	<i>Access Control System</i>	₹ -	To be Quoted
f	<i>Firefighting & Fire Alarm System</i>	₹ 1,20,18,570.60	
g	<i>ICT System</i>	₹ 83,13,362.00	
h	<i>LIFT / ELEVATORS</i>	₹ 15,30,000.00	
i	<i>Public Address & Audio Vedio System</i>	₹ -	To be Quoted
j	<i>Technology</i>	₹ -	To be Quoted
	Total	₹ 51,70,92,810.17	
9	Operation & Maintenance of 5 (Five) Year	₹ -	
	Amount in Cr.	51.71 Cr.	

UJJAIN SMART CITY LIMITED

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
	A		Building Work				
	a		Transportation Work				
1	1.0		Transportation By Mechanical Transport including loading, unloading and stacking.				
	1.1	Transportation	Earth				
			3km	Cum	10000.00	₹ 174.33	₹ 17,43,300.00
			5km	Cum	15000.00	₹ 207.04	₹ 31,05,600.00
			Beyond 5km upto 10 Km Per Km	Cum/Km	5000.00	₹ 14.23	₹ 71,150.00
	1.10		Manure or sludge				
			3km or Part thereof	Cum	2700.00	₹ 151.59	₹ 4,09,293.00
						Total	₹ 53,29,343.00
	b		Surface Dressing & Earth Work				
2	2.1	Surface dressing	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.				
				100 Sqm	150.00	₹ 803.00	₹ 1,20,450.00
3	2.5	Excavation surface	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m lead and lift up to 1.5 m, disposed soil to be levelled and neatly dressed, All kinds of soil				
				Sqm	30000.00	₹ 43.00	₹ 12,90,000.00
4	2.6	Excavati on soil	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				
				Cum	23839.50	₹ 147.00	₹ 35,04,406.50
5	2.24	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	14303.70	₹ 95.00	₹ 13,58,851.50
	2.25	Extra for additional lift	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		All kinds of soil.	Cum	95358.00	₹ 30.00	₹ 28,60,740.00
6	2.26	Under floor filling stone dust	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.	Cum	2712.70	₹ 672.00	₹ 18,22,934.40
7	2.27	Under floor filling	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.				
	2.27.1	Hard muram hard copra	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)	Cum	1356.35	₹ 393.00	₹ 5,33,045.55
8	2.30	Jungle clearing	Clearing jungle including uprooting of rank vegetation, grass, brush wood,trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	100 Sqm	159.87	₹ 414.00	₹ 66,186.18
9	15.2	Demolishing cement concrete	Demolishing cement concrete manually/by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in- Charge.				
	15.2.2	1:4:8 or leaner	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix).	Cum	50.00	₹ 356.00	₹ 17,800.00

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CIVIL & Plumbing WORKs

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
10	15.3	Demolishing R.C.C.	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.	Cum	120.00	₹ 844.00	₹ 1,01,280.00
11	15.6	Demolishing brick work	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.				
	15.6.3	In cement mortar.	In cement mortar	Cum	135.00	₹ 487.00	₹ 65,745.00
12	15.8	Demolishing stone rubble masonry	Demolishing stone rubble masonry 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:				
	15.8.2	In cement mortar	In cement mortar	Cum	55.00	₹ 582.00	₹ 32,010.00
13	15.10	Removing mortar from and cleaning stones	Removing mortar from and cleaning stones and concrete articles (net quantity of stacks of cleaned materials will be measured) :				
	15.10.2	In cement mortar	In cement mortar	Cum	35.00	₹ 162.00	₹ 5,670.00
14	15.23	Dismantling tile/ kota /marble/ Granite work	Dismantling tile/ Kota stone/ Marble / Granite work in floors/walls and roofs laid in cement mortar including stacking material within 50 metres lead.				
	15.23.1	Upto 25mm thick	For thickness of tiles 10 mm to 25 mm	Sqm	500.00	₹ 17.00	₹ 8,500.00
	15.23.2	Above 25mm thick	For thickness of tiles above 25 mm and upto 40 mm.	Sqm	800.00	₹ 26.00	₹ 20,800.00
						Total	₹ 1,18,08,419.13
	c		PCC & RCC Works.				
15	4.1	C.C. upto plinth level	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level :				
	4.1.1	With 20mm metal	With 20mm nominal size graded stone aggregate.				
	4.1.1.4	M-10	M-10Nominal (Mix-1 Cement : 3 sand : 6 graded stone aggregate)	Cum	1877.85	₹ 3,890.00	₹ 73,04,836.50
16	5.30	RMC M-20	Providing and laying in position ready mixed concrete (RMC) of M-20 grade for reinforced cement concrete work, using cement content as per approved design mix and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering, finishing and reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. Note: Minimum cement content is @ 320 kg/cum. (No extra payment for using extra cement as per requirement of mix design.)				
	5.30.1	Upto plinth	All works up to plinth level	Cum	3065.24	₹ 6,332.00	₹ 1,94,09,099.68
	5.33.2	Upto floor V level	All works above plinth level up to floor V level	Cum	3832.35	₹ 6,814.00	₹ 2,61,13,632.90
17	5.28	Extra for richer BMC mix/ RMC	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.)				
	5.28.1	M-25	Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum)	Cum	6897.59	₹ 110.00	₹ 7,58,734.90
	5.28.2	M-30	Providing M-30 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 340 kg/cum)	Cum	689.76	₹ 140.00	₹ 96,566.26

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CIVIL & Plumbing WORKs

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
18	5.41	Expansion joint for roofs	Providing and fixing of expansion joint system of approved make and manufactures for various roof locations as per approved drawings and direction of Engineer-In- Charge. The joints shall be of extruded aluminum base members with, self aligning and self centering arrangement support plates as per ASTM B221-02. The system shall be such that it provides watertight roof to roof/roof to corner joint cover expansion control system that is capable of accommodating multidirectional seismic movement without stress to its components. System shall consist of metal profile that incorporates a universal aluminum base member designed to accommodate various project conditions and roof treatments. The cover plate shall be designed of width and thickness required to satisfy movement and loading requirements and secured to base members by utilizing manufacturer's pre- engineered self-centering arrangement that freely rotates/moves in all directions. The Self centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. The Joint System shall resists damage or deterioration from the impact of falling ice, exposure to UV, airborne contaminants and occasional foot traffic from maintenance personnel. Provision of Moisture Barrier Membrane in the Joint System to have water tight joint is mandatory requirement. (Material shall				
	5.41.2		Roof Joint for 150 mm gap	Meter	120.00	₹ 5,017.00	₹ 6,02,040.00
19	5.16	Reinforcement	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	TMT (FE 500D or more)	Thermo-Mechanically Treated bars.FE 500 D or more conforming to IS 1786	KG	820234.90	₹ 80.00	₹ 6,56,18,792.00
20	5.45	Teracotta jali	Providing and fixing Eco Friendly Teracotta jali size length 210 x width 210x thick 70 mm including m.s. frame , all joints, matching pigment etc. complete with compressive strength 12-15 mpa. Density of material 1200-1300 kg per m3 and water absorption range 12-15 %. As per drawing and as directed by Engineer in charge.	Sqm	250.00	₹ 1,961.00	₹ 4,90,250.00
						Total	₹ 12,03,93,952.24
		d	Brick Work, Plaster & Painting Work				
21	6.5	Brick work with bhatta, bricks in foundation	Brick work with well brunt open bhatta, bricks, crushing strength not less than 25kg /cm2 and water absorption not more than 20% in foundation and plinth i/c curing etc complete.				
	6.5.2	CM 1:6	Cement Mortar 1:6 (1 cement: 6 coarse sand).	Cum	237.18	₹ 4,155.00	₹ 9,85,482.90
22	6.6	Brick work with bhatta, bricks in superstructure	Brick work with well brunt open bhatta, bricks, crushing strength not less than 25kg / cm2 and water absorption not more than 20% in superstructure above plinth level and up to floor two level i/c curing etc complete.				
	6.6.2	CM 1:6	Cement Mortar 1:6 (1 cement : 6 sand)	Cum	950.71	₹ 4,350.00	₹ 41,35,597.20
23	6.14	Half brick masonry open bhatta bricks	Providing half brick masonry with well burnt open bhatta bricks crushing strength not less than 25 kg /cm2 and water absorption not more than 20% in superstructure above plinth level and up to floor two level				
	6.14.2	CM 1:4	Cement mortar 1:4 (1 cement : 4 sand)	Sqm	851.97	₹ 522.00	₹ 4,44,728.34
24	6.20	Brick work in plain arches	Brick work in plain arches in superstructure including centering and shuttering complete with chimney bricks having crushing strength not less than 40kg /cm2 and water absorption not more than 15% in cement mortar 1:3 (1 cement : 3 sand).	Sqm	176.00	₹ 8,507.00	₹ 14,97,232.00

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
25	13.1.1	12 mm cement plaster	12 mm cement plaster of mix :				
	13.1.2	01:04	1:4 (1 cement: 4 sand)	Sqm	8881.20	₹ 173.00	₹ 15,36,447.60
26	13.5	15 mm cement plaster finished with a floating coat	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix				
	13.5.2	01:04	1:4 (1 cement : 4 sand)	Sqm	851.97	₹ 220.00	₹ 1,87,433.40
27	13.8	6 mm cement plaster	6 mm cement plaster of mix : 1:3 (1 cement : 3 sand)	Sqm	4368.00	₹ 144.00	₹ 6,28,992.00
28	13.6	18 mm cement plaster cm 1:5& 1:4 smooth finish	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 sand) finished with a top layer 6mm thick cement plaster 1:4 (1 cement : 4 sand).	Sqm	5884.00	₹ 220.00	₹ 12,94,480.00
29	13.12	22 mm pebble dash plaster	Pebble dash plaster upto 10m height above ground level with a mixture of washed pebble or crushed stone 6mm to 12.5mm nominal size dashed over and including fresh plaster in two layers under layer 12mm cement plaster 1:4 (1 cement: 4 sand) and top layer 10mm cement plaster with cement mortar 1:3 (1 cement: 3 sand) mixed with 10% finely grounded hydrated lime by volume of cement	Sqm	3992.00	₹ 284.00	₹ 11,33,728.00
30	13.14	Extra for water proofing material in plaster	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	per 50 kg cement used in the mix	4660.00	₹ 79.00	₹ 3,68,140.00
31	Intach 2016 9.8	Mud Plaster	Mud plaster 1:3:1(1 lime slaked : 3 Mud:1 coarse sand)	Sqm	1512.00	₹ 1,232.53	₹ 18,63,588.38
32	Approved in Rudrasagar Project Non SOR	Thatch roofing	Supply & Installation of Thatch roofing for Dhyan Kuti ar Chota Rudrasagar. The Roofing is a traditional roofing method that involves using dry vegetation such as straw, water reed, & sarkanda grass. Strong thatched roofing with sakanda leaves including Balli rafters 5 to 8cm dia at average 80cm c/c and purlins of bamboo of 4 to 5cm dia at average 30 cm c/c and cover with polythene and 3 layer thached roof of minimum thickness 200 to 300mm.	Sqm	594.00	₹ 3,712.00	₹ 22,04,928.00
33	Approved in Rudrasagar Project Non SOR	liping wall floor	Providing and liping wall floor and plinth with mud mix with cowdung.	Sqm	430.00	₹ 200.00	₹ 86,000.00

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CIVIL & Plumbing WORKs

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
34	Approved MRIDA Project	Mandna Art	Mandna as approved in MRIDA Project	Sqm	1200.00	₹ 743.00	₹ 8,91,600.00
35	13.41	White cement based putty	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 Chief Engineer will be required.	Sqm	13879.20	₹ 74.00	₹ 10,27,060.80
36	13.51	Textured exterior paint	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.	Sqm	13109.20	₹ 132.00	₹ 17,30,414.40
37	13.52	Acrylic smooth paint (exterior)	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 elongationof 150% and water proofing of upto 3 bars on vertical surface	Sqm	8402.00	₹ 138.00	₹ 11,59,476.00

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
38	13.54	Deluxe multi surface paint	Finishing walls by any mechanical or manual means with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				
	13.54.2	Painting steel work	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 and manufacture	Sqm	4051.00	₹ 71.00	₹ 2,87,621.00
39	13.64	Synthetic enamel paint on new work	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade: Two or more coats on new work.	Sqm	1350.33	₹ 53.00	₹ 71,567.67
40	13.76	Mealamine polishing	Mealamine polishing on door windows by preparing the surface applying putty base course. Prepare the surface smooth by sand papering and then applying mealamine polish with air compressor. Two or more coats on new works including a coat of wood filler.	Sqm	2500.00	₹ 807.00	₹ 20,17,500.00
41	13.81	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.	Sqm	1500.00	₹ 324.00	₹ 4,86,000.00
42	13.104	Roller blinds / vertical blinds	Providing and fixing of roller blinds / vertical blinds of washable fabric duly fixed with powder coated aluminum channel and clamps having nylon rope for manual operation of approved colour and company as per director by Engineer-In-Charge.	Sqm	200.00	₹ 950.00	₹ 1,90,000.00
43	13.105	Wallpaper	Providing and fixing of Wallpaper of approved design, colour, pattern, as per direction of Engineer-In-Charge including all material, labour, fixing and installation.				
	13.105.3	Customize Wallpaper	Customize design wallpaper				
						Total	₹ 2,42,28,017.69
	e	S	Stone Work				
44	7.38	Dry stone cladding upto 10m height	Providing and fixing dry stone cladding upto 10 metre height with 30mm thick gang saw cut stone with (machine cut edges) of uniform colour and size upto 1mx1m, fixed to structural steel frame work and/ or with the help of cramps, pins etc. And sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer- in-charge. (The steel frame work, stainless steel cramps and pins. shall be paid for separately.)				
	7.38.1	Red Sand Stone	Red sand stone	Sqm	545.00	₹ 1,639.00	₹ 8,93,255.00
45	7.38	Structural steel for dry stone cladding	Providing and fixing structural steel frame (for dry stone cladding with 30 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square/rectangular tube in the required pattern as per architectural drawing including cost of cutting, bending, welding etc. The frame work shall be supported in wall with the help of MS brackets/lugs of angle iron/ flats etc. which shall be welded to the frame and embedded in brick wall with cement concrete block 1:2:4 (1 cement: 2 sand: 4 graded stone aggregate 20mm nominal size) of size 300x200x300mm including cost of necessary centering and shuttering and with approved expansion hold fasteners on CC/RCC surface including drilling necessary holes. Approved cramps/ pins etc. shall be welded to the frame work to support stone cladding the steel work will be given a priming coat of Zinc primer as approved by Engineer-in- charge and painted with two or more coats of epoxy paint (Shop drawings shall be submitted by the contractor to the Engineer-in-charge for approval before execution).The frame work shall be fixed in true horizontal and vertical lines/ planes. (Only structural steel frame work shall be measured for the purpose of payment, stainless steel clamps shall be paid for separately and nothing extra shall be paid.)	Kg	6250.00	₹ 138.00	₹ 8,62,500.00

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
45	7.39	Structural steel for dry stone cladding	Providing and fixing adjustable stainless-steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gram), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	Each	5500.00	₹ 208.00	₹ 11,44,000.00
46	11.30	Mirror polished pre moulded granite flooring 18 mm thick	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.				
	11.30.1	Stone slab over 0.50sqm	Area of slab over 0.50 sqm				
	11.30.1.1	Granite (fine grained)	Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitter	Sqm	350.00	₹ 2,642.00	₹ 9,24,700.00
	11.30.2	Stone slab upto 0.50sqm	Area of slab upto 0.50 sqm				
	11.30.2.1	Granite (fine grained)	Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitter	Sqm	450.00	₹ 2,455.00	₹ 11,04,750.00
47	11.33	Polished Granite Stone	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,				
	11.33.1	Flamed Finish	Flamed Finish Granite	Sqm	120.00	₹ 2,542.00	₹ 3,05,040.00
47	NSR	Stone Work	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. 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				

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
	a		Stone thickness 70 mm , design as per attached drawings. For Wall	Sqm	5560.00	₹ 7,671.00	₹ 4,26,50,760.00
	b		COLUMN WORK , stone thickness 90mm to 150 mm ,	Cum	397.60	₹ 1,26,098.00	₹ 5,01,36,564.80
	c		FASCIA WORK , stone thickness 100 mm to 300 mm , .	Cum	155.00	₹ 1,26,098.00	₹ 1,95,45,190.00
	d		BRACKET (Average thickness of stone 200mm, 450X450	Cum	27.00	₹ 1,26,098.00	₹ 34,04,646.00
48	7.21	Stone work for wall lining	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):				
	7.21.1	Red stone machine cut face	Red sand stone - Exposed face machine cut and table rubbed with rough backing.				
	7.21.1.4		40 mm thick	Sqm	2329.00	₹ 1,257.00	₹ 29,27,553.00
49	7.27	Horizontal chajja of stone	Providing and fixing horizontal chajja of stone 40 mm thick and upto 80 cm projection in cement mortar 1:4 (1 cement : 4 sand) including pointing in whitecement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment matching the stone shade:				
	7.27.1		Red sand stone:	Sqm	145.00	₹ 744.00	₹ 1,07,880.00
50	7.28	Sand stone sun-shade	30mm red sand stone sun-shade (chisel-dressed) supported on red sand stone brackets, fixed in walls with cement mortar 1:4 (1 cement: 4 sand) including finishing complete.	Sqm	125.00	₹ 891.00	₹ 1,11,375.00
51	7.29	Red Sand Stone Bracket	Providing and fixing red sandstone brackets 55x22.5x45cm sunk and moulded including providing and fixing with 4 Nos. gun metal cramp 25x6mm 30 cm long and dowel bars 7.5 cm long 6mm dia as per design.	Each	768.00	₹ 1,672.00	₹ 12,84,096.00
52	7.30	Stone work in copings, cornices, string courses and plinth courses	Stone work, plain in copings, cornices, string courses and plinth courses, upto 75 mm thick in Cement mortar 1:6 (1 cement : 6 sand) including pointing with white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade.				
	7.30.1	Red stone	Red Sand Stone	Cum	37.00	₹ 13,187.00	₹ 4,87,919.00
53	7.31	Stone Jali	Providing and fixing stone jali 40mm thick throughout in cement mortar 1:3 (1cement :3 sand) including pointing in whitecement mortar 1:2 (1white cement: 2stone dust) with an admixture of pigment , matching the stone shade, jali slab without any chamfers etc.				
	7.31.1	Red stone	Red Sand Stone	Sqm	212.96	₹ 5,797.00	₹ 12,34,529.12
54	BSR 2019 6.9	Stone Cladding	Stone work (machine cut edges) for Wall cladding/ Veneering work up to 10 m height with 20 to 30 mm thick Pink Sand stone (Bansi Paharpur) and backing filled with a grout of 12mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : (To be secured to the backing by means of cramps which shall be paid separately)				
	BSR 2019 6.9.2	Stone Cladding	Exposed face Machine cut	Sqm	750.00	₹ 2,305.00	₹ 17,28,750.00
55	BSR 2019 6.10	butch work	Wall lining butch work upto 10m height with Red/ Pink Sand stone 20 to 30 mm thick (machine cut edges) stone strips of minimum length 300 mm and required width including embedding every tenth layer and bottom most layer in masonry or concrte after making necessary chases of size 75x75 mm and by providing layer of 75 mm thick strips i/c 12 mm thick bed of cement mortar 1 : 3 (1 cement : 3 Coarse sand) i/c ruled pointing in cement mortar 1 :2 (1 white cement : 2 stone dust) with an admixture of pigment to match the shade of stone complete as per direction of Engineer in Charge				
	BSR 2019 6.10.2	butch work	Exposed face machine cut	Sqm	95.00	₹ 1,323.00	₹ 1,25,685.00
						Total	₹ 12,89,79,192.92
	f		Door & Window				

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CIVIL & Plumbing WORKs

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
56	9.1	Wood work in frames of doors, windows	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia and length (hold fast lugs or dash fastener shall be paid for separately).				
	9.1.1	2nd class teak wood	Second class teak wood	Cum	4.98	₹ 90,618.00	₹ 4,50,824.55
57	9.5	Paneled wooden shutters excluding, panelling/ glazing	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws excluding, panelling/glazing which will be paid for separately, all complete as per direction of Engineer-in-charge.				
	9.5.1	2nd class teak wood	Second class teak wood				
	9.5.1.1	35 mm	35 mm thick shutters	Sqm	196.20	₹ 2,776.00	₹ 5,44,651.20

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
58	9.6	Panelling, glazing and wire mesh in shutters	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:				
	9.6.4	Ply wood (5 ply)	Ply wood 7 ply, 9 mm thick				
	9.6.4.2	Decorative one side	Decorative plywood one side decorative veneer and commercial veneer on other face (Type 1) conforming to IS 1328 BWR Type	Sqm	550.00	₹ 1,369.00	₹ 7,52,950.00
59	9.6.7	Float glass	Float glass panes				
	9.7.7.2	5mm	5 mm thick glass pane (weight not less than 12.5 kg/sqm)	Sqm	90.54	₹ 1,046.00	₹ 94,704.84
60	9.41	Curtain rod chromium plated brass plate	Providing and fixing of 1.25 mm thick chromium plated brass plate, with two chromium plated curtain rods brass brackets fixed with C.P. brass screws and wooden plugs, etc., wherever necessary complete:				
	9.41.3	25 mm	25 mm dia.	Mtr	220.00	₹ 382.00	₹ 84,040.00
61	9.43	M.S. grills and windows	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.				
	9.43.1	Fixed to steel windows	Fixed to steel windows by welding.	KG	1380.00	₹ 119.00	₹ 1,64,220.00
62	9.46	M.S. wire mesh	Providing and fixing fly proof galvanized M.S. 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. 0.63 mm all complete.				
	9.46.1	With 2nd class teak wood beading	With second class teak wood beading 62X19 mm	Sqm	420.00	₹ 1,000.00	₹ 4,20,000.00
63	9.65	S.S. sliding door	Providing and fixing ISI marked stainless steel sliding door bolts with nuts and screws etc. complete:				
	9.65.1	300 mm	300x16 mm	Each	115.00	₹ 389.00	₹ 44,735.00
64	9.66	S.S. tower bolt	Providing and fixing ISI marked stainless steel tower bolt black finish, (Barrel type) with necessary screws etc. complete :				
	9.66.1	250 mm	250x10 mm	Each	115.00	₹ 148.00	₹ 17,020.00
65	9.69	S.S. handles	Providing and fixing ISI marked stainless steel handles with necessary screws etc. complete :				
	9.69.1	125 mm	125mm	Each	70.00	₹ 60.00	₹ 4,200.00
66	9.76	Stainless steel hanging type floor	Providing and fixing Stainless steel hanging type floor door stopper with necessary screws, etc. complete.	Each	90.00	₹ 103.00	₹ 9,270.00
67	9.95	Aluminium hydraulic door closer door weight upto 36 kg to 80 kg	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm) with double speed adjustment with necessary accessories and screws etc. complete.	Each	81.00	₹ 1,186.00	₹ 96,066.00
68	10.12	Pressed steel door frames	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 mildsteel 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:				
	10.12.1	Profile B size 80mmx50mm single rebate	Profile B of 1.60mm thick single rebate of size 80mmx50mm				
	10.12.1.1	Fixing with adjustable lugs	Fixing with adjustable lugs with split end tail to each jamb.	Meter	495.00	₹ 402.00	₹ 1,98,990.00

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
69	11.75	Granite door frame	Providing and fixing 16mm thick gang saw cut mirror polished pre moulded and pre polished machine cut Granite of approved shade, colour and texture of Granite Door frame. in cement mortar 1:3 (1 cement :3 sand) including pointing with an admixture of pigment to match the shade including fixing of granite stone door frame with epoxy resin based adhesive including secured to the backing by means of cramps, drilling of hole with rawl plugs and screws 75mm long cleaning etc. complete. Including rubbing, curing, moulding and polishing edges to give high glossy finish and drilling of hole for fixing stainless steel hinges, aldrop, towerbolte etc complete at all levels as per instruction of Engineer-in-Charge.				
	11.75.1	100 mm wall	Granite Door frame for 100mm thick wall Thickness.	Meter	50.00	₹ 1,010.00	₹ 50,500.00
	11.75.2	200 mm wall	Granite Door frame for 200mm thick wall Thickness.	Meter	80.00	₹ 1,512.00	₹ 1,20,960.00
69	21.1	Aluminium work for doors, windows, ventilators & partitions	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) :				
	21.1.1	Fixed	For fixed portion				
	21.1.1.2	Powder coated	Powder coated aluminium (minimum thickness of powder coating 50 micron)	KG	300.00	₹ 416.00	₹ 1,24,800.00
70	21.1.2	Openable	For shutters of doors, windows and ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately).				
	21.1.2.2	Powder coated	Powder coated aluminium (minimum thickness of powder coating 50 micron)	KG	700.00	₹ 484.00	₹ 3,38,800.00
71	21.3	Glazing in aluminium door, window, ventilator shutters and partitions	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) :				
	21.3.2	5.0 mm	With float glass panes of 5.0 mm thickness (weight not less than 12.50 kg/sqm)	Sqm	118.24	₹ 948.00	₹ 1,12,091.52
72	9.18	Shutters decorative type 1st class hard wood and well matched teak 3 ply	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.				
	9.18.1	35 mm butt hinges	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	88.20	₹ 2,833.00	₹ 2,49,870.60
73	10.14	Steel work in built up tubular trusses/frame	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.				
	10.14.1	Hot finished welded tubes	Hot finished welded type tubes.	KG	7500.00	₹ 117.00	₹ 8,77,500.00
74	21.9	Silicon sealant	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 5 mm depth and 5 mm width	Meter	1200.00	₹ 53.00	₹ 63,600.00
75	21.12	Aluminium Tubular handle bar	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick and length as required with SS screws etc .complete as per direction of Engineer-in-Charge.				

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Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
	21.12.2	Powder coated	Powder coated minimum thickness 50 micron aluminium tubular handle bar.	Meter	12.00	₹ 458.00	₹ 5,496.00
76	21.13	Brass locks	Providing and fixing Brass 100 mm mortice latch and lock with 6 levers without pair of handles(best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	Each	10.00	₹ 400.00	₹ 4,000.00
77	21.18	Frameless toughened glass door shutter	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 arrangement and 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).	Sqm	50.00	₹ 4,958.00	₹ 2,47,900.00
78	21.22	Toughened glass for partitions	Providing and fixing 12 mm thick toughened glass including all connectors and fixing accessories all complete for partitions, cubicals etc. (excluding frame work) As per direction of Engineer-in-Charge.	Sqm	15.00	₹ 2,554.00	₹ 38,310.00
79	21.23	Toughened glass railing	Providing and fixing 12mm thick toughened glass railing complete height of 1400mm with top 50m X 50mm teak wood hand railing finish with PU polish glass fitted with 45 mm dia SS glass holding studs.	Sqm	35.00	₹ 11,765.00	₹ 4,11,775.00
						Total	₹ 55,27,274.71
	g		Flooring works				
79	11.36	Kota stone flooring	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) having thickness of slab 25 mm (Area of slab to be over 0.25 sqm) Note: - Deduction shall be made for not mirror polishing according to item no 11.43	Sqm	6630.00	₹ 1,174.00	₹ 77,83,620.00
80	11.38	Kota stone in risers, skirting, dado and pillars	Kota stone slabs in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.				
	11.38.2	20mm Thick	20mm Thick	Sqm	132.60	₹ 1,231.00	₹ 1,63,230.60
81	11.40	Edge moulding of stone work	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.	Mtr	300.00	₹ 269.00	₹ 80,700.00
	11.40.2	Granite work.	Granite work.				
82	11.44	Fine dressed stone flooring flush joints	Fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1cement : 5 sand) with joints finished flush.				
	11.28.1	40 mm Red stone	Red Sand stone	Sqm	1966.00	₹ 578.00	₹ 11,36,348.00
83	11.81	Vitrified floor- tiles full body skirting, riser, dado and wall lining	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, dado and wall lining laid on 12mm thick cement mortar 1:4(1cement :4sand) including grouting the joints with white cement and matching pigments etc. complete				
	11.81.1	Light colour	In light colour and shades as ivory, beige blanco, grey etc.				
	11.81.1.2	600X600	(b) Size 600X600mm thickness 9-10mm	Sqm	174.00	₹ 1,196.00	₹ 2,08,104.00
84	11.80	Vitrified floor- tiles full body	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				
	11.80.1	Light colour	In light colour and shades as ivory, beige blanco, grey etc.				
	11.80.1.2	600X600	(b) Size 600X600mm thickness 9-10mm	Sqm	380.00	₹ 1,206.00	₹ 4,58,280.00

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Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
85	11.82	Vitrified tiles (PGVT)/(GVT)	Providing and laying digital print random design(PGVT)/(GVT) vitrified tiles in different sizes with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality including grouting the joints with white cement and matching pigments etc. complete				
	11.82.1	For floors	For floor glossy/ rustic /stain/matt finished laid on 20mm thick cement mortar 1:4 (1 cement:4sand)				
	11.82.1.5	600X1200	Size 600X1200 mm thickness 9-10 mm	Sqm	290.00	₹ 1,235.00	₹ 3,58,150.00
86	11.83	Vitrified tiles (PGVT)/(GVT) in skirting, riser, dado and wall lining	Providing and laying digital print random design(PGVT)/(GVT) vitrified tiles in different sizes with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality / premium in skirting, riser, dado and wall lining laid our 12mm thick cement mortar 1:3 including grouting the joints with white cement and matching pigments etc. complete				
	11.83.1	For skirting, dado and wall lining	For skirting, riser, dado and wall lining etc. glossy/ rustic /stain/matt finished in all colours and shades				
	11.83.1.4	600X1200	Size 600X1200 mm thickness 11-12mm	Sqm	603.40	₹ 1,224.00	₹ 7,38,561.60
87	11.19	Marble stone flooring	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 sandand 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)				
	11.19.1	Makrana white	Makrana white second quality.	Sqm	750.00	₹ 3,051.00	₹ 22,88,250.00
	11.84	Granite work in wall lining, skirting etc	Granite work gang saw cut (polished machine cut) of thickness 12 mm for wall lining, skirting, risers of steps and dado (vener work), back filling 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 beaching by means of cramps, which shall be paid for separately).				
	11.84.1	Area of tiles not less 0.18 sqm	Fine granite dark Black/dark Red/ White with self design/ pattern/ crystals of other colors of glitter.	Sqm	545.00	₹ 2,296.00	₹ 12,51,320.00
	11.84.1.1	Fine granite pattern	Fine granite dark Black/dark Red/ White with self design/pattern/crystals of other colors of glitter				
88	11.71	Brick on edge flooring	Brick on edge flooring with bricks of class designation 7.5 on a bed of 12 mm cement mortar, 1:6 (1 cement : 6 sand) including filling the joints with same mortar, with common burntclay non modular bricks	Sqm	396.00	₹ 960.00	₹ 3,80,160.00
	11.71.2	200 mm	200mm thick				
89	11.3	Cement concrete flooring with hardener topping 62 mm thick	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement: 2 sand: 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix: 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50kg of cement or as per manufactures specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	Sqm	150.00	₹ 431.00	₹ 64,650.00
90	11.66	Concrete interlocking paver block	Providing and laying 60mm thick factory-made cement concrete paver block of approved shape and colour of M -30 grade made of C&D waste by block making machine with vibratory compaction laid in required pattern and including over 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer- in-charge	Sqm	2210.00	₹ 642.00	₹ 14,18,820.00
91	RUIDP 2023	Cobble stone Flooring	Flooring with Cobble stone of approx. Size 125x125x75 mm (thick) laid on 25 mm average thick cement mortar 1:3 (1 cement : 3 Coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the stone, laid in approved pattern complete in all respect as per direction of Engineer-in-charge.	Sqm	1473.33	₹ 1,822.00	₹ 26,84,413.33

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
92	MP UADD SOR 2021 (VOL 3) 11.16		Providing and fixing of White Marbles circular/oval in shape (stone) pebbles of size 2"to 2.50" dia in natural colour at site of work including loading, unloading, carriage with all taxes paid etc. and as per direction of Engineer-in-Charge.	Kg	1000.00	₹ 22.00	₹ 22,000.00
93	28.35	Stone bench	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 fromweather 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.	Each	18.00	₹ 9,700.00	₹ 1,74,600.00
94	28.37	Stone Table	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: length1000mm, width 600mm, legs height 750 mm.	Each	18.00	₹ 7,900.00	₹ 1,42,200.00
						Total	₹ 1,93,53,407.53
	h		False Ceiling & Water Proofing				
95	12.58	False ceiling with boards (G.I. grid suspension)	Providing and fixing false ceiling atall height including providing andfixing 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 mmcentre to centre, one flange fixed tothe ceiling with dash fastener 12.5 mmdia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in adirection perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including				
	12.58.2	12.5 mm thick gypsum board	12.5 mm thick tapered edge gypsum board				
	12.58.2.1	Plain gypsum board	Plain board conforming to IS: 2095- Part I: 2011 (Board with BIS certification marks).	Sqm	3990.00	₹ 750.00	₹ 29,92,500.00
	12.58.2.3	Moisture resistant gypsum board.	12.5mm thick moisture resistant gypsum plasterboards Moistbloc as per BS EN 520 confirming to water absorption class H1 with total water absorption < 5%, Green Pro certified by CII	Sqm	1330.00	₹ 920.00	₹ 12,23,600.00
95	22.7	Water proofing treatment brick coba	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 usingbroken bricks/brick bats 25 mm to 115mmsize with 50% of cement mortar 1:5 (1 cement : 5 sand) 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				

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Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
		Water proofing treatment brick coba	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. 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.				
				Sqm	2036.00	₹ 885.00	₹ 18,01,860.00
96	22.5	Water proofing treatment two course cement mortar	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 (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.	Sqm	290.00	₹ 207.00	₹ 60,030.00
		Water proofing treatment two course cement mortar					
						Total	₹ 60,77,990.00
	i		Centering & Shuttering Works				
97	5.9	Centering and Shuttering	Centering and shuttering in cluding strutting, propping etc. and removal of form for:				
	5.9.1	Upto plinth	Foundations, footings, bases of columns, etc. for concrete upto plinth level	Sqm	1901.25	₹ 190.60	₹ 3,62,378.25
	5.9.2	Walls	Walls (any thickness) in cluding attached pilasters butter esses, plinth beams and string courses etc.				
	5.9.2.1	Upto plinth level	Up to plinth level.	Sqm	750.00	₹ 219.00	₹ 1,64,250.00
	5.9.2.2	Above plinth	Above plinth upto 3.6 m height from plinth level	Sqm	1200.00	₹ 330.00	₹ 3,96,000.00
	5.9.3	Suspended floors, roofs etc	Suspended floors, roofs, landings, balconies and access platform.	Sqm	3776.00	₹ 439.60	₹ 16,59,929.60
	5.9.5	Lintels, Beams and Cantilevers	Lintels, beams, girders, bressumers and cantilevers	Sqm	9082.60	₹ 356.00	₹ 32,33,405.60
	5.9.6	Columns	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	1033.00	₹ 471.20	₹ 4,86,749.60
	5.9.7	Staircase	Stairs, (excluding landings) except spiral- Staircases.	Sqm	474.00	₹ 435.70	₹ 2,06,521.80
	5.9.9	Arches	Arches, domes,vaults upto 6m span	Sqm	125.00	₹ 1,141.60	₹ 1,42,700.00
	5.9.15	Extra for circular or other geometrical shape	Extra for shuttering in circular work or any other geometrical shape (20% of respective centering and shuttering items).	Sqm	-	20.00%	
	5.9.19	Weather shade and chajjas	Weather shade, Chajjas, corbels etc., including Edges.	Sqm	990.00	₹ 534.20	₹ 5,28,858.00
98	5.10	Extra for additional height in centering, shuttering	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all levels, over a height of 3.6 m, for every additional height of 1 metre or part thereof (Plan area to be measured)	Sqm	2696.00	₹ 212.00	₹ 5,71,552.00
	5.10.1	Suspended floors	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured).				
						Total	₹ 77,52,344.85
	j		Plumbing and sanitary				
99	19.46	HDPE DWC pipes below ground	Providind, laying and jointing HDPE Double Wall corrugated (DWC) pipes (excavation to be paid seperately)				
	19.46.1	100 mm dia to 110 mm dia	100 mm dia to 110 mm dia	Meter	60.00	₹ 160.00	₹ 9,600.00
	19.46.2	150 mm dia to 160 mm dia	150 mm dia to 160 mm dia	Meter	90.00	₹ 300.00	₹ 27,000.00
	19.46.3	200 mm dia	200 mm dia	Meter	120.00	₹ 608.00	₹ 72,960.00
	19.46.4	250 mm dia	250 mm dia	Meter	200.00	₹ 802.00	₹ 1,60,400.00
	19.46.5	300 mm dia	300 mm dia	Meter	200.00	₹ 915.00	₹ 1,83,000.00

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
100	19.11	Manhole circular 0.91m deep	Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix(1 cement : 3 sand : 6 graded stone aggregate 40mm nominal size), and making necessary channel 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 all complete as per standard design : 0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg., fixed in cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size) including centering shuttering all complete. (Foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :				
	19.11.2	Sewer bricks	With Sewer bricks conforming to IS : 4885	Each	20.00	₹ 7,958.00	₹ 1,59,160.00
101	19.12	Extra depth beyond 0.9 depth for manhole circular type 0.91m dia	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91m to 1.67m	Each	10.00	₹ 4,648.00	₹ 46,480.00
	19.12.2	Sewer bricks	With Sewer bricks conforming IS : 4885				
102	19.18	Orange colour safety foot rest	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25mm and over all minimum length 263 mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to withstand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	500.00	₹ 266.00	₹ 1,33,000.00
103	2.9		Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m : (No extra lift is payable if work is done by mechanical means) in all kinds of soil				
	2.9.1	<80mm dia	Pipes, cables etc., not exceeding 80 mm dia.	Meter	500.00	₹ 96.00	₹ 48,000.00
	2.9.2	>80mm dia/ <300 mm dia	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia.	Meter	500.00	₹ 156.00	₹ 78,000.00
	2.9.3	>300mm dia	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm.	Meter	500.00	₹ 244.00	₹ 1,22,000.00
104	18.6	CPVC pipes internal work	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.				
	18.6.1	Exposed on wall					
	18.6.1.1	15 mm	15 mm nominal outer dia Pipes.	Meter	260.00	₹ 129.00	₹ 33,540.00
	18.6.1.2	20 mm	20 mm nominal outer dia Pipes.	Meter	530.00	₹ 153.00	₹ 81,090.00
	18.6.1.3	25 mm	25 mm nominal outer dia Pipes.	Meter	315.00	₹ 177.00	₹ 55,755.00
	18.6.1.4	32 mm	32 mm nominal outer dia Pipes.	Meter	945.00	₹ 254.00	₹ 2,40,030.00

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Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
	18.6.1.5	40 mm	40 mm nominal outer dia Pipes.	Meter	660.00	₹ 354.00	₹ 2,33,640.00
	18.6.1.6	50 mm	50 mm nominal outer dia Pipes.	Meter	350.00	₹ 528.00	₹ 1,84,800.00
105	18.6.2	Concealed	Concealed work including cutting chases and making good the walls etc.				
	18.6.2.1	15 mm	15 mm nominal outer dia Pipes.	Meter	140.00	₹ 207.00	₹ 28,980.00
	18.6.2.2	20 mm	20 mm nominal outer dia Pipes.	Meter	165.00	₹ 234.00	₹ 38,610.00
	18.6.2.3	25 mm	25 mm nominal outer dia Pipes.	Meter	210.00	₹ 288.00	₹ 60,480.00
	18.6.2.4	32 mm	32 mm nominal outer dia Pipes.	Meter	195.00	₹ 360.00	₹ 70,200.00
106	18.7	CPVC pipes for external work	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. This included jointing of pipes and fittings with onestep CPVC solvent cement, trenching, refilling and testing of joints complete as per direction of Engineer-in- Charge. External Work				
	18.7.1	15 mm	15 mm nominal outer dia Pipes.	Meter			
	18.7.2	20 mm	20 mm nominal outer dia Pipes.	Meter			
	18.7.3	25 mm	25 mm nominal outer dia Pipes.	Meter			
	18.7.4	32 mm	32 mm nominal outer dia Pipes.	Meter			
	18.7.5	40 mm	40 mm nominal outer dia Pipes.	Meter			
	18.7.6	50 mm	50 mm nominal outer dia Pipes.	Meter			
106	18.29	Brass bib cock	Providing and fixing brass bib cock of approved quality				
	18.29.2	20 mm dia	20 mm nominal bore	Each	22.00	₹ 338.00	₹ 7,436.00
107	18.30	Brass stop cock	Providing and fixing brass stop cock of approved quality :				
	18.30.2	20 mm dia	20 mm nominal bore	Each	22.00	₹ 344.00	₹ 7,568.00
108							
109	18.15	Gun metal non- return valve	Providing and fixing gun metal non- return valve of approved quality (screwed end) :				
	18.15.3	40 mm Dia	40 mm nominal bore				
	18.15.3.1		Horizontal		11.00	₹ 587.00	₹ 6,457.00
	18.15.3.2		Vertical	Each	11.00	₹ 715.00	₹ 7,865.00
110	18.17	Uplasticised PVC connection	Providing and fixing uplasticised PVC connection pipe with brass unions :				
	18.17.1		30 cm length				
	18.17.1.2		20 mm nominal bore	Each	15.00	₹ 129.00	₹ 1,935.00
111	18.28	Polyethylene water storage tank	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	Ltr	28000.00	₹ 7.00	₹ 1,96,000.00
112	18.57	Cutting holes R.C.C. floors and roofs	Cutting holes upto 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4(1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size) including finishing complete so as to make it leak proof.	Each	130.00	₹ 129.00	₹ 16,770.00
113	19.4	Unplasticised PVC pipe Below ground	Providing and laying below ground unplasticised PVC pipe to with stand working pressure of 4 kg/cm2 solid 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.				
	19.4.1	110 mm Dia	110 mm diameter OD (min. wall thickness 3.2mm)	Meter	430.00	₹ 234.00	₹ 1,00,620.00

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Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
	19.4.2	160 mm dia	160 mm diameter OD (min. wall thickness 4.0mm)	Meter	700.00	₹ 477.00	₹ 3,33,900.00
114	18.13	CPVC gate valve	Providing and fixing CPVC gate valve with knob of approved quality.				
	18.13.1	25 mm Dia	25 mm nominal bore	Each	25.00	₹ 428.00	₹ 10,700.00
	18.13.2	32 mm Dia	32 mm nominal bore.	Each	25.00	₹ 500.00	₹ 12,500.00
	18.13.3	40 mm Dia	40mm nominal bore	Each	25.00	₹ 584.00	₹ 14,600.00
	18.13.4	40 mm Dia	50mm nominal bore	Each	25.00	₹ 749.00	₹ 18,725.00
115	19.31	Soak pit square	Constructing soak pit 1.20x1.20x1.20m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20m long complete as per standard design.				
				Each	2.00	₹ 3,172.00	₹ 6,344.00
116	25.3	Wall Hung WC	Providing and fixing white vitreous china European Wall hung Anti germ Fluoro-Polymer Coated water closet of approved shape with soft closing seat cover, and 7.2 litre Low level slim dual flushing, PP (Poly Propylene) made 80 mm thick concealed flushing cistern, flushing capacity 3 litre/6 litre, with all fittings and fixtures complete including cutting and making good the wall and floors wherever required.				
	25.3.1	Size 380X520X375 mm	Anti germ Fluoro-Polymer Coated (Nano coating) Wall hung water closet Size 380X520X375 mm with solid poly propylene made soft closing seat cover (Premium Range)	Each	50.00	₹ 26,412.00	₹ 13,20,600.00
117	25.1	Orrisa Pan	Providing and fixing white vitreous china Anti germ Fluoro-Polymer Coated Water closet squatting pan with 100 mm sand cast Iron P and S- trap, and 7.2 liter Low level, dual flush, PP (Poly Propylene) made open slim wall hung cistern capacity 3 liter/6 liter flushing, with all fittings and fixtures complete including cutting and making good the wall and floors wherever required.				
	25.1.1	Size 440X575X250mm	White Vitreous china Anti germ Fluoro-Polymer coated Orissa Pattern W. C. Pan of Size 440X575X250mm With integral foot rests. (Premium Range)	Each	9.00	₹ 4,726.00	₹ 42,534.00
118	25.10	Counter Top Wash Basin	Providing and fixing white vitreous china type Anti germ Fluoro-Polymer Coated Wash Basin with 15 mm Table mounted single lever Tall boy basin mixture, (cartridge size 32 mm) 15mm quarter turn angular stop cock, 32 mm C. P. brass made waste coupling length 130mm and 32 mm C. P. Brass Made Bottle Trap size 200x300mm fittings and fixtures complete including Painting of fittings and cutting and making good the wall and floors wherever required.				
	25.10.2	Size 530x420x140 mm	White vitreous china type Anti germ fluoropolymer coated counter top wash basin Size 530x420x140mm with tall boy basin mixture, (cartridge size 32 mm). (Premium Range)	Each	32.00	₹ 16,785.00	₹ 5,37,120.00
119	25.12	Flat Back Half Stall Sensor Urinal :	Providing and fixing white vitreous china Flat Back Anti germ Fluoro-Polymer Coated urinal (Inbuilt spreaders, Inbuilt Bottle trap and inbuilt ceramic Waste coupling) with sensotronic concealed type flushing valve battery & electrical operated type (9V transformer) for urinal complete set with installation box with control cock complete including painting of fittings and brackets, cutting and making good the wall and floors wherever required .				
	25.12.1	Size340x325x65 0 mm	White Vetricious China Anti germ Fluoro-Polymer Coated Urinal Size 340x325x650 mm with sensotronic concealed type flushing valve battery & electrical operated type (9V transformer) for urinal complete set with installation box with control cock. (Premium Range)	Each	23.00	₹ 23,927.00	₹ 5,50,321.00
120	25.16	Urinal glass partition (Curve):	Providing & Fixing 8mm thick froasted Urinal glass partition size height 900 mm top width 450mm and bottom width 300mm brass made bracket with chrome plating. (Premium Range)	Each	25.00	₹ 7,631.00	₹ 1,90,775.00
121	25.18	Pillar cock	Providing and fixing in position best Indian (bonut size 24mm, ceramic disc size 19mm and min. body thickness 2mm, nickel plating 0.10 micron and chrome plating 0.3 micron, quarter turn) Pillar cock. (Premium Range)	Each	32.00	₹ 2,326.00	₹ 74,432.00

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Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
129	MP PHE SOR 2023 11.3	Submersible pump	Supplying & Installation of Energy efficient five star BEE rating ISI Marked required capacity of Three Phase, 50 Hz, 415V, deep well submersible pump Steel body, suitable for 6" tube well with Control Panel Starter suitable for Submersible pump with dry run protection, single phase preventer, connections, including 3 mtr. submersible flat cable ISI marked 3 core copper wire, length equal to head of the pump at duty point + 3mtr. in single or double run (as per requirement of the set/control panel. The size of the cable should be so selected that voltage drop at motor terminal does not exceed the limit of the rated voltage) clamps, bore cap etc. as required as per specifications but excluding pipe, SS/ Nylon wire rope.				
	MP PHE SOR 2023 11.3.6	7.5 HP Motor	7.5 HP Head Mt. 129-52 Discharge LPM 60-270	Each	3.00	₹ 59,518.00	₹ 1,78,554.00
130	PHE SOR 2023 9.13		Providing and fixing gun metal non- return valve of approved quality (screwed end) :				-
	PHE SOR 2023 9.13.5		65mm Dia				
	PHE SOR 2023 9.13.5.1		Horizontal	Each	3.00	₹ 1,484.00	₹ 4,452.00
	PHE SOR 2023 9.13.5.2		Vertical	Each	3.00	₹ 1,701.00	₹ 5,103.00
131	PHE SOR 2023 11.5	submersible flat cable	Supplying and laying of submersible flat cable ISI marked 3 core copper wire of suitable size with proper clamping of approved make.				
	PHE SOR 2023 11.5.3	6.0 Sq.mm	6.0 Sq.mm multi strand	P Meter	200.00	₹ 247.00	₹ 49,400.00
132	PHE SOR 2023 8.67	Butterfly Valve	Providing & fixing following cast iron butterfly valves including jointing & testing with cost of jointing material such as bolts, nuts and rubber insertion all complete as per IS :13095-1991.				
	PHE SOR 2023 8.67.1	PN - 1.0	50mm dia	Each	5.00	₹ 1,963.00	₹ 9,815.00
	PHE SOR 2023 8.67.2	PN - 1.0	65mm dia	Each	8.00	₹ 2,395.00	₹ 19,160.00
133	PHE SOR 2023 8.69	Single Air Valve	Providing & fixing following cast iron single air valves, small orifice with screwed end as per IS: 14845-2000 including jointing & testing with cost of jointing material and rubber insertion all complete as per IS 13095- 1991.				
	PHE SOR 2023 8.69.1	PN - 1.0	15mm dia	Each	10.00	₹ 736.00	₹ 7,360.00
	PHE SOR 2023 8.69.2	PN - 1.0	40mm dia	Each	10.00	₹ 894.00	₹ 8,940.00
134	PHE SOR 2023 28.5		Providing and laying non-pressure (NP4) RCC socket & spigot pipes with rubber gasket joint including testing of joints.				
	PHE SOR 2023 28.5.1	28.5.1	250 mm dia	Meter	50.00	₹ 1,016.00	₹ 50,800.00
	PHE SOR 2023 28.5.2	28.5.2	300 mm dia	Meter	33.00	₹ 1,466.00	₹ 48,378.00
135	19.27	Road gully chamber 50x45x60cm	Constructing brick masonry road gully chamber 50x45x60cm with bricks in cement mortar 1:4 (1 cement : 4 sand) including 500x450 mm precast R.C.C. horizontal grating with frame complete as per standard design :				₹ -
	1 9. 2. 7. 2	Fly ash bricks	With fly ash bricks 100 key/cm2 strength	each	50.00	₹ 4,900.00	₹ 2,45,000.00
136	19.28	Road gully chamber 45x45x77.5cm	Constructing brick masonry road gully chamber 45x45x77.5cm with bricks in cement mortar 1:4 (1 cement : 4 sand) with precast R.C.C. vertical grating complete as per standard design :				
	1 9. 2. 8. 2	Fly ash bricks	With fly ash bricks 100 kg/cm2 strength	each	30.00	₹ 6,983.00	₹ 2,09,490.00
137	19.5	Cement concrete 1:3:6 all-round unplasticised PVC pipes	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:				
	1 9. 5. 1	110 mm dia	110 mm dia	Metre	100.00	₹ 576.00	₹ 57,600.00
	1 9. 5. 2	160 mm dia	160 mm dia	Metre	100.00	₹ 704.00	₹ 70,400.00

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
	19.5.3	200 mm dia	200 mm dia	Metre	100.00	₹ 821.00	₹ 82,100.00
138	19.9	Rectangular manhole	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 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20mm 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				
	19.9.1	90x80 cm	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)				
	19.9.1.1	Well burnt bricks	With well burnt bricks	Each	15.00	₹ 7,997.00	1,19,955.00
139	19.10	Extra depth for manholes	Extra for depth for manholes. With Modular bricks class designation 40				
	19.10.1	90x80 cm	Size 90x80 cm				
	19.10.1.1	Well burnt bricks	With well burnt bricks	meter	15.00	₹ 6,176.00	92,640.00
						Total	79,15,824.00
	h		Horticulture Works.				
140	28.2	Supplying and stacking of good earth	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).	Cum	5000.00	₹ 511.00	₹ 25,55,000.00
141	28.3	Supplying and stacking sludge	Supplying and stacking sludge at site including royalty and carriage (sludge measured in stacks will be reduced by 8% for payment).	Cum	2500.00	₹ 643.00	₹ 16,07,500.00
142	28.4	Supplying and stacking dung manure (fym) farm yard manure	Supplying and stacking at site dump manure from approved source, including carriage (manure measured in stacks will be reduced by 8% for payment) :	Cum	2500.00	₹ 734.00	₹ 18,35,000.00
143	28.9	Mixing earth and sludge or manure (fym) farm yard manure	Mixing earth and sludge or manure in the required proportion specified or directed by the Engineer-in-charge.	Cum	10000.00	₹ 11.00	₹ 1,10,000.00
143	28.8	Spreading of sludge, dung manure and / or good earth	Spreading only of Sludge manure or/and good Earth: Spreading of sludge farm yard manure or/ and good earth in required thickness (cost of sludge, farm- yard manure or/and good earth to be paid for separately).	Cum	10000.00	₹ 16.00	₹ 1,60,000.00
144	28.10	Planting of Grass	Grassing with Selection No.1 grass including watering and maintenance of the lawn for 30 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the grass and good earth shall be paid for separately):				
	28.10.2	In rows 7.5 cm	In rows 7.5 cm apart in both directions.	100 Sqm	50.00	₹ 2,404.00	₹ 1,20,200.00
145	28.14	Digging holes refilling mixed with manure or sludge	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) :				
	28.14.1	120 cm dia	Holes 120 cm dia and 120 cm deep.	each	100.00	₹ 141.00	₹ 14,100.00
	28.14.2	60 cm dia	Holes 60 cm dia and 60 cm deep.	each	760.00	₹ 61.00	₹ 46,360.00
	28.14.3	45 cm dia	Holes 45 cm dia and 45 cm deep.	each	300.00	₹ 19.00	₹ 5,700.00
	28.14.4	30 cm dia	Holes 30 cm dia and 30 cm deep.	each	600.00	₹ 9.00	₹ 5,400.00
146	28.15	Planting different variety of plants	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).				

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CIVIL & Plumbing WORKs

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
	28.15.1	Shrubs (75-90 cm height)	Bahunia Tomentosa, Beloperone Species, Caselpinnia Pulcherima, Bird of Paradise, Callandra Emarginata, Callandra Hybrida, Cassia Bi flora, Cassia Laevigata, Cestrum Nocturnum, Dombeya Mastersii, Euphorbia Caracasana, Euphorbia Pulcherima, Excorea bi color, Excorea tri color, Ficus Blackii, Ficus Reginold, Ficus Panda, Gardenia, Gulphinia, Jasminoides, Hamelia Pattens, Heliconia, Hibiscus Rosasinensis, Hibiscus Verigated, Hibiscus Viceroy, Jatropha Multifida, Largestomia Indica, Malpighia Coccigera, Murraya Exotica, Murraya Koeniggi, Murraya Sambucum, Mussaenda Erythrophylla, Nerium Oleander, Nyctanthus Arbortristis, Plumbago Capensis, Putranjeeva Roxburghii, Tabernaemontana Coronaria, Tabernaemontana Divaricata, Tecoma Gaudi Chaudi, Tecoma Stans, Thevetia Nerifolia, Thuja Compacta and equivalent plants.	each	300.00	₹ 80.00	₹ 24,000.00
	28.15.2	Creepers plants (height :30cm to 45 cm)	Allamanda Cathartica, Allamanda Grandiflora, Allamanda Violacea, Begonia Venustha, Boughan Villas (Variety : Butiana, Lady Mary Bearing, Mahaara, Mohan, Scarlet Queen Variagata, Glabra Formosa, Peruviana Odissi, Partha, Shubhra, Thimma, Spectabilis, L.N. Birla, Refulgens), Clerodendrum Splendens, Clerodendrum Thompsonae, Ipomea Purpurea, Jasminum Grandiflorum, Jasminum Humile (Yellow), Passiflora Caerulea (Rakhi Bel), Petrea Volubilis, Quis Qualis Indica, Tecoma Grandiflora, Veronia Elaegnifolia (Curtain Creeper), Mandvella, Garlic Creeper, Callimitis	each	1200.00	₹ 50.00	₹ 60,000.00
	28.15.3	Ground cover plants height: 30cm-45cm	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), Haemalia Mini and similar plants.	each	1500.00	₹ 50.00	₹ 75,000.00
	28.15.4	Winter seasonal height: 20-30 cm	Any of one from Alyssum, Anemone, Antirrhinum Hybrid, Aster Hybrid, Begonia and its different varieties, Calendula, Carnation, Coleus, Daisy, Dianthus, Fressia, Gazania, Impatiens, Kalanchoe, Marigold Inca, Missam branthemum, Nemasia, Nasturium, Ornamental Kale, Pansy Hybrid Sakata, Petunia Hybrids such as Bravo, Star and Picotee, Salvia, Stock, Stock, Verbena	each	350.00	₹ 42.00	₹ 14,700.00
	28.15.5	Summer and rainy seasonal plants	Any of one from Celosia, Caladium Hybrid, Cockscomb, Cosmos, Gaillardia, Gomphorena, Kochchea, Portulacca, Sunflower Hybrid, Sunflower Single, Tapiocca Variegated (Manihot Esculenta), Vinca, Zinnia Hybrids.	each	500.00	₹ 42.00	₹ 21,000.00
147	28.17	Edging (bricks)	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	Brunt Clay	Common burnt clay modular bricks	Mater	600.00	₹ 31.00	₹ 18,600.00

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CIVIL & Plumbing WORKS

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
148	16.23	Rain Water Harvesting Stainless Steel 304 Filter (250 mm Length & 200 mm Width + 90 mm Dia) for 150 Square mtr. Area.	Providing & Installation of Rainwater filter made out of ABS plastics material, with two stages of filtration and live monitoring facility, designed to harvest rooftop rainwater without wasting water, must be designed to operate on gravity of rainwater from roof through down pipe, having inlet (id) of 110 mm. outlet (id) of 110 mm; provided with SS 304 non clogging wedge wire filter screen in curved shape, of not less than 250 mm length and width not less than 200 mm, having horizontal 0.5 mm v shaped continuous slots for filtration, supported on vertical welded supports at interval of not less than 15 mm, provided with heavy duty rubber gasket on all sides, built with handle from SS rod having diameter of not less 3 mm and height not less than 25 mm and width not less than 65 mm. The unit must have front outlet to drain impurities and also to act as safety feature. The unit must have second filter element of HDPE material, not less than 90 mm diameter and not less than 455 mm length, with 200 micron filtration capacity, to be placed at bottom inside the clean water outlet of the filter unit. Filter must have transparent, openable lid made out of ABS material for live monitoring of rainwater harvesting process. The drain outlet or safety feature must not be less than 40 mm diameter (OD) moulded in front bottom side of unit. Readymade rotational moulded, heavy duty "built in flush unit" to drain out first rain shower or flush valve 110 mm must be supplied along with filter. <u>Rainwater filter must</u>	Each	2.00	₹ 7,064.00	₹ 14,128.00
			UV stabilizers. Rainwater filter's depth to be not less than 300 mm, length to be not less than 250 mm and height must not be less than 400 mm overall, minimum four moulded clamps must be moulded both at top and bottom to fix the unit firmly on the wall with Steel Screws.				
149	NSR Approved in Pedestrian Bridge Project	40mm Thick Black Basalt Flooring	Providing & fixing of 40 mm thickness Basalt Stone Shot Blasted as per given design and pattern including preparing the surface and levelling in the desired line, laid in 20mm thickness 1:2 cement mortar bed including cement float, machine cutting dressing, levelling, jointing, filling joint with matching colour cement slurry/cement mortar (1:2) inclusive of pointing the joint (Joints thickness 3mm) fixed over surface /concrete bed or as shown on the drawing, curing, finishing, champhored edges wherever necessary etc complete as directed by Engineer -in - charge.	Sqm	1200.00	₹ 3,891.00	₹ 46,69,200.00
150	NSR Taken from Maharaj wada (II) Project	Reverse Osmosis (RO) 40 LPH	Supply, installation, testing & commissioning of skid mounted fully Automatic Reverse Osmosis of output capacity 40 LPH with appropriate thickness designed at a minimum Flux at inlet and necessary recovery: With Centralized Water Coolers of SS 304 MOC with 80 LPH cooling capacity with inbuilt storage capacity as per system with insulation of required thickness & of appropriate material and with power supply of 220/ 230+/-10% volts, 1 phase 50 Hz A.C. supply	Each	4.00	₹ 1,04,500.00	₹ 4,18,000.00
151	11.59	Turf Paver	Providing and laying 500x500x40mm thick Turf paver on 150mm thick sub grade of compacted bed of 20mm nominal size stone aggregate and base course with 50mm thick sand and filling joints with sand including spreading, well ramming, consolidating and finishing smooth etc. all complete as per direction of Engineer- in-charge.	Sqm	950.00	₹ 1,457.00	₹ 13,84,150.00

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CIVIL & Plumbing WORKs

Sr. No.	MP PWD SOR 2024	Item Name	Descriptions	Unit	Qty.	Rate	Amount
152	NSR Approved in EEE Project	CI Railing	Providing & fixing of cast iron & ms fabricated decorative ornamental grill , partition, gates, railing, arches, brackets, benches, customised items & crown etc. as per drawings of make Dwarka India / Puja Industries / Gopi Inter cast. instructions and Specifications- 1 - Cast iron material must follow FG-150 grade(as per isi specification) having hardness 135 to 165 BHN. 2 - Colour finishing - all parts must be first sand blasted or shot blasted to expose the metal surface than use epoxy primer for prevent the rust after than use again epoxy top coat for extra metal look in require antique shed with top coating of UV base clear lacquer to protect colour from UV rays i/c. cutting and fixing of members by nut bolts, welding with Co2 / M.I.G, grinding, smmoth finishing, transportation, labour, tools and plants etc. complete as per direction of Engineer-in-charge. 3 - All cast iron parts must have thickness of 22 to 30 mm (as per drawings), assembled with 50x50 ms pipe & 25x25 square bar as required as per design & gate's having sliding arrangements for opening and closing and it must be fitted with crown. & welded with co2/mig welding process & fully grinded for best finish.	KG	2500.00	₹ 175.00	₹ 4,37,500.00
						Total	₹ 1,35,95,538.00
						Grand Total	₹ 35,09,61,304.07

CONDITION NOTE FOR STONE WORK -

- The drawings and images provided are conceptual in nature. The contractor shall prepare and submit detailed structural designs, stone detailing drawings, and shop drawings. All submitted drawings shall be subject to approval by the Engineer-in-Charge and may be verified by a Third-Party Technical Institute. The verification charges of the institute shall be borne separately by the Department.
- Prior to commencement of the work, the contractor shall obtain all necessary approvals for stone designs, artwork, religious motifs, historical story-related carvings, patterns, sculptures, and any other stone design components required for the project. The contractor shall submit the same in the form of drawings, 3D models, 2D drawings, views, mock-ups, etc., for approval by the Authorized Approval Committee and the Engineer-in-Charge.
- The contractor shall be responsible for the operation and maintenance of the stone works (including carvings, cladding, sculptures, and architectural elements) for a period of five (5) years. All operation and maintenance works shall be included, except for items covered under the Defect Liability Period (DLP) as per tender provisions.
- The contractor/sculptor shall submit detailed technical literature and recommended procedures for the cleaning, protection, and maintenance of stone works, carvings, and sculptures.
- All works shall be carried out in accordance with the approved drawings and designs, at any height, including any modifications required in shape and size due to site constraints, statutory requirements, or other reasons.
- If the stone is found to be fake, artificial, substituted, composite, laminated, patched, repaired, or inferior quality, or if the stone is cracked, weathered, defective, or not conforming to the specified type, grade, source, finish, strength, and texture, the stone work shall be rejected. All stone materials shall be subjected to testing for physical properties, strength, durability, water absorption, density, and other relevant parameters in accordance with scientific standards at a Government-approved laboratory and applicable codes/norms.
- The contractor shall submit certificates, test reports if required and approved samples/mock-ups prior to execution. No stone shall be used without approval of the Engineer-in-Charge.

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Conservation of old Temple & Kund

Sr. No.	Intach SOR 2016	Descriptions	Unit	Qty.	Rate	Amount
	A	Kund and Restrotration				
	a	SITE CLEARANCE				
1	2.1	Clearance of debris around the heritage building by excavation upto depth 1.50mtr to 2.00 mtr carefully without damaging the buried architectural parts of the building and collect all the intact parts at proper place for reuse at the time of restoration work as per direction of Engineer incharge.	Cum	1250.00	₹ 433.31	₹ 5,41,642.50
2	12.3	Raking out the joints of country/Nankshahi brick, scooping out dead and decayed mortar very slowly and carfully with scooping rods, then washing complete with hand spray pump. Preparing the surface for replastering including disposal of rubbish with 250m lead	Sqm	550.00	₹ 116.87	₹ 64,275.75
	b	SURFACE CLEANING AND BONDING				
3.00	2.5	Manually removal of vegetation (major trees, climbing plants, creepers) from walls, columns, arches, floor etc in a skilled and careful manner, using appropriate tools and means and without causing any damage to the adjoining parts, including carrying and stacking the dismantled materials including lift/lower upto 11mtrs and lead upto 50 mtrs as directed by the engineer or architect in charge. The exposed surfaces will be coated with a paste made from ammonium sulphamate crystals or with "Tree killer" available in market. In this condition the root system may be left to absorb and die. Large sections of dead wood must not be left within the core. As they decay they will remove support and create voids and weaknesses in the wall. Pull off a well-established mat of vegetation must be resisted. Tamping, grouting, pointing and resetting of brick / stones especially on wall top, must all be anticipated as remedial work.	Sqm	540.00	₹ 971.24	₹ 5,24,466.90
4	2.1	Removing of old sulphated lime wash/white or colour wash in multiple applications without causing damage to the below stone/brick/plastered surface. Scrubbing (not by scraping which leaves surfaces scarred and scratched) with bristle brushes and hot water (Care to be taken if the surface is weak one it will break down). Hot water should be used if the limewash has an oil or tallow binder. Gentle cleaning with air abrasive tools can be used if the wall surface is not very week.The final clean will almost invariably have to be carried out by hand scrubbing and rinsed with clean water on completion. The work should be done under supervision of a trained conservator.	Sqm	125.00	₹ 420.01	₹ 52,501.50

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Conservation of old Temple & Kund

Sr. No.	Intach SOR 2016	Descriptions	Unit	Qty.	Rate	Amount
5	2.2	Removal of rust, existing coatings, mill scale, dirt, oil, grease, and other contaminants from steel sections/stone surface using Micro sand with the help of pressure pump.	Sqm	2250.00	₹ 278.94	₹ 6,27,608.25
6	2.3	Removal of stains, dirt, blackening and other contaminants from Marble by using the solution of Non Ionic soap diluted with water . The soap solution should be mild and the recommended PH Value is 7	Sqm	1800.00	₹ 130.10	₹ 2,34,187.20
7	2.9	Cleaning of Araish work without wall/border painting				
		Cleaning smog, black soot, etc with help of Di-ionized soap or suitable solvent	Sqm	95.00	₹ 304.75	₹ 28,951.16
8	3.0	Construct two tanks at ground level. One for slaking of lime and other for storage of slaked lime. Slake the lime in the tank mixing it with water. Water should be sufficiently more and above the lime. Mix and stir with wooden solid pole for three days under the supervision of conservation Architect. Sieve the sand passing through 4.75mm sieve set. Take one part of slaked lime in a container and 3 parts of sieved sand in the same size container Place these materials in a lime mortar miller Grind the mix for a 12 to 15 minutes Remove the mix from the miller and stack it in a storage tank for maturity period of 4 to 5 days.				
		A good aggregate for a Lime Mortar should be with angular grains and free of contaminants such as salt and organic matter. The aggregates should be well graded sand typically has grain sizes between 4mm and 0.125mm, with the largest proportion of grains at the mid-point sieve fractions.				
	3.5	Lime Mortar 1:2 (1 Slaked lime: 2 Coarse Sand)	Cum	60.00	₹ 5,693.52	₹ 3,41,611.02
9	5.1	Traditional brick masonry in nanakshahi or lakhori bricks in lime mortar in proportion similar to the existing traditional lime mortar 1:1:1 (lime :1 surkhi: 1 finesand)	Cum	25.00	₹ 21,116.30	₹ 5,27,907.38
10	6.6	Stone work in plain ashlar masonry in superstructure in lime mortar 1:1:1 (1 lime:1 surkhi:1 coarse sand) including pointing with lime mortar and an admixture of pigment matching the stoneshade.				
	6.6.2	Both face dressed				
	6.6.2.1	Red sand stone	Cum	200.00	₹ 87,383.05	₹ 1,74,76,610.40

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Sr. No.	Intach SOR 2016	Descriptions	Unit	Qty.	Rate	Amount
11	MP Archaeology, Archives and Museums SOR 15.1	Erecting double scaffolding system (cup lock type) on the exterior side of building/structure, up to 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube challis, 15.1 M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning 15.2 and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc wherever required, with essential safety features for the workmen/officials etc, complete as per directions and approval of Engineer-incharge.	Sqm	1500.00	₹ 146.00	₹ 2,19,000.00
		Note:- (1) The elevational area of the scaffolding shall be measured for amentur use .				
		..(2) The payment will be made once only for execution of all items for such works.				
12	8.7	Providing and Making Gola (batta) in lime concrete using 50% lime surkhi / sand mortar 1:2 with 12mm brick aggregate, along joints of wall and terrace finished with lime surkhi mortar 1:2 plaster with gur, gugal, methi etc as per traditional practice in concave /approved shape of (size 75mmx75mm)	Sqm	50.00	₹ 231.78	₹ 11,588.85
13	8.8	Making khurras 45 x 45 cm with average minimum thickness of 10 cm lime concrete 1:3:6 (1 Slaked lime :3 surkhi : 6 coarse sand) with graded stone aggregate 20mm nominal size over PVC sheet 1m x 1m x 400 micron, finished with 12mm lime plaster 1:3 (1 Slaked lime : 3 Coarse sand), rounding the edges and making and finishing the outlet complete.	Each	4.00	₹ 352.73	₹ 1,410.91
14	9.2	Lime plaster 1:1:1 (1 lime putty : 1 surkhi: 1 finesand)				
	9.2.1	20mm thick in two coarses. First coat will be in 12mm and second coat will be in 8 mm.	Sqm	95.00	₹ 1,303.07	₹ 1,23,792.03
15	9.9	Making cornice band with ornamental design as per the conservation Architect's design with lime plaster (1lime:3 finesand)				
	9.9.1	Size 150mm wide and 50mm average thick	M	150.00	₹ 680.91	₹ 1,02,136.95

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Sr. No.	Intach SOR 2016	Descriptions	Unit	Qty.	Rate	Amount
16	10.1	Stone work (Machine cut edges) for wall lining (Veneer work) upto 10m height, backing filled with a grout of average 12 mm thick lime mortar 1:2 (1 lime : 2 coarse sand) including pointing in lime mortar 1:2 (1 lime : 2 stone dust) with an admixture of pigment matching the stone shade : (To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately) :				
	10.1.5	30mm Thk	Sqm	75.00	₹ 2,155.46	₹ 1,61,659.13
17	10.6	Marble work gang saw cut (polished and machine cut) of thickness 18 mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3(1 cement : 3 coarse 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).	Sqm	80.00	₹ 2,750.36	₹ 2,20,028.40
18	10.7	Marble work gang saw cut (polished and machine cut) of thickness 18 mm for cladding over dome (veneer work), backing filled with a grout of average 20 mm thick in lime mortar 1:3 (1 lime : 3 coarse sand), including pointing with lime mortar 1:2 (1 lime : 2 arble 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).	Sqm	80.00	₹ 3,300.69	₹ 2,64,054.96
19	10.8	Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in lime mortar 1:2 (1lime : 2 coarse sand), including making the necessary chases in stone and holes in walls wherever required	Kg	1500.00	₹ 612.14	₹ 9,18,216.00
20	11.1	Repairing of .5mm to 5 mm wide open joints / cracks in all types of sand stone masonry work including scrapping of loose jointing material from cracks. The inner side to be filled/pointed with polymer mixed lime mortar with wooden trowel and fixing grouting nipple from outer side as directed by Architect. Then apply polymer based lime mortar by injection grouting through 5mm diameter nozzle through the pre fix nipple up to total thickness of existing stone wall and removing the PVC nipple pipe, lime moratr of mix lime & sand 1:1 mix with polymer using katha or other additives to achieve require matching colour and including cost of all materials, labour, machinery, equipment, curing and cleaning the site as directed.	M	100.00	₹ 64.99	₹ 6,498.90

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Conservation of old Temple & Kund

Sr. No.	Intach SOR 2016	Descriptions	Unit	Qty.	Rate	Amount
21	14.1.3	Starting at low point from the roof, unroll the APP membrane 3mm (Non Woven Polyester of 160 gsm) (50 kgs)(1 Mtr X 10 Mtr) roll once the priming coat is dried. Align the roll correctly and RE- roll it half in alignment before torching. Avoid shifting of the membrane while torching. Use gas burner to heat substrate and underside to softening points. When the embossing disappears, roll forward and press firmly against substrate to bond from the Lower end toward and press firmly against substrate to bond from the lower end towards the higher end. Ensure sufficient bleed on side and end over laps. Once the half of the roll is torched properly to the substrate, unroll the balance roll and repeat the process.	Sqm	80.00	₹ 383.34	₹ 30,666.96
22	MP PHE SOR 2023 29.32	Cleaning of Silt, sludge brick bats, polythene bags, garbage etc. from choked sewer manholes / sewer drains & Nallahs/ wet well of SPH/ Anaerobic & Facultative Pond of STP with all required T&P such as bucket, manila rope, and all required safety equipment such as safety belt, gas mask, oxygen cylinder etc. including disposal of silt/ sludge upto 50 mtr lead & 1.5 mtr. lift as directed by Engineer-in-Charge including dewatering but excluding dat (plugging of sewer pipe line)				
	MP PHE SOR 2023 29.32.1	Depth up to 1.5 mtr	Cum	1575.00	₹ 550.00	₹ 8,66,250.00
	MP PHE SOR 2023 29.32.2	Extra rate for depth 1.5 m to 3m or part	Cum	787.50	₹ 30.00	₹ 23,625.00
	MP PHE SOR 2023 29.32.3	Extra rate for depth 3m to 4.5 m or part	Cum	787.50	₹ 59.00	₹ 46,462.50
				Grand Total		₹ 2,34,15,152.64

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STP Plant						
Sr. No.	MP PWD SOR 2024	Descriptions	Unit	Qty.	Rate	Amount
1	30.1.1 STP MBBR Conventional Technology	Conventional MBBR STP Technology Primary Treatment – -Manual Bar Screen -Oil, Grease Trap and Grit Removal System Secondary Treatment – -Raw Sewage Transfer Pump (01set) - Air Blower (01set) and Diffuser System - Media -Tube Media/Lamella -Chlorine Dosing system with Chlorine Dosing Pump(01set) -Sump Pump (01set) -Plant/Interconnecting Piping And Valves -Manual/PLC Based Electrical Control Panel -Incoming/Outgoing Feeder -Cable Laying With Cable Tray -Earthing Systems				
		Pressure Gauges -Level Switches -Online Rota meter -Air Rota meter -Flow Meter -Filter Feed Pump (01set) -Multi Grade Sand Filter -Activated Carbon Filter -Micro Filtration system Sludge Handling System – -Sludge Recycling Pump (01set) -Sludge Feed Screw Pumps (01set) -Filter Press System				
	30.1.1.8	500 KLD	Each	1.00	₹ 61,52,390.00	₹ 61,52,390.00
				Total	Total	₹ 61,52,390.00

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Solar Plant						
Sr. No.	MP PWD 2024 E&M	Descriptions	Unit	Qty.	Rate	Amount
	a	Solar Plant				
1	55.7	Supply, Installation, Testing and Commissioning of on 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, Supply, Installation, Testing and Commissioning of on 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:- 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	KWP	100.00	₹ 74,750.00	₹ 74,75,000.00
				Total		₹ 74,75,000.00

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
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	150	451.00	67650
	4.1.1.2	Primary medium point	Each	350	830.00	290500
	4.1.1.3	Primary long point	Each	250	1300.00	325000
	4.1.2	(Light point/fan points) looping point				
	4.1.2.1	Secondary short point	Each	240	226.00	54240
	4.1.2.2	Secondary medium point	Each	250	415.00	103750
	4.1.2.3	Secondary long point	Each	220	650.00	143000
	4.1.3	3 Pin 6 Amp socket outlet on separate board				
	4.1.3.1	Short point	Each	80	574.00	45920
	4.1.3.2	Medium point	Each	120	990.00	118800
	4.1.3.3	Long point	Each	60	1515.00	90900
	4.1.4	Call bell/buzzer points				
	4.1.4.1	Short point	Each	20	455.00	9100
	4.1.4.2	Medium point	Each	20	797.00	15940
	4.1.4.3	Long point	Each	30	1183.00	35490
	4.1.5	Twin control light points				
	4.1.5.1	Short point	Each	15	531.00	7965
	4.1.5.2	Medium point	Each	25	948.00	23700
	4.1.5.3	Long point	Each	40	1453.00	58120
4.2	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	150	265.00	39750
4.3	4.3	Wiring for circuit wiring with PVC insulated cable FRLS with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) of ISI marked suitable size etc. as required as per specification				
	4.3.1	2x2.5 Sq.mm.	Metre	1500	139.00	208500
	4.3.2	4x2.5 Sq.mm.	Metre	3500	224.00	784000
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	40	985.00	39400
	9.1.1.2	Medium point	Each	45	1749.00	78705
	9.1.1.3	Long point	Each	35	2612.00	91420
	9.1.1.4	Extra long-I	Each	50	3648.00	182400
	9.1.1.5	Extra long-II	Each	80	4771.00	381680
	9.1.1.6	Extra long-III	Each	50	5986.00	299300
9.2		Same board switch & socket 16 Amp./S.S. combined 20/16/6 Amp	Each	35	437.00	15295
15.1		Supplying and fixing PVC conduit as required confirming to IS 9537 (Part-3), ISI marked along with accessories on surface etc. as required.				
	15.1.2	PVC conduit 25 mm. (MMS)	Metre	3500	67.00	234500
	15.1.3	PVC conduit 32 mm. (MMS)	Metre	1000	102.00	102000
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.				
	16.1.2	PVC. conduit 25 mm (HMS)	Metre	1500	74.00	111000
	16.1.3	PVC. conduit 32 mm (HMS)	Metre	1000	115.00	115000
17.1		Supplying and fixing PVC casing and capping (double fold) ISI marked along with accessories on surface etc. as required				
	17.1.2	PVC casing and capping (double fold) 25 mm x 12mm	Metre	1500	34.00	51000
	17.1.3	PVC casing and capping (double fold) 32 mm x 12mm	Metre	1000	39.00	39000

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
	17.1.5	PVC casing and capping (double fold) 50 mm x 16mm	Metre	500	75.00	37500
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	26	182.00	4732
	18.2.2	3 Module metal box	Each	38	216.00	8208
	18.2.3	4 Module metal box	Each	34	244.00	8296
	18.2.4	6 Module metal box	Each	28	309.00	8652
	18.2.5	8/9 Module metal box	Each	40	373.00	14920
	18.2.6	12 Module metal box	Each	35	502.00	17570
	18.2.7	16 Module metal box	Each	45	585.00	26325
	18.2.8	18 Module metal box	Each	35	642.00	22470
19.1		Supplying and drawing single core PVC insulated cable FRLS with copper multi strand conductor ISI marked in existing rigid PVC casing and capping/conduit in surface or concealed as per specification.				
	19.1.1	1.5 sq. mm. wire				
	19.1.1.4	4 X 1.5 sq. mm.	Metre	1500	75.00	112500
	19.1.2	2.5 sq. mm. wire				
	19.1.2.3	3 X 2.5 sq. mm.	Metre	1500	90.00	135000
	19.1.2.4	4 X 2.5 sq. mm.	Metre	2500	120.00	300000
	19.1.3	4.00 sq. mm. wire				
	19.1.3.4	4 X 4.00 sq. mm.	Metre	2500	180.00	450000
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)				
	23.1.4	4 Wire sub main				
	23.1.4.2	4.0 sq. mm. cable	Metre	1500	295.00	442500
	23.1.4.3	6.0 sq. mm. cable	Metre	2000	398.00	796000
25.6		Supply of ISI Marked Automatic Transfer Switches (ATS) confirming to IEC : 60947-1 & IEC : 60947-6-1 with automatic inbuilt time delay 4 pole, 415 V with two earthing terminals if required.				
	25.6.11	400 Amp (with enclosure)	Each	1	83820.00	83820
25.12		Supply of ISI Marked Direct On-Line Starters confirming to IS : 13947-4 with suitable over load relay range and contactor size, 415 V , 3 -Phase with two earthing terminals				
	25.12.1	0.75 / 1.0 / 2.0 / 3.0 / 5.0 / 7.5 HP	Each	1	1740.00	1740
	25.12.2	10 HP	Each	1	2607.00	2607
25.13		Supply of ISI Marked Automatic Star-Delta Starters confirming to IS : 13947-4 with suitable over load relay range and contactor size & timer 415 V , 3 -Phase with two earthing terminals				
	25.13.1	3 to 12.5 HP	Each	1	8150.00	8150
	25.13.2	15.0 HP	Each	1	8009.00	8009
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	10	9781.00	97810
	27.3.2	MCCB 25kA current rating - 125Amp & adjustable overload setting 80% -100% of In, adjustable short circuit setting 6-10 In 4 Pole	Each	10	11593.00	115930

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
	27.3.5	MCCB 36kA current rating - 160 Amp & adjustable overload setting 80% -100% of In, adjustable short circuit setting 6-10 In 4 Pole	Each	6	18923.00	113538
	27.3.6	MCCB 36kA current rating - 200Amp & adjustable overload setting 80% -100% of In, adjustable short circuit setting 6-10 In 4 Pole	Each	4	21950.00	87800
	27.3.7	MCCB 36kA current rating - 250Amp & adjustable overload setting 80% -100% of In, adjustable short circuit setting 6-10 In 4 Pole	Each	4	27693.00	110772
	27.3.8	MCCB 36kA current rating - 315Amp & adjustable overload setting 80% -100% of In, adjustable short circuit setting 6-10 In 4 Pole	Each	4	30528.00	122112
	27.3.9	MCCB 36kA current rating - 400Amp & adjustable overload setting 80% -100% of In, adjustable short circuit setting 6-10 In 4 Pole	Each	4	31907.00	127628
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				
	27.5.8	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	1	70459.00	70459
	27.5.9	MCCB 50kA current rating - 800 Amps 4 Pole & Micro-Processor Release, over load 40% -100% x In. & short circuit 1.5 - 8 x Ir. Adjustable.	Each	1	90200.00	90200
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	120	439.00	52680
	27.8.1.2	MCB SP 6Amp to 32Amp 10kA rating	Each	350	263.00	92050
	27.8.1.3	MCB SP For 40Amp 10kA rating	Each	60	611.00	36660
	27.8.2	Double pole				
	27.8.2.2	MCB DP 6Amp to 32Amp 10kA rating	Each	10	887.00	8870
	27.8.2.4	MCB DP 50Amp to 63Amp 10kA rating	Each	10	1478.00	14780
	27.8.4	Four pole				
	27.8.4.2	MCB FP 6Amp to 32Amp 10kA rating	Each	45	1965.00	88425
	27.8.4.3	MCB FP For 40Amp 10kA rating	Each	35	2714.00	94990
	27.8.4.4	MCB FP 50Amp to 63 Amp 10kA rating	Each	35	2795.00	97825
	27.8.4.5	MCB FP 80Amp 15kA rating	Each	40	10806.00	432240
	27.8.4.6	MCB FP 100Amp 15kA rating	Each	25	11264.00	281600
	27.8.4.7	MCB FP 125Amp 15kA rating	Each	25	12724.00	318100
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)-				
	27.11.2	4 Way single door	Each	15	1097.00	16455
	27.11.4	6 Way double door IP 43 protection	Each	20	1846.00	36920
	27.11.5	8 Way double door IP 43 protection	Each	20	2127.00	42540
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):				
	27.12.4	8 Way (8+24)	Each	20	6716.00	134320

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Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
	27.12.5	12 Way (8+36)	Each	15	9519.00	142785
27.13		Supplying of approved make vertical TPN MCB DB metal double door IP 43 protection with provision for FP MCB/Isolator/RCCB/RCBO as incomer and SP/TP MCBs as outgoing inclusive of busbar, neutral bar, earth bar, & two earth terminals etc. complete as per IS:13032(exclusive of MCB & isolator)				
	27.13.3	8 Way (8+24)	Each	8	17263.00	138104
	27.13.4	12 Way (8+36)	Each	4	23179.00	92716
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.				
	27.21.2	FP (8module)				
	27.21.2.6	4 pole 25-32Amp, 100/300mA sensitivity	Each	10	6476.00	64760
	27.21.2.7	4 pole 40Amp, 100/300mA sensitivity	Each	10	7180.00	71800
	27.21.2.8	4 pole 63Amp, 100/300mA sensitivity	Each	10	7926.00	79260
28.4		Fixing of MCB/MCCB/Isolator in sheet steel enclosure as required as per accepted practice, including mounting on busbar and cable connection etc. complete (labour only)				
	28.4.1	MCB/Isolator SP/DP	Each	750	22.00	16500
	28.4.2	MCB/MCCB Isolator TP/TPN/FP	Each	450	28.00	12600
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	250	517.00	129250
	28.5.2	27.11.5 & 27.12.1 to 27.12.2	Each	200	545.00	109000
	28.5.3	27.12.3 to 27.12.4 & 27.13.1	Each	150	572.00	85800
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	80	414.00	33120
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	50	268.00	13400
	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	50	297.00	14850
	28.8.3	27.16.1 & 27.16.2 ; 27.16.5 & 27.16.6	Each	50	2788.00	139400
	28.8.4	27.16.3 & 27.16.4 ; 27.16.7 to 27.16.9, 27.16.12, 27.16.13	Each	45	3527.00	158715
	28.8.5	27.16.10 to 27.16.11	Each	40	3532.00	141280
29.3		Supply and fixing as per specification call bell/buzzer of approved make with necessary materials complete.				
	29.3.4	Multi sound bell	Each	5	205.00	1025
	29.3.5	Remote/cordless bell	Each	10	969.00	9690
29.15		Supply and fixing as per specification caution/danger board of approved make with necessary material complete.				

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
	29	Small size 200 X 150 mm for MV/LT	Each	50	97.00	4850
	29	Large size 250 X 200 mm for	Each	60	155.00	9300
29.25		Supply and fixing of approved make step type modular electronic fan regulator including connection etc. as required on existing board				0
	29	100 Watt(2 module)	Each	160	484.00	77440
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	2500	397.00	992500
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	Digital Ampere Metre with CTs with selector switch	P.SET	10	2125.00	21250
	29	Digital Volt Metre with selector switch & HRC fuse	P.SET	10	2398.00	23980
	29	Frequency Metre	Each	10	1435.00	14350
	29	Multifunction Meter	Each	10	2587.00	25870
	29	Copper bus bar strips with PVC sleeves	Kg	100	788.00	78800
	29	Aluminium bus bar strips with PVC sleeves	Kg	350	284.00	99400
	29	LED lamp indicator	Each	40	255.00	10200
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	Upto 3 kVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	1431.00	7155
	29	For 5 kVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	1495.00	7475
	29	For 8.5 kVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	1596.00	7980
	29	For 10 kVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	1721.00	8605
	29	For 12.5 kVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	1831.00	9155
	29	For 15 kVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	2512.00	12560
	29	For 20 kVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	2948.00	14740
	29	For 25 KVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	3261.00	16305
	29	For 30 kVAR 440V,3Ph,50Hz, Aux contact-1NO	Each	5	4353.00	21765

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
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	8 Step APFC relay (144 x144mm)	Each	3	13351.00	40053
	29	Automatic power factor relay 12 Steps 230V 144 x 144mm	Each	3	17505.00	52515
29.31		Supplying and fixing of CT 1A/5A as per site selectable busbar dimension of approved make in existing main panel for power factor Panel including connections etc. as required as per specification.	Each	3	1664.00	4992
29.32		Supplying and fixing of analog time switch for automatic ON - OFF street light of approved make in existing LT panel including connections etc. as required as per specification	Each	3	2689.00	8067
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	5	1898.00	9490
	30.1.2	Ceiling Fan (ISI marked)-1200 mm Sweep, with minimum air delivery 210 m ³ /min and service value ≥ 4.00 as per BEE..	Each	160	2292.00	366720
30.2		Supplying, erection and testing of approved make wall mounting fan oscillating type with base, blades, guard, speed regulator etc. AC 230-250 volts with connections and including raw bolt/anchor hole fastener etc. complete finished and as required.				
	30.2.1	300 mm sweep	Each	10	2478.00	24780
	30.2.2	400 mm sweep	Each	5	2810.00	14050
30.3		Supplying, erection and testing of approved make cabin fan oscillating type with base, blades, guard, speed regulator etc. AC 230-250 volts with connections and including raw bolt/anchor hole fastener etc. complete finished and as required.				
	30.3.1	300 mm sweep	Each	10	2479.00	24790
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	30	2571.00	77130
	30.6.3	450mm sweep RPM 900 / 1400	Each	10	4259.00	42590
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	160	114.00	18240
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.				

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
	31.3.4	Tube light LED 1 X 20/22Watt, Integral i/c batten aluminium body, PC diffuser.	Each	40	782.00	31280
31.4		Supply and fixing of recessed mounting type Led light fixture, 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>100 lm/Watt. LED driver PF> 0.95, THD < 20% & surge protection 4KV. The colour rendering index of LED light should be more than 70. Housing made of CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347i/c connection wire, testing etc. to complete the job.				
	31.4.1	LED luminaire 2' X 2', 36Watt, color temp 3000-6500k as required.	Each	60	3103.00	186180
	31.4.2	LED luminaire 2' X 2', 42/45Watt, color temp 3000-6500k as required.	Each	40	4215.00	168600
31.5		Supply and fixing of surface mounting type LED light fixture, 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>100 lm/Watt. LED driver, PF> 0.95, THD < 20% & surge protection 4KV. The colour rendering index of LED light should be more than 70. Housing made of CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347i/c connection wire, testing etc. to complete the job.				
	31.5.1	LED luminaire 2' X 2', 36Watt, color temp 3000-6500k as required.	Each	50	4384.00	219200
	31.5.2	LED luminaire 2' X 2', 42/45Watt, color temp 3000-6500k as required.	Each	40	4472.00	178880
31.6		Supply and fixing recessed mounting LED down lighter, 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>100 lm/Watt. LED driver PF > 0.95, THD < 20% & surge protection 4KV. The colour rendering index of LED light should be more than 70. Housing made of pressure die cast aluminium/CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347i/c connection wire, testing etc. to complete the job..				
	31.6.5	14/15 Watt, color temp 3000-6500k as required.	Each	60	1150.00	69000
	31.6.7	22/24Watt, color temp 3000-6500k as required.	Each	80	2377.00	190160
31.7		Supply and fixing surface mounting LED down lighter, LED of 1 to 3Watt 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>100 lm/Watt. LED driver PF > 0.95, THD < 20% & surge protection 4KV. The colour rendering index of LED light should be more than 70. Housing made of pressure die cast aluminium/CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347i/c connection wire, testing etc. to complete the job..				
	31.7.4	14/15 Watt, color temp 3000-6500k as required.	Each	60	1400.00	84000
	31.7.6	21/22/24Watt, color temp 3000-6500k as required.	Each	40	2809.00	112360

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
31.8		Supply and fixing of recessed mounting LED swivel type COB downlighter, having color temp upto 6500K & having 20000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF > 0.9, THD < 20% & surge protection 5KV. The colour rendering index of LED light should be more than 70. Housing made of pressure die cast aluminium / CRCA powder coated frame with glare free diffused polycarbonate cover. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c connection wire, testing etc. to complete the job. Guarantee as per tender agreement condition.				
	31.8.4	12/15W	Each	80	2022.00	161760
	31.8.6	22/24W	Each	40	3758.00	150320
31.17		Supplying, fixing & testing of approved make flexible LED strip comprising of 60 LED per meter W/O driver for direct mounting complete with all accessories including connection lead, fixing, connection as required. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347i/c connection wire, testing etc. to complete the job.				
	31.17.2	Flexible LED strip 72Watt/75Watt - 5 M indoor light W/O driver IP 20 - 33	Each	250	1859.00	464750
	31.17.4	Flexible LED strip 72Watt/75Watt - 5 M outdoor light W/O driver IP65	Each	500	2805.00	1402500
31.18		Supplying, fixing & testing of approved make Power supply for LED strip				
	31.18.6	Power supply 72Watt/75Watt for LED strip IP65	Each	250	3905.00	976250
31.20	31.20	Supply, fixing and testing of approved make integral step/skirt LED light suitable for 3 module box and plate including fixing on wall as required, with necessary material to complete the job. Guarantee as per tender agreement condition.	Each	60	676.00	40560
31.9	31.9	Supply and fixing of Linear profile suspended LED luminaire, having color temp upto 6500K & having 20000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF > 0.9, THD < 20% & surge protection 5KV. The colour rendering index of LED light should be more than 80. Housing made of pressure die cast aluminium / CRCA powder coated frame with high transmission diffuser. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c mounting arrangement, connection wire, testing etc. to complete the job. Guarantee as per tender agreement condition.				
	31.9.1	32/40W	Each	60	8712.00	522720
31.10		Supply and fixing of Linear profile suspended LED luminaire, having color temp upto 6500K & having 20000 burning hrs life with minimum @ L 70, system lumen output should be minimum with efficacy>80lm/W. LED driver PF > 0.9, THD < 20% & surge protection 5KV. The colour rendering index of LED light should be more than 80. Housing made of pressure die cast aluminium / CRCA powder coated frame with high transmission diffuser. Submission LM 80-08 Form LED Source Manufacturer & LM79-08 / IS16106 from NABL approved lab. Manufacturer mandatory. i/c mounting arrangement, connection wire, testing etc. to complete the job. Guarantee as per tender agreement condition.				

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
	31.10.1	32/40W	Each	40	7478.00	299120
35.1	35.1	Dismantling of existing light/fan/ bell/socket out let point on separate board/wiring and circuit with insulated wire in casing/conduit/ batten complete with fitting and accessories	Per point	200	16.00	3200
35.2	35.2	Making the site clear of the dismantled installation by refilling the hole with cement mortar & finished with paint gitties and replacing to match the colour& wall ceiling.	Per point	150	27.00	4050
35.3	35.3	Dismantling of existing socket outlet point on same board in any system of wiring	Per point	200	8.00	1600
35.4	35.4	Dismantling the existing armoured/unarmoured cable or 2/3/4 wires of submain, main, in any system of wiring including recoiling.	Metre	200	8.00	1600
35.5	35.5	Dismantling of existing underground cable safely with its accessories and refilling the trench to ground level including recoiling of dismantled cable.	Metre	1000	29.00	29000
35.6	35.6	Dismantling of D.F. board, D.P. switch, T.P. & T.P.N. switch or D.B. of any size complete with board or angle/flat iron frame and making site clear including the refilling hole & repainting to match colour of wall.	Each	200	30.00	6000
35.7	35.7	Dismantling of D.F. board, D.P. switch, T.P. & T.P.N. switch or D.B. of any size only	Each	200	10.00	2000
35.8	35.8	Dismantling the existing ceiling/exhaust/cabin fan with complete accessories and making the site clear.	Each	150	37.00	5550
37.1	37.1	Earthing with G.I. earth pipe 4.5 metre long and 40 mm dia with masonry encloser in cement mortar, cover plate having locking arrangement on the top etc. (but without charcoal or coke and salt) complete as required	Each	25	3312.00	82800
37.2	37.2	Add extra for using salt and charcoal/coke for pipe earth electrode as required including excavation & refilling				
	37.2.1	Excavation 4.5 m by manual labour	Each	15	1942.00	29130
	37.2.2	Excavation by making hole with auger	Each	15	1622.00	24330
37.3	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	25	7487.00	187175
37.4	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	5	16341.00	81705
37.5	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	50	1655.00	82750
	37.5.1	Add extra for using salt and charcoal/coke for G.I. plate or copper plate earth electrode as required including excavation in hard rock and refilling the pit with black soil.	Each	45	2783.00	125235
37.6	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	3000	21.00	63000
37.7	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	800	114.00	91200
37.8	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	500	25.00	12500

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Internal Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Qty.	Rate (in Rs.)	Amount
37.10	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	1500	147.00	220500
37.11	37.11	Providing and fixing 25mm X 5mm copper strip in 40 mm dia G.I. Pipe from earth electrode as required	Metre	200	1490.00	298000
37.21	37.21	Lightning conductor				
	37.21.1	Providing and fixing of lightning conductor finial made of 18mm dia 500mm long bright nickel plated copper tube tapered having single prong at top with bright nickel plated brass base M10 for connection and intersection of flat or round conductor including holes, clamp complete as required.	Each	5	3947.00	19735
37.24	37.24	Riveting/sweating and soldering of copper/G.I. Tape (with another copper/G.I. Tape, base of finial or any other metallic object) as required	Each	5	107.00	535
37.25	37.25	Providing and fixing copper tape 20mm X 3mm thick on parapet and surface of wall of lightning conductor as required (for horizontal runs)	Metre	500	567.00	283500
37.29	37.29	Fixing of copper/G.I. tape 20mm X 3mm thick on parapet and surface of wall for lightning conductor as required (for horizontal runs)	Metre	500	23.00	11500
37.30	37.30	Fixing of copper/G.I. tape 20mm X 3mm thick on parapet and surface of wall for lightning conductor as required (for vertical runs)	Metre	500	27.00	13500
37.31	37.31	Providing and fixing "Testing Joint" made by 20mm X 3mm thick copper strip 125mm long with 4 Nos of tinned Brass bolts, Nut, check nuts and spring washers etc. complete as required.	Each	50	525.00	26250
37.42	37.42	Supply and installation of polycarbonate heavy duty pit cover tested for 5000Kg SWL for earth electrode at ground level size 300x300x155 mm with lockable lid.	Each	30	1501.00	45030
38.1	38.1	Supplying and drawing co-axial T.V. cable RG-6 Grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tined copper braid and protected with PVC sheathed in existing surface/concealed, steel/PVC conduit as required.	Metre	500	30.00	15000
38.2	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.				
	38.2.3	Telephone wire 0.5 mm, 4 Pair	Metre	500	48.00	24000
	38.2.4	Telephone wire 0.5 mm, 10 Pair	Metre	1200	97.00	116400
41.24	41.24	Supply and erection of hot dip G.I. cable tray perforation not more than 17.5% for specific dimensions along with tees, bends. The cable tray shall be hang from ceiling/ fixed to wall with necessary angle/flat iron/hanging rod, for ceiling suspensions, clamp, anchor fastener, nuts, bolts, washers, not more than 1.0 mtr. apart complete as per specification to complete the job. The tray shall be as follows :-				
	41.24.1	100x50x1.6mm thick	Metre	1500	586.00	879000
	41.24.2	150x50x1.6mm thick	Metre	2000	699.00	1398000
	41.24.3	300x50x1.6mm thick	Metre	1500	1027.00	1540500
			Total Amount			23919795

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External Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
39.2	39.2	Supplying & installation of required capacity of three phase, 50 Hz, 415V, deep well submersible pump steel body, as per IS of approved make, suitable upto 6" tube well with control panel starter suitable for submersible pump with dry run protection, single phase preventer, connections, including clamp, bore cap etc. as required as per specifications but excluding pipe and connection cable.				
	39.2.8	5 HP with 8-11 stages, head metre 101-32, discharge LPM 60-270	Each	65323.00	1	65323
	39.2.10	7.5 HP with 15 stages, head metre 138-60, discharge LPM 60-270	Each	81412.00	1	81412
39.3	39.3	Supplying and laying of submersible flat cable ISI marked 3 core copper wire of suitable size with proper clamping of approved make.				
	39.3.2	4.0 sq.mm multi strand	Metre	205.00	1000	205000
	39.3.3	6.0 sq.mm multi strand	Metre	308.00	500	154000
41.1	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				
	41.1.8.1	25 sq. mm	Metre	231.00	525	121275
	41.1.8.2	35 sq. mm	Metre	280.00	250	70000
	41.1.8.3	50 sq. mm	Metre	373.00	200	74600
	41.1.8.4	70 sq. mm	Metre	500.00	550	275000
	41.1.8.6	120 sq. mm.	Metre	780.00	350	273000
	41.1.8.7	150 sq. mm.	Metre	904.00	900	813600
	41.1.8.10	300 sq. mm.	Metre	1792.00	900	1612800
	41.1.10	4 core armoured				
	41.1.10.1	6 sq. mm.	Metre	151.00	870	131370
	41.1.10.2	10 sq. mm.	Metre	181.00	1200	217200
	41.1.10.3	16 sq. mm.	Metre	218.00	800	174400
41.3		Supply of approved high-tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core armoured with alu. solid/stranded conductor ISI marked as required				
	41.3.1	3 core XLPE cable 11 Kv grade				
	41.3.1.8	300 sq. mm.	Metre	2470.00	800	1976000
41.5		Brass compression gland				
	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	50	3950
	41.5.1.3	Gland size 28mm for 3/4 x 16 sq. mm	Each	138.00	40	5520
	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	40	6320
	41.5.1.5	Gland size 38 mm 3½ x 70 sq. mm, 3x95 sq. mm	Each	219.00	35	7665
	41.5.1.7	Gland size 50 mm, 3½ x 150 sq. mm, 3 x 185 sq. mm	Each	290.00	40	11600
	41.5.1.8	Gland size 57 mm, 3 x 225 sq. mm, 3 ½ x 185 sq. mm	Each	440.00	40	17600
	41.5.1.9	Gland size 70 mm, 3 x 240 sq. mm, 3½ x 300 sq. mm	Each	605.00	40	24200
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	350	1050
	41.6.2	10.00 sq. mm	Each	4.00	250	1000
	41.6.3	16.00 sq. mm	Each	4.00	150	600
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	300	2400
	41.7.2	25 sq. mm	Each	14.00	360	5040
	41.7.3	35 sq. mm	Each	22.00	280	6160
	41.7.4	50 sq. mm	Each	22.00	250	5500
	41.7.5	70 sq. mm	Each	35.00	150	5250
	41.7.7	120 sq. mm.	Each	58.00	354	20532
	41.7.8	150 sq. mm.	Each	66.00	150	9900
	41.7.11	300 sq. mm.	Each	138.00	150	20700
41.8		Supplying & fixing pin terminal lugs as per ISS specification suitable for cable evenly crimped with high pressure tool & connection to switch gear terminal as required complete.				
	41.8.1	Aluminum lugs pin type				
	41.8.1.1	Upto 16 sq. mm conductor size	Each	19.00	150	2850
	41.8.1.2	Upto 25 sq. mm conductor size	Each	22.00	150	3300
	41.8.1.3	35 sq. mm conductor size	Each	26.00	120	3120
41.10		Providing & Making cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 33 KV/11 KV 3 core XLPE alum. conductor cable as required as per specification and as per accepted standard including connection testing complete.				
	41.10.1	Heat shrinkable joint, kit 11 KV XLPE, 3 core				
	41.10.1.1	Heat shrinkable Jointing kit 11 KV XLPE cable O.D. termination				
	41.10.1.1.4	3 x 240-400 sq. mm.	Each	11389.00	4	45556
	41.10.1.2	Heat shrinkable jointing kit 11 KV XLPE cable I.D. termination				
	41.10.1.2.4	3 x 240-400 sq. mm.	Each	9470.00	4	37880
	41.10.1.3	Heat shrinkable jointing kit 11 KV XLPE cable straight joint				
	41.10.1.3.4	3 x 240-300 sq. mm.	Each	23710.00	4	94840

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External Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
41.11		Supply and making cable straight joint/end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 1.1 KV XLPE/HD alum. conductor cable as required as per specification and as per accepted standard including connection testing complete for (L.D./O.D.) termination.				
	41.11.1	Heat shrinkable jointing kit 1.1 KV XLPE/HD cable end termination jointing kit (L.D./O.D.)				
	41.11.1.4	225-300 sq. mm. 1 core	Each	991.00	5	4955
	41.11.2	Heat shrinkable jointing kit 1.1 KV XLPE/HD cable straight through jointing kit (L.D./O.D.)				
	41.11.2.4	225-300 sq. mm. 1 core	Each	1073.00	5	5365
	41.11.3	Heat shrinkable Jointing kit 1.1 KV XLPE/HD cable L.D./O.D. end termination				
	41.11.3.4	185-300 sq. mm. 3/2/4 core	Each	6329.00	5	31645
	41.11.4	Heat shrinkable jointing kit 1.1 KV XLPE/HD cable straight through jointing kit (L.D./O.D.)				
	41.11.4.5	300-400 sq. mm. 3/2/4core	Each	6496.00	5	32480
41.12		Supplying & installing G.I. pipe for protection of underground cable fixed on wall/support/in trench/fixed between two rigid existing support of wall/beam for erection of ceiling Fan/down rod for stiff pendent for light luminaries /fan/protective for earthing, lightning conductor down strip/overhead service line/for submersible cable or centrifugal pump for water supply with necessary iron clamp coupler, bend, tee, elbow, nuts and bolts etc. complete in an approved manner as required to complete excluding cost of excavation/dismantling & other finished masonry Item complete.				
	41.12.1	For 'B' class pipe ISI marked (IS-1161-68)				
	41.12.1.6	50.00mm	Metre	550.00	500	275000
	41.12.1.9	100.00mm	Metre	1256.00	350	439600
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, excluding excavation, back filling with excavated material, ramming and making the surface good.				
	41.14.1	50.00mm outside dia.	Metre	133.00	5500	731500
	41.14.4	110.00mm outside dia.	Metre	252.00	3500	882000
	41.14.7	210.00mm outside dia.	Metre	532.00	1500	798000
41.15		Cable laying				
	41.15.7	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/ DWC Pipe/ surface in existine trench as required.	Metre	28.00	3395	95060
	41.15.8	Laying of one number armoured / unarmoured power cable 1.1 KV grade of size exceeding 25 sq. mm but not exceeding 120 sq. mm. in the existing RCC Hume /Stone ware/G.I. Pipe/ DWC Pipe/ surface in existing trench as required.	Metre	35.00	1350	47250
	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	1800	97200
	41.15.25	Laying of one number 3 core H.T armoured/unarmoured power cable of grade exceeding 1.1KV but not exceeding 11KV of size not exceeding 300 sq. mm in the existing RCC/hume/stoneware/G.I. pipe/ DWC Pipe/surface in existing trench as required.	Metre	50.00	1000	50000
	41.15.28	Laying of one number 3 core H.T armoured/unarmoured power cable 33KV grade of size not exceeding 300 sq. mm in the existing RCC/hume/stoneware/G.I. pipe/ DWC Pipe/surface in existine trench as required.	Metre	50.00	0	0
41.16		Excavation of the trenches in hard rock not exceeding 1.5 metre in width and lift upto 1.5 metre including getting out the excavated metal and disposal of surplus excavated soil/metal as directed within the lead of 50 metre (without blasting).	Cu. Mtr.	691.00	250	172750
41.21		Laying of cement concrete or approved type of cable cover/flag stone over L.T./H.T. cable & refill trench as per specification.	Metre	16.00	20	320
4.23		Supply & fixing cable route marker round/square size 100mm, 5mm. thick, G.I. Plate duly bolted/welded on 35mm x 35mm x 5mm angle iron 60cm long including excavation, grouting in cement concrete 1:2:4 (1cement and 2 coarse sand: 4 graded stone aggregate 20mm nominal size) foundation of size 20cm x 20cm x 30cm duly embedded in ground 30cm depth or as required.	Each	299.00	30	8970
37.1		Earthing with G.I. earth pipe 4.5 metre long and 40 mm dia with masonry encloser in cement mortar, cover plate having locking arrangement on the top etc. (but without charcoal or coke and salt) complete as required	Each	3312.00	20	66240
37.2		Add extra for using salt and charcoal/coke for pipe earth electrode as required including excavation & refilling				0
	37.2.1	Excavation 4.5 m by manual labour	Each	1942.00	10	19420
	37.2.2	Excavation by making hole with auger	Each	1622.00	10	16220
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	20	149740
37.4		Earthing with copper earth plate 600mm X 600mm X 3mm thick including accessories and providing masonry encloser in	Each	16341.00	20	326820

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External Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
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	40	66200
	37.5.1	Add extra for using salt and charcoal/coke for G.I. plate or copper plate earth electrode as required including excavation in hard rock and refilling the pit with black soil.	Each	2783.00	40	111320
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	2500	52500
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	250	28500
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	1000	147000
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	250	372500
37.18		Providing and fixing 4.87mm (6 SWG) dia. G.I. wire on surface or in recessed for loop earthing as required	Metre	30.00	200	6000
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	60	466080
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	40	917440
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.				
	31.14.6	150Watt, color temp 3000-6500k as required.	Each	21572.00	60	1294320
	31.14.8	250Watt, color temp 3000-6500k as required.	Each	34279.00	40	1371160

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External Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
31.16		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, testing etc. to complete the job.				
	31.16.2	Bollard LED 8-10 Watt mushroom shape height > 600mm, color temp 3000-6000k	Each	4344.00	50	217200
31.22		Supplying and fixing LED fire signage i/c 6V. 9AH, lithium battery sealed 2hrs backup double side hanged/fixed on wall or ceiling etc. as required with necessary material to complete the job. Guarantee as per tender agreement condition.	Each	7093.00	15	106395
31.27		Supply & Fixing of Decorative LED Street Light of 1 to 3 watt with each , system lumens output with Efficacy>=135lm/W(@6500k), It's body made of Die cast aluminium using pressure die-casting process. Hole for coupling on pipes Ø 60 mm, for lateral installation. Silicon gasket ensures the IP protection. IP Rating - IP66. Power LED Module with high efficacy LED's on single Printed Circuit Board with metal core plate. Colour Rendering Index: Ra > 70. Electronic Power Supply for LED Module, which offers Protection against Short Circuit, Over-Voltage & Over- Current, with in-built surge protection upto 4kv (an additional surge protection device of 10kV also provided in-built the fixture). PF >0.95 and THD<10%. Lens cover in PC (IK09). Estimated LED Lifetime is L70 @ 1,00,000 hours minimum. LM79-80 report from LED manufacturer should be submitted. Safety test report as per IEC 60598-2-3; IEC 60598-1 / IS 10322 IEC 61347 i/c connection wire , testing etc-Supporting Test Report from NABL approved lab, with 5 year on site warranty.				
	31.27.6	150Watt, Color Temp 3000-6500k as required	Each	23083.00	100	2308300
42.95		Providing and erection on existing foundation12.5 meter high mast lighting system suitable to install 6 No. 2 x 400 w M.H.S.V/LED flood light fitting and control gear with integral Power tool, weight 340 kg.comprising of 2 section of hot dipped galvanized materials as per BSEN ISO 1461 thickness 3 mm, dia 100mm & 360mm for top and bottom respectively, stress fitting arrangement on site with 350mm 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. Lighting 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 50 NB ERW class-B, MS pipe covered with PVC sleeve suitable to carry 250kg. load and upto 6 fittings symmetrically. (2) Trailing copper cable 5x2.5 sq.mm, EPR insulated PCP sheathed. (3) Double drum/350kg winch having gear 53:1, oil bath (SAE90/140) arrangement. (4) 2 nos. stainless steel wire ropes 5mm dia (7/19) breaking load capacity 1450 kg.x 2. (5) Integral power tool 3-phase, 0.75 HP 2m/min single speed. (6) Feeder pillar fabricated out of 14 SWG CRCA sheet and comprise of incoming MCB 32 A TPN switch, HRC fuses, single dial timer, suitable size of contactors for lighting and power tool, 2 nos. outgoing, reversing switch for motor. (7) Foundation drawing, test certificate and guarantee certificate shall be provided by manufacturer. (without fixture and lamp)	Each	205322.00	2	410644

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External Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
42.96		Providing and erection on existing foundation 16 meter high mast lighting system suitable to install upto 8 No. 2 x 250/ 400 w M.H.S.V/LED Flood light and control gear with integral power tool, weight 450 kg, comprising of 2 sections of hot dipped galvanized materials as per BSEN ISO 1461 thickness 3 mm & 4 mm, 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 bolts having 6 nos. bolts of 24mm dia 750 mm long (EN.8 grade) anchor plate 445 PCD, including accessories viz. (1) Lantern carriage of 50 NB ERW class-B, MS pipe covered with PVC sleeve suitable to carry 500kg, load and upto 8 fittings symmetrically. (2) Trailing copper cable 5x2.5 sq.mm, PVC insulated PVC Sheathed (3) Double drum 350Kg Winch having gear 53:1, oil bath (SAE90/140) arrangement (4) 2 nos. Stainless steel wire ropes 5 mm dia (7/19) breaking load capacity 1450 kg x 2. (5) Integral power tool 3-phase, 0.75HP 2m/min single speed torque limiter upto 500 kg adjustable (6) Single LED 300 Nos. aviation light (7) Feeder pillar fabricated out of 14 SWG CRCA sheet and comprise of incoming MCB 32 A TPN switch, HRC fuses, single dial timer, suitable size of contactors for lighting and power tool, 2 nos. outgoing, reversing switch for motor. (8) Foundation drawing, test certificate and guarantee certificate shall be provided by manufacturer. (without fixture and lamp)	Each	266303.00	1	266303
						0
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.				
	42.98.7	9 meter height, 155 X 70mm A/F, 250x250x16mm base plate having weight 87 kg ± 3%, 4 nos. X 24 x 750mm bolt having weight 12 kg ± 3%.	Each	15447.00	20	308940
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	30	9690
42.101		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	10	20710
42.103		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	20	69920
42.104		Single arm standard bracket				
	42.104.2	Providing and fixing of 1500mm long Single Arm GI Hot Dip Galvanized Bracket with 42.4mm OD and 3.2mm thick Pipe. Canopy pipe should be 500mm with 4 Nos 10mm dia Pinch bolts.	Each	3084.00	30	92520
42.105		Double arm standard bracket				
	42.105.2	Providing and fixing of 1500mm long Double Arm GI Hot Dip Galvanized Bracket with 42.4mm OD and 3.2mm thick Pipe. Canopy pipe should be 500mm with 4 Nos 10mm dia Pinch bolts.	Each	4583.00	30	137490
42.106		Providing and fixing of ring carriage dia. not less than 750mm made of 50mm dia. GI pipe Light 'A' class for 70mm A/F top octagonal pole with required clamps, nut, bolt etc as required.	Each	2468.00	5	12340
42.107		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)				
	42.107.3	5 meter height	Each	23654.00	40	946160
42.108		Designing & casting of open raft shallow footing foundation with M-20 cement concrete suitable for 12.5meter High Mast considering the safe soil bearing capacity at site as 10 T/sqm at 2meter depth including excavation, foundation nut bolts in an approved manner as per manufacturer drawing or Engineer-in-charge.	Each	33771.00	2	67542
42.109		Designing & casting of open raft shallow footing foundation with M-20 cement concrete suitable for 16meter high mast considering the safe soil bearing capacity at site as 10 T/sqm at 2meter depth including excavation, foundation nut bolts in an approved manner as per manufacturer drawing or engineer-in-charge.	Each	41931.00	1	41931
42.111		Designing and construction of footing foundation for octagonal pole of desired size including excavation in soil/soft rock, base concrete M-7.5 (1:4:8), 15mm thick and pedestal of RCC M-20 (1:1.5:3), required tar steel reinforcement for required size from base concrete, shuttering, curing etc. with existing foundation bolts complete as per specifications in an approved manner as per manufacturer drawing or engineer-in-charge.	Cu. Mt.	6770.00	20	135400
PWD-2025	21.270	Supply & Fixing of ARCHITECTURAL POLE made in combination of mild steel pipe sections (3mm). The pole to be provided with a suitable size steel base plate. This mounting steel base plate along with foundation bolts of suitable size to be used for ensuring firm grouting into the specially designed RCC foundation. After Fabrication, Entire Pole is hot dip galvanized (60 microns Minimum) for the effective corrosion resistance. The hot dip Galvanized pole should be provided with an inbuilt junction box to fix 32A connectors and 6A MCB, at the bottom - the inbuilt box should have a flush door of suitable size. Wind pressure calculation as per IS 875 (part-3) & structural calculation report as per EN40 should be submitted to verify the pole strength. Pole & it's parts are painted in 3 layer coating (coating thickness-100 microns minimum) in which 1st layer with etch primer, 2nd layer with epoxy primer & 3rd final layer with PU paint. Entire pole shall be made to provide pleasing aesthetics.				
PWD-2025	21.270.1	6 Meter Height (Bottom Dia 114mm) X (Middle Dia 89mm) x (Top Dia 60mm), 250x250x18mm Base Plate, 4 Nos X 16 x 600mm bolt.	Each	35480.00	50	1774000
PWD-2025	21.270.4	Single Arm bracket made in combination of MS pipe section of 60mm dia. (vertical) & gradually bent 60mm dia. & 27mm dia. - horizontal, to get pleasing aesthetics & arm length of 1000mm.	Each	3500.00	20	70000
PWD-2025	21.270.5	Double Arm bracket made in combination of MS pipe section of 60mm dia. (vertical) & Gradually bent 60mm dia. & 27mm dia. - horizontal, to get pleasing aesthetics & arm length of 1000mm (Each Side).	Each	6500.00	30	195000

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External Electrification						
Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
21.271	21.271	Supply & Fixing of Decorative LED Suspended Street Light with Overall Luminaire Efficiency->=130lm/W(@4000k), it's Upper cover in aluminium with quick coupling threaded G 3/4" for support, bottom Frame with company logo engraved/embossed in mould made from two die-cast aluminium rings made of pressure diecasting process. joined together by a hidden hinge inside. with quick-shut system to two stainless steel spring latches. Silicon Gasket is provided between upper & bottom frame. IP Rating - IP66. Area Exposed to Wind (S) - 0.112 m2 Power LED Module with the metal core plate, in compliance with IBC 62031 (Supporting Test Report from UL Authorized Laboratory should be submitted. SMD type LED Chips shall be used- same should be supported by LED manufacturer's tech sheet Colour Rendering Index: Ra > 70. Electronic Power Supply for LED Module, which offers Protection against Short Circuit, Over- Voltage & Over- Current, with in-built surge protection up-to 4kv (an additional surge protection device of 10kV also provided in-built the fixture). Modular (2 X 2) refractive lens in PMMA with rype- 11/III/IV photometric distribution options. Protection screen in clear tempered glass with impact resistance IK 08. LM80 reported Lifetime is L90@ 100,000 hours(Ts: 85° C) minimum. LM 80 report from LED manufacturer should be submitted to support the same. The Light fixture shall be in compliance with IEC 60598-2-3: IEC 60598-1/ IS 10322(Supporting Test Report from 3rd party NABL/ UL /UL Authorized/Intertek Laboratory should be submitted). LM79 report should be submitted from 3rd party NABL / UL /UL Authorized/Intertek Laboratory				
	21.271.2	60Watt, Color Temp 3000-6500k as required, Minimum Dimensions :Height – 225mm, Diameter - 420mm	Each	58200.00	50	2910000
	21.269	Supply of cloud-based CCMS Group control cum gateway communicating on RF Free band frequency with SLC and	Each	198000.00	2	396000
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 Engineer-in-charge.				
	48.1.18	Supply, installation, testing and commissioning of diesel generating set three phase, water cooled with AMF control panel, 300/320 KVA, 415V. With electronic governor.	Each	5209096.00	1	5209096
	48.1.20	Supply, installation, testing and commissioning of diesel generating set three phase, water cooled with AMF control panel, 500 KVA, 415V. With electronic governor.	Each	8109464.00	0	0
	MPEB SOR	KV, 630A, 21 KA for 3 sec SF6 insulated, (Two Incomers + Two Outgoing) consisting of 2 nos remote operated motorised load break	Each	1101696	1	1101696
	MPEB SOR	Supply, installation, testing and commissioning of RMU 11 KV, 630A, 21 KA for 3 sec SF6 insulated, (Two Incomers + Two Outgoing) consisting of 2 nos remote operated motorised load break	Each	100495.5	1	100495.5
Total Amount						32578840.5

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HVAC Work

Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
46.3		Suction/ discharge copper pipe line in split AC	Supply, installation, testing & commissioning of suction/discharge copper pipe line in split air conditioning unit 1.0/1.5 TR/2 TR/3 TR capacity including brazing, nitrile rubber insulation 6/9mm thick class 'O', etc complete as required.				
	46.3.1	Copper tube 1/4"	Copper tube 1/4"	P. Mt	437.00	90	39330
	46.3.2	Copper tube 3/8"	Copper tube 3/8"	P. Mt	550.00	75	41250
	46.3.3	Copper tube 1/2"	Copper tube 1/2"	P. Mt	657.00	70	45990
	46.3.4	Copper tube 5/8"	Copper tube 5/8"	P. Mt	815.00	60	48900
	46.11.2	SPLIT AC (inverter model, Cooling)	SPLIT AC (inverter model, Cooling only)				
	46.11.2.4	1.5 TR, 5 star	1.5 TR star rating 5 star	Each	52800.00	10	528000
	46.11.2.6	1.8 /2 TR, 5 star	1.8/2 TR star rating 5 star	Each	67800.00	10	678000
	46.13.3	AC installation, wall mounted	AC installation: - Installation of split type wall mounted air conditioner indoor, outdoor unit fitted with rotary compressor, copper condenser and first charge refrigerant R410A, including connection of copper pipe and material supplied with complete unit etc as required. (excluding cost of copper pipe)	Each	1500.00	20	30000
46.18		VRV/VRF outdoor AC unit	VRV/VRF outdoor AC unit:- Supply installation testing and commissioning of VRV /VRF /MRV outdoor units with following multiple inverter based scroll type compressors, electronic expansion valve, R 410A/ecofriendly green refrigerant, cooling & heating mode both options, special pre-coated fin type heat exchanger, low noise direct driven propeller condenser fans in each module with top discharge including internal wiring, microprocessor controls, safety. The condensing unit should be capable of providing cooling between +/- 5deg. C. to 48 deg. C & heating within 0 deg. C to 15 deg. C, COP not less than 3.3. Each system should have the provision to combine maximum 3 nos compressor in each outdoor unit, every single outdoor unit should not have more than maximum Capacity 20 HP (3 phase) each compressor complete as per specification. Outdoor/indoor units should be of same make (brand). (Single phase/three phase)				
	46.18.8	20 HP	20 HP	Each	483570.00	2	967140
	46.18.18	40 HP	40 HP	Each	973359.00	2	1946718
	46.18.28	60 HP	60 HP	Each	1462753.00	2	2925506
46.20		VRV/VRV indoor AC unit (ceiling mounted 4 way)	VRV/VRV indoor AC unit (ceiling mounted 4 way):- Supply installation testing and commissioning of 4 way round flow ceiling suspended/mounted cassette type unit comprising of copper evaporator, electronic expansion valve, blower, motor, filter pad, auto air swing louvers, temperature & on/off display with inbuilt drain pump & decorative panels including internal wiring, controls. Dimension in terms of length & width should not be more than 950mmX 950mm with wireless remote controller. (Single phase/three phase)				
	46.20.6	2.64 TR	2.64 TR	Each	67939.00	3	203817
	46.20.7	3.30 TR	3.30 TR	Each	69251.00	4	277004
	46.20.8	4.13 TR	4.13 TR	Each	70562.00	4	282248
	46.20.9	4.50 TR	4.50 TR	Each	73690.00	4	294760
46.30		Copper piping	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.				
	46.30.2	41.1 mm OD	41.1 mm O.D. wall thickness \geq 1.4mm (insulation – 19 mm thick)	Rmt	2379.00	220	523380
	46.30.4	34.9 mm OD	34.9 mm O.D. wall thickness \geq 1.4mm (insulation – 19 mm thick)	Rmt	1821.00	310	564510
	46.30.5	28.6 mm OD	28.6 mm O.D. wall thickness \geq 1.2mm (insulation – 19 mm thick)	Rmt	1390.00	160	222400
	46.30.7	22.2 mm OD	22.2 mm O.D. wall thickness \geq 1.0mm (insulation – 19 mm thick)	Rmt	975.00	191	186225
	46.30.8	19.1 mm OD	19.1 mm O.D. wall thickness \geq 1.0mm (insulation – 13 mm thick)	Rmt	889.00	220	195580
	46.30.9	15.9 mm OD	15.9 mm O.D. wall thickness \geq 0.8mm (insulation – 13 mm thick)	Rmt	874.00	250	218500
	46.30.10	12.7 mm OD	12.7 mm O.D. wall thickness \geq 0.8mm (insulation – 13 mm thick)	Rmt	689.00	205	141245
	46.30.11	9.5 mm OD	9.5 mm O.D. wall thickness \geq 0.8mm (insulation – 13 mm thick)	Rmt	588.00	210	123480
	46.30.12	6.4 mm OD	6.4 mm O.D. wall thickness \geq 0.8mm (insulation – 13 mm thick)	Rmt	475.00	190	90250
46.31		Drain piping	Drain piping :- Providing and fixing of CPVC, 6Kg/cm2 drain water piping with fittings, support and insulated with 6 mm thick closed cell elastomeric nitrile rubber insulation complete as per specification.				
	46.31.2	25 mm dia	25 mm dia ID	Rmt	202.00	150	30300
	46.31.3	32 mm dia	32 mm dia ID	Rmt	297.00	220	65340

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HVAC Work

Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
46.32		Flexible pre	Flexible pre insulated duct: - Supply and fixing of aluminum foil flexible pre-insulated duct in accordance with the approved specifications.				
	46.32.1	100 mm dia	100 mm dia	Rmt	360.00	247	88920
	46.32.2	150 mm dia	150 mm dia	Rmt	448.00	267	119616
	46.33.5	Installation of wall mounted indoor split unit	VRF/VRV indoor AC unit installation charges: - Installation of wall mounted indoor split unit including labor for internal wiring, controls complete as per specification. (Single phase/three phase)	Each	1500.00	20	30000
	46.33.6	Installation of cassette unit 4/2/1 way	VRF/VRV indoor AC unit installation charges: - Installation of cassette unit 4/2/1 way flow ceiling suspended/mounted cassette type unit & decorative panels including labor for internal wiring, controls with wireless remote controller. (Single phase/three phase)	Each	4000.00	0	0
	46.33.11	Installation of VRF/VRV/MRV outdoor unit	VRF/VRV outdoor AC unit installation charges: - Installation of VRF/VRV/MRV outdoor unit including labor for internal wiring, controls complete as per specification. (single phase/three phase)	Per HP	1400.00	15	21000
46.34		Refrigerant	Refrigerant:- Supply and additional refrigerant charge of refrigerant R410/410A & equivalent Eco friendly green gas to compensate the additional piping done at site for all systems including testing commissioning as required,	Kg	1437.00	1500	2155500
46.35		Y joints	Y joints:- Supply, installation, testing & commissioning of ref nut/Y-joints brass for indoor and outdoor units of suitable size as per requirement,	Each	5500.00	40	220000
46.36		Ducting	Ducting:- Supply and fixing of site fabricated GI sheet metal ducts in accordance with the approved shop drawings and as required as per specifications. GI sheet will be as per IS-277. All necessary GI /MS supports using thread rods (as directed). Angle, flat, and anchor bolts, food grade neoprene gaskets, food grade adhesive included in the scope.				
	46.36.1	24G	24G	Sq.mtr	1291.00	450	580950
	46.36.2	22G	22G	Sq.mtr	1473.00	368	542064
	46.36.3	20G	20G	Sq.mtr	1603.00	270	432810
46.37		Thermal insulation	Thermal insulation :- Supplying and fixing of following thickness of mat finish closed cell nitrile rubber (class "1") insulation on existing duct after applying two coats of cold setting adhesive complete as per specifications and as required.				
	46.37.2	19 mm thick	19 mm thick	Sq.mtr	960.00	587	563520
	46.37.3	12/13 mm thick	12/13 mm thick	Sq.mtr	691.00	478	330298
46.38		Internal duct acoustic insulation	Internal duct acoustic insulation: - Supply, installation, testing and commissioning of internal duct acoustic insulation with open cell structured class "O" fire retardant nitrile rubber with density 140 - 180 kg/m ³ and specs as per RISAC chart specification sheet inside of the AHU supply air ducting up to 4 mtr. length from AHU mouth as per the specifications, it should have antimicrobial properties.				
	46.38.2	10 mm thick	10 mm thick	Sq mtr	989.00	658	650762
46.39			Grills and diffusers				
	46.39.1	Al. air grills	Supplying & fixing of powder coated extruded aluminum air grills without volume control damper complete as required.	Sq.mtr	9565.00	147	1406055
	46.39.2	Coller damper	Supplying & fixing of coller damper complete as required.	Sq.mtr	10483.00	98	1027334
	46.39.3	Al. square diffuser	Supplying & fixing of powder coated extruded aluminum square diffuser without volume control damper complete as required.	Sq.mtr	11910.00	50	595500
	46.39.4	Al. square diffuser	Supplying & fixing of powder coated extruded aluminum square diffuser with volume control damper complete as required.	Sq.mtr	14067.00	47	661149
	46.39.5	G.I duct	Supplying & fixing of G.I duct volume control damper	Sq.mtr	10100.00	40	404000
46.40		Flexible connections	Flexible connections :- Providing & fixing of flexible canvas connection between indoor unit and duct to avoid the vibration transfer	Each	1794.00	50	89700
46.41		Control cable	Controlcable: - Supply and laying, testing & commissioning of following sizes of copper conductor control cables on existing tray including fixing clamps & proper connections to equipment etc. complete as required.				
	46.41.4	4Cx4 sq.mm	4Cx 4 sq.mm	Rmt	350.00	250	87500
	46.41.5	4Cx6 sq.mm	4Cx 6 sq.mm	Rmt	473.00	247	116831
	46.41.6	4Cx10 sq.mm	4Cx 10 sq.mm	Rmt	899.00	280	251720
46.42		Communication cable	Controlcable: - Supply and laying, testing & commissioning of following sizes of shielded copper conductor Communication cables on existing tray including fixing clamps & proper connections to equipment etc. complete as required.				
	46.42.1	2Cx1.5 sq.mm	2Cx1.5 sq.mm	Rmt	255.00	550	140250

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HVAC Work

Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
46.43		Outdoor stand fabrication	Outdoor stand fabrication :- Supply, fabrication and erection of angle/channel/flat iron stand, hanging arrangement for air conditioning machines & ducts etc, back /support clamps 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 enamel paint as required as per specification.	Kg	85.00	3500	297500
46.46		External duct insulation	External duct insulation :- Supplying & fixing of following thickness of mat finish closed cell nitrile rubber (class "O") insulation along with company fitted weather proof UV protected glass wool cloth for protection of weather conditions and mechanical damages to insulation on existing duct after applying two coats of cold setting adhesive complete as per the specifications as required.				
	46.46.1	19 mm thick	19 mm thick	Sq mtr	1243.00	254	315722
						Total Amount	21798574

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Façade Lighting							
Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in)	Qty	Amount
56.1	56.1	Surface wall mounted 9W LED	Supply and fixing of IP 65, Surface wall mounted 9W LED up/downlighter decorative wall light fixture with anti glare beam angles 24deg - 36 deg as required. Fixture should be Aluminium with light reflectance surface, SS clamps, screws as required. CRI80+ NON DIM with led power supply built in color tolerance: -MacAdam 4 SDCM LED	Each	14635.00	150	21,95,250.00
56.2	56.2	Surface/recessed ceiling mounted LED downlighter	Supply and fixing of surface/recessed ceiling mounted LED downlighter fixture. Fixture should be Aluminium die cast, ADC 12, cable gland, SS clamps, screws as required. Glare quotient to be minimum & black body surface for glare control, should have honeycomb louvers for anti-glare, minimum 100 lm/watt, 8deg-15deg as required, working temperature 20°C +45°C IP Rating IP65 (not for permanent immersion) insulation class III. Choice of three colour temperatures as standard 2700K-5700K and delivers 90CRI for excellent colour rendering, and with binning-free LEDs carefully selected from two-step Macadam's ellipse. Fittings smart shield protected against polarity inversion, Protection class IP 65, safety class III. Safety glass, clear. Reflector made of pure anodised aluminium.				
	56.2.2	30W LED	30W LED Downlighter with honeycomb louvers	Each	26831.00	60	16,09,860.00
56.3	56.3	Surface/recessed ceiling mounted 15W deep LED	Supply and fixing of IP65 of surface/recessed ceiling mounted 15W deep LED downlighter fixture. Fixture should be Aluminium die cast, ADC 12, cable gland, SS clamps, screws as required. Glare quotient to be minimum & black body surface for glare control, should have honeycomb louvers for anti-glare, 24deg-48 deg as required, working temperature 20°C +45°C IP rating IP65 (not for permanent immersion) insulation class III. Choice of three colour temperatures as standard 2700K-5700K and delivers 90CRI for excellent colour rendering, and with binning-free LEDs carefully selected from two step Macadam's ellipse. fittings smart shield protected against polarity inversion, Protection class IP 65, safety class III. Safety glass, clear. Reflector made of pure anodised aluminium.	Each	14635.00	40	5,85,400.00
56.4	56.4	Surface ground mounted 3-6W small LED projector	Supply and fixing of IP 65 surface ground mounted 3-6W small LED projector fixture with snoot & Honeycomb louver, product fitted with 700ma 8deg-24deg as required, 3000K-4000K CRI80+ NON DIM with led power supply built in color tolerance: -MacAdam 4 SDCM LED mounting AR111 similar optics PC lens. Fixture should be Aluminium die cast, SS clamps, screws as required. The finish should be stainless steel.	Each	12196.00	40	4,87,840.00
56.5	56.5	Recessed ground mounted deep LED uplighter	Supply and fixing of recessed ground mounted deep LED uplighter fixture with Honeycomb Louver, protected Uno PATHFINDER IP66 2700K-5500K 8deg-24deg as required, stainless steel body hard anodized aluminium finishes stainless steel & IK rating 08. Installation housing box power supply cables 5cm NS200 PCP 2x0.5 mm2 power supply 24V DC power consumption max 9 Watt lamp output 240-680lm working temperature 20°C +45°C IP rating IP66 (not for permanent immersion) insulation class III Weight upto 500gm and delivers 90CRI for excellent colour rendering, and with binning-free LEDs carefully selected from two-step Macadam's ellipse. PATHFINDER is smart shield protected against polarity inversion, an integrated super fast diode prevents accidental damage to the luminaire during installation on due to reverse polarity. Smart shield protects against 'hot-plugging'. Fully integrated spike-reduce on protects the constant current driver and prevents damage to the LED die surface. With housing box included and LED driver in IP66 casing box included.				
	56.5.3	9W recess deep	9W recess deep uplight	Each	17684.00	100	17,68,400.00
56.6	56.6	Instant outline direct view diffuse	Supply and fixing of IP66 protected aluminium instant outline direct view diffuse 3000K-5000K with back profile with integrated cable alley for cable management with integrated IP rated cable connectors hidden within profile for additional protection from weather. Cross section of profile Silver anodized surface mounted aluminium profile 25 mm (W) x 20 mm (D) (minimum), with opal semi translucent sealed encapsulation, protection grade IP66, Minimum 85 lm/watt, DC 24 V, CRI-80Ra, standard length 2000 mm, excl. converter and end caps. The support is made of an anodized extruded aluminium frame which makes it possible to first fix SS the wall/ceiling.				
	56.6.3	15W/meter	15W per meter	Meter	7317.00	1000	73,17,000.00
56.7	56.7	Instant outline 10W/pm flexible LED direct view diffuse	Supply and fixing of IP66 protected aluminium instant outline 10W/pm flexible LED direct view diffuse 3000-5000K/RGB with back profile with integrated cable alley for cable management with integrated IP rated cable connectors hidden within profile for additional protection from weather. Cross section of profile Silver anodized surface mounted aluminium profile 35 mm (W) x 35 mm (D) OR 50 mm (W) x 50 mm (D) (minimum), with opal semi translucent sealed encapsulation, protection grade IP66, DC 24 V, 750 lm/m, 10 Wm, CRI-80Ra, standard length 2000 mm. Excl. converter and end caps. The support is made of an anodized extruded aluminium frame which makes it possible to first fix SS the wall/ceiling.	Meter	12196.00	180	21,95,280.00
	56.7.1	RGB DMX controller	RGB DMX controller having 24V/48V DC input maximum 300W.	Each	60979.00	4	2,43,916.00
	56.7.2	RGB DMX SLAVE	RGB DMX SLAVE having 24V/48V DC input.	Each	42685.00	15	6,40,275.00
56.8		Long linear LED uplighter extrusion fixture	Supply and fixing of recessed surface ground mounted 3000K-5500K, 10deg-15deg as required 1m long linear LED uplighter extrusion fixture with VISOR & Honeycomb Louver with & IK rating 06, IP 65 cable gland, SS Clamps, screws as required with swivel mounting.				
	56.8.3	30W	30W	Each	29270.00	200	58,54,000.00
56.9	56.9	Asymmetric LED step light	Supply and fixing of decorative recessed wall mounted 6W Asymmetric LED step light 4"x4" 15- 18 deg luminaire Aluminium die cast, ADC 12, IP 65 cable gland, SS clamps, screws as required	Each	10976.00	30	3,29,280.00
56.10	56.10	20W LED with snoot	Supply and fixing of IP 65 surface ground mounted product fitted with 700ma 20W LED with snoot 8deg-24deg 3000K-4000K CRI80+ nondimmable led power supply built in Color tolerance: -MacAdam 4 SDCM LED similar optics PC lens. Fixture should be IK rating 07, Aluminium die cast, SS clamps, screws as required. The finish should be stainless steel.	Each	21952.00	20	4,39,040.00
56.11	56.11	Surface wall mounted 6W 4 way grazer	Supply and fixing IP65 surface wall mounted 6W 4 way grazer 3"x3" LED fixture fitted with 700ma 8deg-15 deg 3000K-4000K. Luminaire should be Aluminium die cast, CRI 80+ non-dimmable with led power supply - 4 Macadam SDCM LED.	Each	17684.00	20	3,53,680.00
56.12	56.12	Recessed ground mounted deep LED marker fixture	Supply and fixing of recessed ground mounted deep LED marker fixture with diffused light 3000K 5000K, CRI-80, 45deg-60deg stainless steel 1W- 3W, body/hard anodized aluminium finish, stainless steel & IK rating 08, working temperature 20°C +45°C IP rating IP66 (not for permanent immersion) insulation class III weight upto 100gm, protected against polarity inversion, fully integrated spike-reduce on protects the constant current driver and prevents damage to the LED die surface, with housing box included and LED driver in IP66 casing box included.	Each	9147.00	30	2,74,410.00
56.13	56.13	Decorative surface wall mounted LED	Supply and fixing of decorative surface wall mounted LED 3"x3" fixture fitted with 700ma LED, 10deg-15deg 3000K-4000K. Fixture should be Aluminium die cast, CRI 80+, IP65, non-dimmable led power supply - 4 Macadam SDCM LED with 10 deg/15 deg optics PMMA				
	56.13.3	9W LED	9W LED	Each	10976.00	20	2,19,520.00
56.14	56.14	11W LED bollard	Supply and fixing of IP 65 surface ground mounted luminaire fitted with 700ma 11W LED bollard with 8deg-24deg 3000K-4000K CRI80+ nondimmable LED power supply built in Color tolerance -MacAdam 4 SDCM LED similar Optics PC lens. Fixture should be IK rating 07, Aluminium die cast, SS clamps, screws as required. The finish should be stainless steel.	Each	21952.00	30	6,58,560.00
56.15	56.15	100W LED pole light	Supply and fixing of IP 65 surface ground mounted product fitted with 700ma 100W LED pole light with 36deg-60deg 3000K-4000K CRI80+ nondimmable LED power supply built in Color tolerance: -MacAdam 4 SDCM LED similar optics PC lens. Fixture should be IK rating 07, Aluminium die cast, SS clamps, screws as required. pole length as per site requirement.	Each	42685.00	10	4,26,850.00
56.16	56.16	LED RGB/RGBW flood lighting luminaire	Supply and fixing of LED RGB/RGBW flood lighting luminaire for facade lighting with Die-cast aluminium housing, powder-coated finish, of following wattage. Luminaire shall be capable of producing dynamic color changing light for with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100-270 V AC, 50 Hz with power factor > 0.9. Fixture shall be suitable to operate at ambient temperature range of -10°C to +50°C and shall be IP 65 and IK 06 rated. Lifetime shall be at least L70/50000 burning hours at 50°C. Luminaire shall be conforming to BIS (IS 10322) and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.	Each	50022.00	30	15,00,660.00
	56.16.6	110W/115W	110W/115W	Each	50022.00	30	15,00,660.00
56.17	56.17	LED RGB/RGBW Linear Wall Washer luminaire	Supply and fixing of LED RGB/RGBW Linear Wall Washer luminaire for Facade lighting with aluminium extruded housing, of following wattage. Luminaire shall be capable of producing dynamic color changing light with 16 million colors by DMX/Ethernet based control. The beam angle of the fitting shall be narrow, medium, wide or asymmetric as per the requirement. Luminaire shall be complete with driver and capable of operating at line voltage without any separate power supply from 100 to 270 V AC, 50 Hz, power factor > 0.9. Fixture shall be suitable to operate at ambient temperature range of -10°C to +50°C and shall be IP 65 and IK06 rated. Lifetime should be at least L70/50000 burning hours at 50°C. Luminaire shall be conforming to BIS and shall be complete with all necessary accessories required for proper working of fixture including weather proof connection cables, water proof connectors etc. as required.				
	56.17.4	40W	40W	Each	34240.00	40	13,69,600.00
46.41	46.41	Control cable	Control cable: - Supply and laying, testing & commissioning of following sizes of copper conductor control cables on existing tray including fixing clamps & proper connections to equipment etc. complete as required.				
	46.41.2	4Cx1.5 sq.mm	4Cx1.5 sq.mm	Rmt	140.00	1000	1,40,000.00
	46.41.3	4Cx2.5 sq.mm	4Cx2.5 sq.mm	Rmt	214.00	1500	3,21,000.00
Total Amount						2,89,29,821.00	

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ICT WORK

Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
38.14		HDMI connector & braided cord	Supply, installation testing and commissioning of High-Speed HDMI corrosion-resistant connector & braided cable, Supports Ethernet, 3D, 4K video, computers and other HDMI-enabled devices Black as required to complete the job as mentioned below :-				
	38.14.2	2 Metre, HDMI cord	2 Metre, HDMI cord	each	1801.00	10	18010
	38.14.3	5 Metre, HDMI cord	5 Metre, HDMI cord	each	3825.00	10	38250
	38.14.6	20 Metre, HDMI cord.	20 Metre, HDMI cord.	each	15752.00	6	94512
38.17		Rack	Supply, installation testing and commissioning of wall mounting rack, for computer switches/Patch Panel etc complete as mentioned below :-				
	38.17.1	6U cabinet	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	4	39012
	38.17.3	12U cabinet	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	2	36422
38.18		Floor mounting rack, base frame	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 :-				
	38.18.1	22U cabinet	22U cabinet with min. Dimensions 1150X600X600, floor mounting with power supply and fan, tray. Equipment support angle, vertical cable manager, 12 point 5Amp. vertical power strip, earthing continuity kit, castors (1 set of 4 nos.), captive H/W set of 10, fan tray with 4 fan, for computer .	each	47900.00	1	47900
38.19			CAT6A/OFC Networking (10G Support)				
38.19.1		CAT6A Cables					
38.19.1.2		CAT6A SFTP	Supply, Installation, lying, drawing of 4 Pair CAT6A SFTP Cable having 23AWG conductor, Voltage rating (Vdc): <80, 1-250 MHz: 100 +/- 15 Ohm, 250-500 MHz: 100 +/- 22 Ohm, ETL/UL in existing conduit / wiring system as direction of EIC.	Metre	214.00	4000	856000
38.19.2		CAT6A Patch Panel					
38.19.2.1		CAT6 A 24 PORT PATCH PANEL	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
38.19.2.2		CAT6 A 48 PORT PATCH PANEL	Supply, Installation, Commissioning of 48 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	50097.00	1	50097
38.19.3		CAT6 A SHIELDED TWISTED PAIR PATCH CORDS					
38.19.3.1		1 Mtr Patch Cord	SITC of 1 Mtr CAT6 A SHIELDED TWISTED PAIR PATCH CORDS ETL/UL.	Each	709.00	20	14180
38.19.3.2		2 Mtr Patch Cord	SITC of 2 Mtr CAT6 A SHIELDED TWISTED PAIR PATCH CORDS ETL/UL.	Each	858.00	20	17160
38.19.3.3		3 Mtr Patch Cord	SITC of 3 Mtr CAT6 A SHIELDED TWISTED PAIR PATCH CORDS ETL/UL.	Each	1063.00	20	21260
38.19.3.4		5 Mtr Patch Cord	SITC of 5 Mtr CAT6 A SHIELDED TWISTED PAIR PATCH CORDS ETL/UL.	Each	1454.00	5	7270
38.19.4		CAT6 A Computer Jack					
38.19.5		Optical fiber cable					
38.19.5.2		12 Core OS-2 SM Cable	SITC of 12 Core OFC Cable with Armored Uni-Tube, 9/125µm, OS 2 Type, . Complying to ISO/IEC 11801, EN50173, ANSI/TIA 568-C.3, Telcordia GR-20, Uni-tube construction, Water Blocking Thixotropic Gel (Tube) Petroleum Jelly (Interstices) in indoor / outdoor ducts, direct burial and backbone cabling	Metre	148.00	500	74000
38.19.6		Optical fiber Patch Cord					
38.19.6.1		1 Mtr OFC Patch Cord	SITC of 1 Mtr OFC SM Patch Cord with 9/125 µm, OS2 , Duplex Zipcord , SC-LC/LC-LC / SC-SC connector , 900µ tight buffer, ISO/IEC 1108:2008, ANSI/TIA/ EIA 568.C.3, ANSI/TIA/EIA-492, TELECORDIA GR-409, ICEA-596	Each	2998.00	10	29980

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ICT WORK

Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
	38.19.6.2	2 Mtr OFC Patch Cord	SITC of 2Mtr OFC SM Patch Cord with 9/125 μm, OS2 , Duplex Zipcord , SC-LC/LC-LC / SC-SC connector , 900μ tight buffer, ISO/IEC 1108:2008, ANSI/TIA/ EIA 568.C.3, ANSI/TIA/EIA-492, TELECORDIA GR-409, ICEA-597	Each	3140.00	10	31400
	38.19.6.3	3 Mtr OFC Patch Cord	SITC of 3 Mtr OFC SM Patch Cord with 9/125 μm, OS2 , Duplex Zipcord , SC-LC/LC-LC / SC-SC connector , 900μ tight buffer, ISO/IEC 1108:2008, ANSI/TIA/ EIA 568.C.3, ANSI/TIA/EIA-492, TELECORDIA GR-409, ICEA-598	Each	4035.00	5	20175
	38.19.6.4	5 Mtr OFC Patch Cord	SITC of 5 Mtr OFC SM Patch Cord with 9/125 μm, OS2 , Duplex Zipcord , SC-LC/LC-LC / SC-SC connector , 900μ tight buffer, ISO/IEC 1108:2008, ANSI/TIA/ EIA 568.C.3, ANSI/TIA/EIA-492, TELECORDIA GR-409, ICEA-599	Each	5016.00	5	25080
	38.19.7	Fiber Termination LIU					
	38.19.7.3	24 Port LIU	SITC, Splicing, Termination of 24 Port Full loaded LIU with SC-LC/LC-LC / SC-SC adopter, Splicing tray, Pigtaills, Termination, 1U 19" / ETSI versions available, Slidding Drawer for easy access of back side of connector, Fiber guides, radius controls & secure tie downs provided	Each	38986.00	2	77972
47.3		UPS (3 phase input & 3 phase output)	Supply, installation, testing and commissioning of UPS with isolation transformer & battery for backup, having three phases input three phase output. Online double conversion VFI-SS-111 technology, with sinusoidal wave form, architecture (standalone of distributed parallel up to 8 units), having input characteristics i.e. input voltage (380v, 400v, 415v, 3Ph+N+PE), input frequency (45 -65 Hz), input voltage range (Ph - Ph) : (half load 208v - 467v/full load 312v - 467v), total harmonic distortion of input current < 3% (at full linear load), compatibility with diesel generators configurable for synchronization between the input and output frequencies even for high frequency variations, input power factor > 0.99, having output characteristics i.e. output voltage (380v, 400v, 415v, 3Ph+N (adjustable from front panel), efficiency up to 96%, efficiency in ECO mode up to 98.5%, output frequency (nominal) 50 /60 Hz 0.01% free run (adjustable from front panel), crest factor 3 : 1, total harmonic distortion of output voltage < 2 % (at full linear load), output power factor 0.9, output voltage tolerance ± 1%, built in automatic and maintenance bypass, inbuilt isolation transformer, battery type (VRLA - AGM maintenance free), Communication & management i.e. LCD display (touch screen, LED bar status, live synoptic view for real time), communication ports (RS 232, gense, programmable 4 relay contacts, modbus), Audible alarm (acoustic alarms and warnings), Net interface slot (SNMP card optional), having emergency power off (EPO) & remote management. Ambient conditions i.e. operating temperature °C (0°C - 40°C), relative humidity % (20% - 95% not condensing), protection index (IP20), noise at 1 m dBA < 55. UPS installation with all required material arrangements as required as per IS specification.				0
	47.3.1	10 KVA 3Ph	10 KVA (3 phase input & 3 phase output)				
	47.3.1.2	60 min backup	For 60 minute backup, min. 16000 VAH	Each	442808.00	1	442808
	47.3.3	20 KVA 3Ph	20 KVA (3 phase input & 3 phase output)				
	47.3.3.2	60 min backup	For 60 minute backup, min. 32000 VAH	Each	702627.00	1	702627
54.7		4MP IP fixed rugged dome cam.	4MP IP fixed rugged dome camera				
	54.7.1	IP rugged dome camera	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	30	586590
54.8		4MP IP fixed IR bullet camera	4MP IP fixed IR bullet camera				
	54.8.1	IP bullet camera	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), 57°/48° (V),UL listed	Each	19309.00	30	579270
54.13		2 MP IP 25X zoom PTZ camera	2 MP IP 25X zoom PTZ camera				
	54.13.1	2MP IP PTZ camera	Supply, installation testing and commissioning of 2MP IP PTZ camera shall be equipped with a 1/2.8" exmor CMOS imager to capture full HD 1080p (50/60 fps)/ 25x zoom images, 4.8 mm-120mm, 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 328 ft (100m) 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: 2D/3D,backlight compensation :- True WDR 120 DB, built-in analytics, including face detection, automatically restores to previous PTZ and lens position after power failure preset speed pan: Up to 240°/s, tilt: Up to 200°/s, angle of view: H: 59.2° - 2.4° UL listed	Each	86237.00	5	431185
54.14		4MP IP varifocal MFZ dome camera IP67	4MP IP varifocal MFZ dome camera IP67				
	54.14.1	Outdoor WDR IR rugged IP dome cameras	Supply, installation testing and commissioning of outdoor WDR IR rugged IP dome cameras shall be equipped with 1/2.7" or 1/2.8" 2 MP progressive scan imager or 1/3" 4 MP progressive scan imager to capture 1080p resolution at 25/30 fps or 4 MP at 20 fps images, 2.7-12 mm or 7-22 mm, F1.4, motorized focus/zoom len, H.264 and MJPEG codec, triple stream support, 50 m (150') IR distance, depending on scene reflectance, waterproof (IP67) and IK10 vandal resistant camera housing, ONVIF profile S and G compliant , built-in PoE (Power over Ethernet) eliminates, separate power supply and associated wiring, 24 V AC/12 V DC inputs where PoE power is unavailable, supports up to 128 GB micro SDHC (class 10) card for local video storage when network is interrupted. Card not included.	Each	46383.00	25	1159575
54.15		4MP IP varifocal MFZ bullet camera IP67	4MP IP varifocal MFZ bullet camera IP67				

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ICT WORK

Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
	54.15.1	Outdoor WDR IR rugged IP bullet cameras	Supply, installation testing and commissioning of Outdoor WDR IR rugged IP bullet cameras shall be equipped with : 1/2.7" 2 MP progressive CMOS imager to capture 1080p resolution at 25/30 fps or 4 MP at 20 fps images, 1: 2.7-12 mm, MFZ, F1.4, H.264 and MJPEG codec, triple stream support, 60 m (150') IR distance, depending on scene reflectance, waterproof (IP67) and IK10 vandal resistant camera housing, ONVIF profile S and G compliant, built-in PoE (Power over Ethernet) eliminates, separate power supply and associated wiring, 24 V AC/12 V DC inputs where PoE power is unavailable, Supports up to 128 GB micro SDHC (class 10) card for local video storage when network is interrupted. Card not included, True WDR: up to 140 dB	Each	49281.00	25	1232025
54.21		16 channel NVR with 2 SATA	16 channel NVR with 2 SATA				
	54.21.1	16 channel NVR with 1080p	Supply, installation testing and commissioning of 16 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 2 SATA HDDs up to 16TB, 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	84721.00	5	423605
54.22		16 channel NVR with 4 SATA	16 channel NVR with 4 SATA				
	54.22.1	16 channel NVR With 1080p	Supply, installation testing and commissioning of 16 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	114098.00	2	228196
54.23		32 channel NVR with 4 SATA	32 channel NVR with 4 SATA				
	54.23.1	32 channel NVR with 1080p	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	8 port PoE switch with 2 SFP ports				
	54.27.1	8 port PoE switch with 2 SFP ports	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	6	138144
54.28		24 port PoE switch with 4 SFP ports	24 port PoE switch with 4 SFP ports				
	54.28.1	24 port PoE switch with 4 SFP ports	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	2	102658
54.29		Workstation with client license	Workstation with client license				
	54.29.1	Work station	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 7 professional 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	Hard disk				
	54.30.1	2 TB	Providing & fixing of 2 TB hard disk	Each	6414.00	2	12828
	54.30.2	4 TB	Providing & fixing of 4 TB hard disk	Each	10825.00	4	43300
57.2		LED TV	LED TV				
	57.2.2	42"~43"	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 & 1 USB Port, i/c remote and wall/table top accessories)	Each	32365.00	2	64730
15.1		Surface PVC conduit MMS	Surface PVC conduit MMS				
	15.1.2	25 mm. MMS	PVC conduit 25 mm. (MMS)	Metre	67.00	2500	167500
	15.1.3	32 mm. MMS	PVC conduit 32 mm. (MMS)	Metre	102.00	1000	102000
						Total Amount	8313362

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FIRE FIGHTING

Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
(A)	PUMP ROOM					
39.14	Horizontally mounted coupled motor (Eff-1) 75hp	Supplying, installation, testing & commissioning of approved make horizontally mounted coupled motor (Eff-1) 75hp, 2900 RPM, 3 Ph 415 V with mechanical seal pump delivery of 2850 litres per minute against total head of 70 meter so as to ensure a minimum pressure of 3.5 Kg/Cm2 at the highest. The impeller shall be closed type and accurately balanced dynamically. The pump shall be of cast iron, impeller shall be of bronze and shaft shall be of stainless steel, automatic air release valve, pressure gauges (combination suction gauge, 3½" dial type with ¼" cock and lever handle - 1 no, discharge gauge, 3½" dial type with ¼" cock and lever handle - 1 no.) i/c coupling, coupling guard, base channel foundation & matching flanges etc. as required as per specifications. The fire pump set as per NFPA –20 specifications.	Each	390087.00	1	390087
39.16	Jockey pump horizontally mounted coupled motor (Eff 2) 5.5hp	Supplying, installation, testing & commissioning of approved make jockey pump horizontally mounted coupled motor (Eff-2) 5.5hp, 2900 RPM, 3 Ph 415 V with mechanical seal pump, delivery of 180 litres per minute against total head of 70 / 88 meter so as to ensure a minimum pressure of 3.5 Kg/Cm2 at the highest. The impeller shall be closed type and accurately balanced dynamically. The pump shall be of cast iron, impeller shall be of bronze and shaft shall be of stainless steel. i/c coupling, coupling guard, base channel foundation & matching flanges etc. as required as per specifications.	Each	166401.00	1	166401
39.18	Diesel engine driven firefighting pump water cooled 105 BHP	Supplying & installation of approved make diesel engine driven firefighting pump water cooled 105 BHP 2150 RPM engine, fuel tank 200 litre (empty), accessories, matching flanges, base frame, ARV, fuel gauge, exide 12 Volt battery & charger, lugs & cable between battery & charger. The pump capacity of 2850 litres per minute at total head 70 meters, automatic air release valve, pressure gauges (combination suction gauge, 3½" dial type with ¼" cock and lever handle - 1 no, discharge gauge, 3½" dial type with ¼" cock and lever handle - 1 no.) as required. All above equipment's are mounted on common base plate. The fire pump set as per NFPA –20 specifications.	Each	631922.00	1	631922
39.20	Booster pump mono block horizontally mounted with motor (Eff-2) 7.5hp	Supplying, installation, testing & commissioning of approved make booster pump mono-block horizontally mounted with motor (Eff-2) 7.5hp, 2900 RPM, 3 Ph 415 V with mechanical seal pump, delivery of 600 LPM at 35 MWC against total head of 32 meter. The impeller shall be closed type and accurately balanced dynamically i/c base channel foundation etc. as required as per specifications.	Each	35000.00	1	35000
39.21	Fire pumps electrical panel :	Fire pumps electrical panel :				0
39.21.1	Cubical type floor mounted electrical control panel	Supplying, installation, testing & commissioning of cubical type floor mounted electrical control panel of 2.0 mm thick CRCA sheet suitable for 380-415 Volt, 50 Hz, 3 Ph supply, NEMA type 2 (IP 31) drip proof metal free standing enclosure for firefighting pumps with suitable star-delta starter including indicating lamps, ammeter, voltmeter, selector switches for each, incoming and outgoing feeder, auxiliary switches, dry suction cut off, single phase preventer, alu. bus bar etc. The panel shall be provided with interlocking arrangement between electric motor driven and diesel engine driven pumps so that only one pump can operate at one time and in case of any failure in electric motor driven pump the diesel engine driven pump shall operate automatically. The installation shall include all control wiring, accommodation for battery charger etc. and connections as required. Incoming : 1.No. 250 Amp 4 Pole MCCB, 35 KA 1 Set 300 Amp, 500V capacity 4 Nos. aluminium bus bar with epoxy insulator, heat shrink sleeve, required hole , nut bolt etc. 1 No. 96x 96 mm 0 to 500 Volt voltmeter selector switch and HRC fuse with base. 1 No. 96x 96 mm 0 to 300 Amp ammeter, selector switch and CT 1Set -3 nos. indicating lamp with HRC fuse and base Out goings : 2 Nos. 200 Amp 4 Pole MCCB,25 KA 2 Nos. 63 Amp 4 pole MCCB,10 KA. 1 No. fully automatic star delta starter suitable for main pump motor I/C CT, ammeter with selector switch & control with pressure switch, pump ON indicating lamp. 1 No. DOL starter suitable for jockey pump motor I/C CT, ammeter with selector switch. & control with pressure switch complete with auto/manual selector switch inter connecting wiring, control wiring from pressure switch to panel, pump ON indicating lamp. etc. complete as required.	Each	299686.00	1	299686
						0
39.22	Pressure switch	Supplying & installation of approved make pressure switch with 15 mm dia brass check nut for automatic operation on required pressure including necessary wiring up to control panel.	Each	2500.00	1	2500
39.23	Pressure gauges	Supplying & installation of pressure gauges with 15 mm dia brass check nut & capable of showing pressure reading from 0. to 30 kg.	Each	1650.00	1	1650
39.25	DOL starter 7.5 hp	Supply installation, testing and commissioning of approved make DOL starter 7.5 hp, 3 phase, 50 Hz, 415V, i/c single phase preventer, incoming MCB 32A 4P, 10KA , in outdoor type enclosure, connections, as required as per specifications.	Each	5000.00	1	5000
26.18	Air vessel	Providing and fixing air vessel made of 250mm dia, 8mm thick MS sheet, 1200mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia Gunmetal wheel valve, with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	Each	10150.00	1	10150
(B)	HYDRANT SYSTEM					
MPPWD 2024 (19.46)	UNDERGROUND HDPE PIPE					
		Providing, laying and jointing HDPE Double Wall corrugated (DWC) pipes (excavation to be paid seperately)				
19.46.3	19.46.3	200 mm dia	metre	608.00	550	334400

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FIRE FIGHTING

Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
MPPWD 2024 (26.2)	MPPWD 2024 (26.2)	C' class heavy duty MS pipe on wall				
		MS pipe in on wall/ceiling Providing laying, testing and commissioning of 'C' class heavy duty MS pipe confirming to IS 1239/3589 i/c fittings like elbows, tees, flanges, reducer, jointing with nuts bolts, gaskets and welding etc. and fixing the pipe on wall/ceiling with suitable hangers, clamps, supports, as required and painting with two or more coats of synthetic. Enamel paint of required shade complete as directed by Engineering-in-Charge.				
26.2.1	26.2.1	200 mm dia	metre	3086.00	120	370320
26.2.2	26.2.2	150 mm dia	metre	2203.00	350	771050
26.2.3	26.2.3	100 mm dia	metre	1527.00	500	763500
26.2.4	26.2.4	80mm dia	metre	1060.00	360	381600
DSER 2025	DSER 2025	Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above.				
3003	3003	M.S. Pipe 300 mm dia	metre	5026.50	60	301590
3004	3004	M.S. Pipe 250mm dia	metre	4217.40	90	379566
3014	3014	M.S. Pipe 25 mm dia	metre	296.10	160	47376
MPPWD 2024 (18.14)	MPPWD 2024 (18.14)	Ball valve				
		Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
18.14.3	18.14.3	25 mm dia	each	499.00	15	7485
MPPWD 2024 (26.6)	MPPWD 2024 (26.6)	Butterfly valve				
		Providing, fixing, testing and commissioning of butterfly valve PN 1.6, with Bronze/Gunmetal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, confirming to IS 13095, of following sizes as required.				
26.6.1	26.6.1	200 mm dia	each	8530.00	10	85300
26.6.2	26.6.2	150 mm dia	each	6815.00	10	68150
26.6.3	26.6.3	100 mm dia	each	4500.00	15	67500
26.6.4	26.6.4	80mm dia	each	3400.00	20	68000
MPPWD 2024 (26.8)	MPPWD 2024 (26.8)	Dual plate non- return valve				
		Providing, installation, testing and commissioning of dual plate non- return valve of following sizes confirming to IS 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
26.8.1	26.8.1	200 mm dia	each	9775.00	4	39100
26.8.2	26.8.2	150 mm dia	each	7350.00	4	29400
26.8.3	26.8.3	100 mm dia	each	4900.00	3	14700
MPPWD 2024 (26.7)	MPPWD 2024 (26.7)	Orifice plate				
		Providing and fixing orifice plate made of 6mm thick stainless steel with orifice of required size in between flanged and landing valve of external and internal hydrant to reduce pressure to working pressure of 3.5 kg/cm complete as per specification required.	each	1195.00	15	17925

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FIRE FIGHTING

Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
MPPWD 2024 (26.9)	MPPWD 2024 (26.9)	Stainless steel strainer				
		Providing, installation, testing and commissioning stainless steel strainer fabricated out of 1.6 mm thick stainless steel sheet with 3 mm dia holes with stainless steel flange.				
26.9.1	26.9.1	100 mm dia	each	6631.00	2	13262
MPPWD 2024 (26.1)	MPPWD 2024 (26.1)	Gun metal valves				
		Providing, installation, testing and commissioning of gun metal valves of following sizes as required.				
26.10.3	26.10.3	65mm dia	each	2106.00	15	31590
DSER 2025	DSER 2025	NON - RETURN VALVE with duel plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating for chilled / hot water circulation including insulation as specified.				
3042	3042	125mm dia	each	4074.40	4	16297.6
DSER 2025	DSER 2025	Y - STRAINER of Ductile CI Body flanged ends with stainless steel strainer for chilled / hot water circulation including insulation as specified.				
3046	3046	200mm dia	Each	35614.00	4	142456
3047	3047	150mm dia	Each	18992.00	4	75968
39.22	Pressure switch	Supplying & installation of approved make pressure switch with 15 mm dia brass check nut for automatic operation on required pressure including necessary wiring up to control panel.	Each	2500.00	4	10000
39.23	Pressure gauges	Supplying & installation of pressure gauges with 15 mm dia brass check nut & capable of showing pressure reading from 0. to 30 kg.	Each	1650.00	4	6600
MPPWD 2024 (26.11)	MPPWD 2024 (26.11)	RRL hose pipe				
		Supplying and fixing dia,15m long, RRL hose pipe with following diamale and female gun metal couplings duly binded with GI wire, rivets etc. confirming to IS 636 (type-A)as required.				
26.11.2	26.11.2	65mm dia	each	5510.00	30	165300
MPPWD 2024 (26.12)	MPPWD 2024 (26.12)	First -Aid hose reel				
		Providing and fixing first -Aid hose reel with MS construction spray painted in post office red, confirming to IS 884 with up to date amendments, complete with the following as required.) (a) 30-36m long 20mm (nomina linternal) dia water hose thermoplastic (textile reinforced) type -2 as per IS 12585 (b) 20mm (nominal internal) dia gun metal globe valve and nozzle. (c) Drum and brakets for fixing the equipments on wall. (d) Connections from riser with 40 mm dia stop valve (gun metal) and M.S. pipe	each	6065.00	30	181950
MPPWD 2024 (26.14)	MPPWD 2024 (26.14)	Hose cabinet size 700x600x300mm				
		Providing and fixing hose cabinet of size 700x600x300mm made of 16 gauge thick MS sheet with 4 mm thick float glass doors in front painted "FIRE" in red paint i/c necessary locking arrangement suitable to accommodate external hydrant with butterfly valve 2 nos. 15m Long hose pipe, 1 no branch pipe mounted on wall or raised brick platform& duly painted with post office red externally and white internally with synthetic enamel paint complete in all respects for external hydrant, as directed by Engineer-in-Charge.	each	4000.00	30	120000
MPPWD 2024 (26.15)	MPPWD 2024 (26.15)	4 way fire brigade connection				
		Providing and fixing 4way fire brigade connection (FBC)of cast iron body with 4 nos. gun metal male instantaneous inlet couplings complete with cap and chain as required. For 150mm dia MS pipe connection, confirming to IS 904 as required.	each	14150.00	4	56600
MPPWD 2024 (26.17)	MPPWD 2024 (26.17)	2 way fire brigade connection				

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FIRE FIGHTING

Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
		Providing and fixing 2 way fire brigade connection (FBC) of CI body with 2 nos. gun metal male instantaneous inlet couplings complete with cap and chain as required. For 150mm dia MS pipe connection, conforming to IS 904 as required.	each	6000.00	4	24000
MPPWD 2024 (26.27)	MPPWD 2024 (26.27)	Carbon-di-oxide type fire extinguishers				
		Providing and fixing of carbon-di-oxide type fire extinguishers consisting of welded M.S. cylindrical body, squeeze lever discharge valve fitted with pressure indicating gauge internal discharge tube 30 cm long high pressure discharge hose, discharge nozzle, suspension bracket conforming to IS : 15683 finished externally with red enamel paint and fixed to wall with brackets complete with internal charge.				
26.27.3	26.27.3	Capacity 4.5 kg	each	11351.00	30	340530
MPPWD 2024 (26.28)	MPPWD 2024 (26.28)	ABC Power type fire extinguishers				
		Providing and fixing of ABC Power type fire extinguishers consisting of welded M.S. cylindrical body, squeeze lever discharge valve fitted with pressure indicating gauge internal discharge tube 30 cm long high pressure discharge hose, discharge nozzle, suspension bracket. Conforming to IS: 15683 finished externally with red enamel paint fixed to wall with brackets complete with internal charge.				
26.28.3	26.28.3	Capacity 4.0 kg	each	4091.00	30	122730
MPPWD 2024 (26.3)	MPPWD 2024 (26.3)	Single headed hydrant valve				
		Providing and fixing single headed hydrant valve with instantaneous female Gun metal couplings of required dia with cast iron wheel ISI marked conforming to IS 5290 (Type - A) with blank gunmetal cap and chain, adopter as required complete as directed by Engineer-in-Charge.				
26.3.1	26.3.1	63mm dia	each	6700.00	20	134000
					Total Amount	6730641.6
		TOTAL FOR FIRE FIGHTING SYSTEM				₹ 67,30,641.6

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Fire Alarm System							
Item No.	Sub Item	Item Name	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
49.1		2 Loop microprocessor	Supply, installation, testing and commissioning of 2 loop microprocessor based intelligent and electronically addressable, modular, loop capacity of 159 detectors. Fire alarm control panel with 5.7 inch touch screen LCD display, multiple access levels, 10,000 event history logs in the nonvolatile memory (EEPROM). The panel should be modular microprocessor based in nature. The panel shall have 240V AC power supply, automatic battery charger, 24 V, ceiled lead acid maintenance free batteries sufficient for 24 hours normal working and then be capable of operating the system for 30 mints during emergency condition. The panel shall be EN 54/UL certification.	Each	188534.00	1	188534
49.2		4 Loop microprocessor	Supply Installation, testing & commissioning of 4 loop microprocessor based intelligent and electronically addressable, modular, with networking card & printer port- loops panel (expandable) with each loop capacity of 159 detectors. Fire alarm control panel with 5.7 inch touch screen LCD display, multiple access levels 10,000 event history logs in the nonvolatile memory (EEPROM). The panel should be modular microprocessor based in nature and should be expandable from single loop to up to 32 loops. The panel shall have 240V AC power supply, automatic battery charger, 24 V, ceiled lead acid maintenance free batteries sufficient for 24 hours normal working and then be capable of operating the system for 30 minutes during emergency condition. Provision for integration to BMS back net software. The panel shall be EN 54/UL certification.	Each	489527.00	2	979054
49.3		Loop card	Supply installation, testing and commissioning of loop card LSN 0300 A LSN module.	Each	47162.00	3	141486
49.4		Active and networkable repeater panel	Supply, installation, testing and commissioning of active and networkable repeater panel with LCD display complete system function keys for programming and control like system reset, alarm acknowledgement, alarm silence, trouble acknowledgement UL/EN54 certified.	Each	140353.00	3	421059
49.7		Addressable-automatic dual LED smoke detector	Supply, installation, testing and commissioning of addressable- automatic dual LED smoke detector with two integrated light-scattering smoke sensors using LEDs with different colors/wavelengths (blue/infrared) to avoid false alarm & should comply to test fire 1, Inbuilt Isolator, automatic addressing shall be UL/EN54 certified	Each	6300.00	300	1890000
49.10		Indoor addressable manual break glass unit	Supply, installation, testing and commissioning of indoor addressable manual break glass unit (double action) with inbuilt isolators, with flexible network structures & necessary fixing arrangements with key complete as required shall be UL/EN54 certified	Each	5224.00	20	104480
49.11		Outdoor addressable manual break glass unit	Supply, installation, testing and commissioning of outdoor addressable manual break glass unit (double action) with inbuilt isolators, with flexible network structures & necessary fixing arrangements with key complete as required, shall be UL/EN54 certified	Each	10703.00	20	214060
49.16		Addressable control relay module	Supply, installation, testing and commissioning of addressable control relay module with inbuilt isolators & with flexible network structures with a maximum switching current of 1A @ 30V DC, shall be UL/EN54 certified	Each	18038.00	3	54114
49.17		Addressable output module	Supply, installation, testing and commissioning of addressable output module with inbuilt isolators, shall be UL/EN54 certified	Each	20351.00	3	61053
49.18		Interface module	Supply, installation, testing and commissioning of 1output+1input interface module with inbuilt isolator UL/EN54certified	Each	19114.00	3	57342
49.19		Response indicator	Supply, installation, testing and commissioning of response Indicator shall be UL/EN54certified	Each	267.00	300	80100
50.1		Fire panel	Fire panel : Providing, fixing, testing & commissioning microprocessor based main fire alarm panel and indicating panel solid state modular card type pulsar, timer for dual stage alarm facility with indicators, standby battery ,complies to IS 2189:1999.2 x 16 character backlit LCD display lamp test features. Complete with integral power supply and battery charger for SMF battery. NO/NC contacts for both fire and fault. Switches to enable on board operation. LCD and LED Indication for open, short circuit, Isolate, fire in each zone. reset, lamp test, silence, isolate, short, open, fire continuous buzzer for fault and intermittent buzzer for fire battery charger box, operating voltage 220 Volt mains A.C. input/24V D.C. output etc. complete in all respect.				
	50.1.1	2 zone	2 zone fire panel	Each	13665.00	1	13665
	50.1.2	4 zone	4 zone fire panel	Each	22991.00	2	45982
41.28		Fire Survival Cable	Supply of XLPE insulated 1.5 sq. mm. Armoured 2 core FRLSZH fire alarm cable (RED) Fire Survival Cable conforming IS-7098 (Part-1) 1988, 1100 Volt grade, 2/3/4/8/10/12 core ISI marked with copper stranded/solid conductor.	Metre	154.00	4000	616000
15.1		Surface PVC conduit MMS	Supplying and fixing PVC conduit as required confirming to IS 9537 (Part-3), ISI marked along with accessories on surface etc. as required.				
	15.1.2	25 mm. MMS	PVC conduit 25 mm. (MMS)	Metre	67.00	4000	268000
	15.1.3	32 mm. MMS	PVC conduit 32 mm. (MMS)	Metre	102.00	1500	153000

UJJAIN SMART CITY LIMITED

Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain"

Fire Alarm System

Item No.	Sub Item	Item Name	Description of Item	Unit	Rate (in Rs)	Qty.	Amount
						Total Amount	5287929

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Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain"

LIFT/ELEVATORS

Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
44.1		Lift/Elevators	Supply, installation, testing, commissioning, and final testing of automatic lift complete in the shaft well and pit already constructed as per CPWD specification including automatic rescue device (ARD), All standard equipments, accessories and control equipments as per manufacturer's design and as per CPWD specification (Part III LIFTS) on turnkey basis, Conforming to NBC/statutory norms and fulfilling following requirements. (i) Type: Passenger lift. (ii) Load: As specified elsewhere from 4 passengers (272Kg) to 26 passengers (1768Kg) (for each person standard weight 68Kg). (iii) Speed: 1.00 metre/sec. or less as required. (iv) Control: ACV3F, 32bit microprocessor integrated serial communication control system with RMS (remote monitoring system)/BMS (building monitoring system) supporting software. (v) Motor/machine: Permanent magnetic synchronous gearless motor.				
			(vi) Operation: Simplex collective selective with/without lift attendant. (vii) Total rise: About 3 mtrs. (approx) two stops only. (viii) Landings: All floors on same side. (ix) Floors served: G+1. (x) Signals: Digital car position indicator, car travel direction indicator inside car & at all landings, voice annunciator with suitable music shall be provided in the lift car. (xi) Shaft size: As per manufacturer's design and as per CPWD specification (Part III LIFTS), Shaft to be constructed separately. (xii) Guide rail: As per manufacturer's specification. (xiii) Lift & car size: As per manufacturer's design and as per CPWD specification (Part III LIFTS). (xiv) Car entrance: As per manufacturer's design and as per CPWD specification (Part III LIFTS). (xv) Landing entrance: As per manufacturer's design and as per CPWD specification (Part III LIFTS).				
			(xvi) Car door: S.S. (stainless steel) hairline finish centre/telescopic opening door with vision panel. (xvii) Landing door: S.S. (stainless steel) hairline finish centre/telescopic opening door with vision panel. (xviii) Door operation: Automatic electric power operated door, full height infrared curtain with multiple criss/cross light beams. (xix) Car interior: S.S. (stainless steel) panel with hair line finish on all sides. (xx) Car floor: Anti skid PVC flooring on heavy duty M S (mild steel) platform. (xxi) Car ceiling & lighting: S. S. (stainless steel) finish with aesthetic appearance with LED ceiling lights (xxii) Car ventilation: Pressure fan/blower fan (car fan with automatic sleep timer shall be provided). (xxiii) Emergency lighting in car: Battery operated emergency lighting in the lift car. (xxiv) Intercom system: Battery operated intercom system in lift car, machine room and ground				
			floor/control room. (xxv) Emergencyalarm: Battery operated alarm bell system in lift car & control room / ground floor. (xxvi) Position of machine room: Directly above the hoist-way. (xxvii) Electric power supply: AC 415 V, 3 phases 50 Hz & AC 230 V 1phase 50Hz terminated in machine room. (xxviii) Fire man switch : Fire man switch at machine room/terminal landing (xxix) All car panel buttons and all floor switches must be with Braille language as per lift act. (xxx) Audio visual indication in the lift car showing overloading shall be provided such that doors keep open till excess load is removed. (xxxi) Spring buffer/hydraulic buffer shall be provided (xxxii) Mechanical over speed governor, door key holes in the floor doors shall be provided.				

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LIFT/ELEVATORS

Item No.	Sub Item No.	Item Name	Description of Item	Unit	Rate (in Rs)	Qty	Amount
			(xxxiii) Lift machine hoisting arrangement in the lift machine room and monkey ladder for lift pit should be provided by the lift agency, along with the other steel structure works, foundations for the machines etc. (xxxiv) In the hoist way fascia plate shall be provided. (xxxv) Permanent wiring in lift machine room and lift well with proper no. of light points, with fixtures, exhaust fan, plug points and 3 phase 440V power supply shall be made in lift shaft by the department, machine room or at desired level. (xxxvi) Car top safety barricade shall be provided. (xxxvii) ARD (automatic rescue device): Solid state inbuilt automatic rescue device (ARD) automatically rescues passengers trapped in the lift car in between floors in the event of power failure. Automatic operation and immediate action in the event of mains failure, capable of moving the lift to the nearest landing, opens the automatic door of				
			the lift car and floor. Sealed maintenance free battery backup with automatic charging unit and auto changeover device on mains failure.				
	44.1.4	10 Passenger	10 Passenger (680Kg.)	Each	1530000	1	1530000
				Total			1530000

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Survey, design, engineering, procurement, construction, installation, testing, commissioning, operation & maintenance, and transfer of the Integrated Development & Conservation of Maharishi Sandipani Ashram, Ujjain"											
STATUE, DWAR, STONE INLAY AND 3D ART & PAINTING WORKS											
Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount					
A Installations in Brass											
a 108 ft height Tall Installation											
1	NON SOR	Designing, sculpting, engineering, fabrication, supply, transportation and installation of a 108 ft high statue of Lord Krishna in architectural-grade metal, as per approved design, including 3D modelling and scaled physical miniatures (minimum 4 ft and 8 ft) for approvals. The scope includes complete structural design and analysis (internal framework and cladding) vetted from a reputed/approved institution, along with preparation of fabrication drawings. The statue shall comprise segmented metal panels of suitable thickness (indicatively 6-12 mm or as per design), in bronze or equivalent approved alloy, with required sculptural detailing, finishing and joint treatment. The work includes fabrication and erection of internal structural steel framework conforming to relevant IS standards, with corrosion protection, approved surface finish/patina, factory fabrication and trial assembly (as required), transportation and complete on-site erection including alignment, fixing and finishing. The item also includes lightning protection, earthing, testing, inspection and submission of as-built drawings and structural stability certificates. The rate shall be inclusive of all materials, labour, tools & plants, machinery, design, approvals, transportation (including specialised logistics, if any), safety measures, taxes, duties and all incidental works required to complete the work in all respects as per approved design and directions of the Engineer-in-Charge.	Job	1.00	₹	-					
b 40 ft height Tall Installation											
2	NON SOR	Providing, fabricating, supplying, transporting and installing a 40 ft high statue of Lord Krishna (with flute) in architectural-grade metal, as per approved design, including 3D modelling and preparation of detailed fabrication drawings. The scope includes complete structural design and analysis of the statue system (internal framework and cladding), vetted from a reputed/approved institution. The statue shall comprise segmented metal panels of suitable thickness (indicatively 6-12 mm or as per design requirements), using bronze or equivalent approved alloy, with complete sculptural detailing, finishing and joint treatment to achieve the desired aesthetics and durability. The work includes fabrication and erection of an internal structural steel framework conforming to relevant IS standards, with adequate corrosion protection system and approved surface finish/patina. The item also includes factory fabrication and trial assembly (as required), safe packing, transportation, and complete on-site erection including alignment, fixing, joint sealing and final finishing. Provision of lightning protection, earthing, testing, inspection, and submission of as-built drawings and structural stability certificates are included. The rate shall be inclusive of all materials, labour, tools & plants, machinery, design, approvals, transportation, safety measures, taxes, duties and all incidental works required to complete the work in all respects as per approved design and directions of the Engineer-in-Charge.	Job	1.00	₹	-					
c 20ft height Tall Installation											
3	NON SOR	Providing, fabricating, supplying, transporting and installing a 20 ft high statue of Lord Krishna (with Sudarshana Chakra) in architectural-grade metal, as per approved design, including 3D modelling and preparation of detailed fabrication drawings. The scope includes complete structural design and analysis of the statue system (internal framework and cladding), vetted from a reputed/approved institution. The statue shall comprise segmented metal panels of suitable thickness (indicatively 6-12 mm or as per design requirements), using bronze or equivalent approved alloy, with complete sculptural detailing, finishing and joint treatment to achieve the desired aesthetics and durability. The work includes fabrication and erection of an internal structural steel framework conforming to relevant IS standards, with adequate corrosion protection system and approved surface finish/patina. The item also includes factory fabrication and trial assembly (as required), safe packing, transportation, and complete on-site erection including alignment, fixing, joint sealing and final finishing. Provision of lightning protection, earthing, testing, inspection, and submission of as-built drawings and structural stability certificates are included. The rate shall be inclusive of all materials, labour, tools & plants, machinery, design, approvals, transportation, safety measures, taxes, duties and all incidental works required to complete the work in all respects as per approved design and directions of the Engineer-in-Charge.	Job	1.00	₹	-					
						Total	₹	-			
B Installations in Stone											
a 8 ft height Tall Installation											
4	NON SOR	Providing, carving, supplying and installing a 8 ft high statue of Sandipani Rishi in seated posture, executed in natural sandstone as per approved design, drawings, and artistic references. The work includes conceptual artwork development, preparation of 2D/3D sculpting models, clay/POP maquettes for approval, and detailed carving drawings indicating posture, proportions, drapery, facial expressions, and ornamentation. The statues shall be carved from single or multiple blocks of high-quality natural sandstone (as specified—Dholpur / Jaisalmer / Agra / Bansī Paharpur, etc.) with uniform grain, free from cracks, veins or discoloration. Minimum block thickness shall be suitable to achieve full sculptural depth, ensuring structural integrity. Carving shall be executed using CNC rough-cutting followed by hand-finishing by skilled artisans, achieving accurate human proportions, anatomical correctness, facial detailing, hair/beard texture, garment folds, symbolic features, and expressions appropriate to Gurukul narrative. Student statues shall be carved to the correct scaled height matching the 8 ft Rishi statue, maintaining visual harmony and composition. Surface finishing shall include fine chiselling, smoothing, edge refinement and natural stone polish as per approved sample. The item includes fabrication and installation of a stone or RCC pedestal (height, size, and design as specified), finished in matching sandstone cladding with mouldings, corner detailing, inscriptions (if any), and proper anchoring arrangements for statues. All statues shall be installed using SS dowels, anchor bolts, epoxy grouts, and anti-vibration bedding to ensure stability and long-term performance. Work includes complete surface preparation, alignment, joint filling, sealing, and final finishing of the pedestal and sculptures. Scope also includes transportation of stone blocks and finished sculptures, loading/unloading, protective packing, scaffolding, lifting equipment, site preparation, positioning of statues, cleaning, polishing, and application of breathable stone preservative/sealant. All works shall be executed with strict adherence to artistic quality, proportional accuracy, safety, and site conditions.	Job	1.00							
5	NON SOR	Providing, carving, supplying and installing a 4 ft high statue of gurukul students in seated posture, executed in natural sandstone as per approved design, drawings, and artistic references. The work includes conceptual artwork development, preparation of 2D/3D sculpting models, clay/POP maquettes for approval, and detailed carving drawings indicating posture, proportions, drapery, facial expressions, and ornamentation. The statues shall be carved from single or multiple blocks of high-quality natural sandstone (as specified—Dholpur / Jaisalmer / Agra / Bansī Paharpur, etc.) with uniform grain, free from cracks, veins or discoloration. Minimum block thickness shall be suitable to achieve full sculptural depth, ensuring structural integrity. Carving shall be executed using CNC rough-cutting followed by hand-finishing by skilled artisans, achieving accurate human proportions, anatomical correctness, facial detailing, hair/beard texture, garment folds, symbolic features, and expressions appropriate to Gurukul narrative. Student statues shall be carved to the correct scaled height matching the 8 ft Rishi statue, maintaining visual harmony and composition. Surface finishing shall include fine chiselling, smoothing, edge refinement and natural stone polish as per approved sample. Scope also includes transportation of stone blocks and finished sculptures, loading/unloading, protective packing, scaffolding, lifting equipment, site preparation, positioning of statues, cleaning, polishing, and application of breathable stone preservative/sealant. All works shall be executed with strict adherence to artistic quality, proportional accuracy, safety, and site conditions.	Job	8.00							
						Total	₹	-			
C Installations in GFRc											
a 8 ft height Tall Installation											

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STATUE, DWAR, STONE INLAY AND 3D ART & PAINTING WORKS									
Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount			
6	NON SOR	Providing, fabricating, supplying, transporting and installing a complete 8-ft tall thematic statue of "Krishna and Sudama" executed in premium-grade Glass Fibre Reinforced Concrete (GFRC), including preparation of detailed 3D sculptural model, scaling, refinement and approval, fabrication of high-resolution multi-part FRP/GFRP moulds with gel-coat inner surface and stiffened backing supports, casting of the statue using GFRC of minimum 60-70 MPa compressive strength comprising white/grey cement, silica sand, additives and alkali-resistant glass fibres (zirconia >16%) with face-coat and fibre-reinforced back-coat achieving a uniform shell thickness of 25-35 mm, forming all fine details, textures, folds and ornaments as per approved design; providing and fixing a complete internal structural framework made of MS/GI square sections (50x50x3 mm, 40x40x3 mm, and 32 mm pipes) including fabrication, welding, base plate (10-12 mm thick), bracing, anti-rust treatment and epoxy primer coating for long-term stability; assembling and jointing all GFRC parts over the internal frame using stainless steel fasteners, chemical anchors and GFRC putty to achieve seamless joints and monolithic appearance, machine sanding, hand finishing and sculptural detailing; applying exterior-grade finishing including stone/metallic texture, hand-painted detailing and two coats of UV-resistant PU protective coating; transporting the statue components to site with protective packing, providing all tools, tackles, skilled labour, scaffolding and lifting equipment, installing the statue on the RCC/MS foundation pedestal with approved anchor bolts, non-shrink grout and alignment checks, ensuring complete structural stability, vertically, final polishing, touch-ups, cleaning and making good the entire work, all complete as per design, specification and directions of the Engineer-in-Charge.	Job	1.00		₹	-		
	a	8 ft height Tall Installation							
7	NON SOR	Providing, fabricating, supplying, transporting and installing a complete 8-ft tall thematic statue of "Krishna and Balram" executed in premium-grade Glass Fibre Reinforced Concrete (GFRC), including preparation of detailed 3D sculptural model, scaling, refinement and approval, fabrication of high-resolution multi-part FRP/GFRP moulds with gel-coat inner surface and stiffened backing supports, casting of the statue using GFRC of minimum 60-70 MPa compressive strength comprising white/grey cement, silica sand, additives and alkali-resistant glass fibres (zirconia >16%) with face-coat and fibre-reinforced back-coat achieving a uniform shell thickness of 25-35 mm, forming all fine details, textures, folds and ornaments as per approved design; providing and fixing a complete internal structural framework made of MS/GI square sections (50x50x3 mm, 40x40x3 mm, and 32 mm pipes) including fabrication, welding, base plate (10-12 mm thick), bracing, anti-rust treatment and epoxy primer coating for long-term stability; assembling and jointing all GFRC parts over the internal frame using stainless steel fasteners, chemical anchors and GFRC putty to achieve seamless joints and monolithic appearance, machine sanding, hand finishing and sculptural detailing; applying exterior-grade finishing including stone/metallic texture, hand-painted detailing and two coats of UV-resistant PU protective coating; transporting the statue components to site with protective packing, providing all tools, tackles, skilled labour, scaffolding and lifting equipment, installing the statue on the RCC/MS foundation pedestal with approved anchor bolts, non-shrink grout and alignment checks, ensuring complete structural stability, vertically, final polishing, touch-ups, cleaning and making good the entire work, all complete as per design, specification and directions of the Engineer-in-Charge.	Job	1.00		₹	-		
	a	6 ft height Tall Installation							
8	NON SOR	Providing, fabricating, supplying, transporting and installing a complete 6-ft tall thematic statue of "Krishna and Yashoda maa in seating posture" executed in premium-grade Glass Fibre Reinforced Concrete (GFRC), including preparation of detailed 3D sculptural model, scaling, refinement and approval, fabrication of high-resolution multi-part FRP/GFRP moulds with gel-coat inner surface and stiffened backing supports, casting of the statue using GFRC of minimum 60-70 MPa compressive strength comprising white/grey cement, silica sand, additives and alkali-resistant glass fibres (zirconia >16%) with face-coat and fibre-reinforced back-coat achieving a uniform shell thickness of 25-35 mm, forming all fine details, textures, folds and ornaments as per approved design; providing and fixing a complete internal structural framework made of MS/GI square sections (50x50x3 mm, 40x40x3 mm, and 32 mm pipes) including fabrication, welding, base plate (10-12 mm thick), bracing, anti-rust treatment and epoxy primer coating for long-term stability; assembling and jointing all GFRC parts over the internal frame using stainless steel fasteners, chemical anchors and GFRC putty to achieve seamless joints and monolithic appearance, machine sanding, hand finishing and sculptural detailing; applying exterior-grade finishing including stone/metallic texture, hand-painted detailing and two coats of UV-resistant PU protective coating; transporting the statue components to site with protective packing, providing all tools, tackles, skilled labour, scaffolding and lifting equipment, installing the statue on the RCC/MS foundation pedestal with approved anchor bolts, non-shrink grout and alignment checks, ensuring complete structural stability, vertically, final polishing, touch-ups, cleaning and making good the entire work, all complete as per design, specification and directions of the Engineer-in-Charge.	Job	1.00		₹	-		
9	NON SOR	Providing, fabricating, supplying, transporting and installing GFRC gates of overall size approx. 12 mt in height and 7 mt in width with a central arched opening of 3 mt clear width, executed in minimum 40 mm thick high-strength Glass Fibre Reinforced Concrete (GFRC), including preparation of detailed moulds, carving and sculpting of theme-based murals, motifs and façade ornamentation as per approved design; fabrication of high-resolution multi-part moulds with gel-coat lining and stiffened supports; casting of GFRC panels using high-grade cement matrix with alkali-resistant glass fibres (zirconia content >16%), silica sand, polymer additives and plasticizers, ensuring uniform thickness, sharp detailing and controlled curing; providing an internal SS/GI structural framework using IS-grade square hollow sections (minimum 40x40x3 mm or as required), including fabrication of frame members, stiffeners, anchor plates, welding, rust-preventive treatment and epoxy coating; assembling GFRC panels on the structural frame using stainless steel connectors, chemical anchors and GFRC putty for seamless integration of joints; surface finishing with approved texture/colour scheme, including primer, exterior-grade paint and UV-resistant PU/sealer coating; transportation to site with protective packing, lifting and erection of gate components, fixing on RCC/structural foundation with anchor bolts, grouting, alignment checks, touch-ups, cleaning and handling over the complete installation, including all labour, materials, tools, tackles and incidental works required to execute the GFRC gate in all respects as per design and engineer-in-charge.	Job	4.00		₹	-		
								Total	₹ -
	d	Painting work							
	a	stone inlay work around the corridor							
10	NON SOR	Providing, preparing, carving, inlaying and finishing thematic stone inlay work on hard sandstone surfaces, depicting storyline figures, scenes and symbolic motifs related to Shri Krishna and the Sandipani Ashram narrative, including complete surface preparation, cleaning, marking and engraving of recess profiles in sandstone to a uniform depth of 30 mm for receiving the inlay stones; supplying, carving and shaping contrasting natural stones (such as dholpur, Jaisalmer,) into required figurative forms, motifs, line-art elements and narrative patterns, executed through hand chiselling, contour shaping, sanding and fine detailing; fixing and embedding the 30 mm thick carved stone inlay pieces into the engraved sandstone recess using approved stone adhesives or lime-based mortar, ensuring flush finish, tight joints, correct alignment and seamless integration with the parent stone; carrying out edge refinement, surface chiselling, texture correction and polishing as required to achieve a unified aesthetic; followed by washing and application of approved clear breathable stone sealer or PU-based exterior protective coating to enhance colour, resist dust, protect against moisture ingress and ensure long-term durability; including all materials, tools, labour, templates, artwork preparation, scaffolding, finishing, curing and incidental works required to complete the stone inlay work in all respects as per approved design and direction of the Engineer-in-Charge.	Sqft	1200.00		₹	-		

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STATUE, DWAR, STONE INLAY AND 3D ART & PAINTING WORKS									
Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount			
	NSR	Inground RGBW	Supply and fixing of recessed ground mounted deep 30w LED uplighter fixture with Honeycomb Louver, protected Uno PATHFINDER IP66 RGBW with DMX Driver to carry DMX 512 signal, 10deg-24deg as required. stainless steel body hard anodized aluminium finishes stainless steel & IK rating 08. Installation housing box power supply cables 35 cm NS20N PCP 2x0.5 mm2 power supply 24V DC power consumption max 30 Watt lumen output 240-680lm working temperature-20°C +45°C IP rating IP66 (not for permanent immersion) insulation class III Weight upto 500gm. and delivers 90CRI for excellent colour rendering. PATHFINDER is smart shield protected against polarity inversion, an integrated super fast diode prevents accidental damage to the luminaire during installation on due to reverse polarity. Smart shield protects against 'hot-plugging'. Fully integrated spike-reduce on protects the constant-current driver and prevents damage to the LED die surface. With housing	Each	20		0		
	NSR	GOBO Projector	SITC of Pole Mounted dynamic Image Gobo Projector: Material - Aluminium die-cast, Protection / Strength - The fixture shall be minimum IP66 compliant & with a mechanical strength of minimum IK07, Finish -As Black/ White. Electrical Parameters: The fixture shall have an in-built LED light source with non-integral control gear/system capable with control from DMX 512 protocol. Main controller DMX, Sub-Controllers, 12v 16 port DMX, Addressing Kit, DMX Amplifiers, Splitters, Boosters, Jumper and Leader Cables, etc. for Controlling Media Pixels is also in scope of the vendor as a complete system. The electronic power supply shall have protection against overvoltage /short circuit /power surge. THD < 7-10 Percent, PF > 0.9, Complete operation over a centralized DMX Controller or individually controlled by hand-held remote. International Electrotechnical Commission (IEC) standard IEC 60598, Indian standards - IS 10322, IS 16103:2012 (Parts 1 & 2), IS 16105: 2012, IS 16106: 2012, IS 16108: 2012. Mandatory BIS certification. Optical and Lighting Parameters: The fixture shall be capable of delivering between 7500 lumens (system lumens) in 3000K. (System efficacy ≥ 65lm/watt), Color Rendering Index ≥ 85, SDCM ≤ 4, The fixture shall be adjustable beam within the range of 15-30 degrees. Zoom able optics enabling to focus projection basis distance of projection. Zoomable optics enabling to focus projection basis distance of projection. Zoom from 15-30 deg to remove distortion if any. The Flood / Gobo should have a capacity of storing Minimum 4 Gobos which can be projected in repeated sequence or as per recall/ program of the software. Should have capability to control the speed of rotation as well as make it static by stopping rotation whenever required. Rated life of the fixture with control gear should be > 30,000 operation hours. The LED shall be compliant to LM-79 and LM-80 standards with published Type Test Reports Note: This includes all the required hardware for the successful installation and operation of the luminaire. (All the technical parameters of the luminaire need approval from the architect / lighting designer)	Each	10		0		
	NSR	pixel	FAÇADE LIGHTING SITC of Round Shape RGBW Pixel Light (system) Physical Parameters: The Fixture shall be in diameter ≤ 55 mm and height ≤ 20 mm, Material - UV resistant polycarbonate body and outer Cover shall be made of PC, Protection / Strength - The fixture shall be minimum IP67 and ANSI 3G Vibration test compliant & with a mechanical strength of minimum IK06, The fixtures shall be in-built with IP67 male-female connectors, Finish - Standard White 9003 Color, Colour resolution - 16-Bit Grayscale, Gamma 2.0, Pixel Pitch: 300mm Electrical Parameters: The fixture shall have an in-built RGBW LED light source(4 addresses per pixel) with non integral control gear/system capable with control from DMX protocol . Main controller DMX, Sub-Controllers, 12v 16 port DMX, Addressing Kit, DMX Amplifiers, Splitters, Boosters, Jumper and Leader Cables, etc. for Controlling Media Pixels is also in scope of the vendor as a complete system. The electronic power supply/ Controls shall have protection against overvoltage /short circuit /power surge. THD < 7-10 Percent, PF > 0.9, Non-Dimmable, International Electrotechnical Commission (IEC) standard IEC 60598, Indian standards - IS 10322, IS 16103:2012 (Parts 1 & 2), IS 16105: 2012, IS 16106: 2012, IS 16108: 2012. Mandatory BIS certification. Optical and Lighting Parameters: The Pixel shall ≥ 2W in RGBW(W4000K) with lumen efficacy of 37.6lm/W, Color Rendering Index ≥ 80, SDCM ≤ 5. The fixture shall deliver symmetrical optics FWHM of 100-110 degrees, Rated life of the fixture with control gear should be > 50,000 operation hours. The LED shall be compliant to LM-79 and LM-80 standards with published Type Test Reports Note: This includes all the required hardware for the successful installation and operation of the luminaire. (All the technical parameters of the luminaire need approval from the architect / lighting designer)	Each	1000		0		
	NSR	Trick light	SITC of Round Surface Mounted Trick Light Material - Aluminium die-cast, Protection / Strength - The fixture shall be minimum IP66 compliant & with a mechanical strength of minimum IK07, The fixtures shall be installed with IP67 connectors. Finish - Rust Brown and powder coated Electrical Parameters: The fixture shall have an in-built LED light source with an integral control gear capable of running at a line voltage of 200-250 VAC. The electronic power supply shall have protection against overvoltage /short circuit /power surge. THD < 7-10 Percent, PF > 0.9, Non-Dimmable, International Electrotechnical Commission (IEC) standard IEC 60598, Indian standards - IS 10322, IS 16103:2012 (Parts 1 & 2), IS 16105: 2012, IS 16106: 2012, IS 16108: 2012. Mandatory BIS certification. Optical and Lighting Parameters: The fixture shall be capable to deliver between 60 lumens (system lumens) in 2700K. (System efficacy ≥ 25lm/watt), Color Rendering Index ≥ 85, SDCM ≤ 4, The fixture shall be with optics of 5° x180° degree. Rated life of the fixture with control gear should be > 50,000 operation hours. The LED shall be compliant to LM-79 and LM-80 standards with published Type Test Reports Note: This includes all the required hardware for the successful installation and operation of the luminaire. (All the technical parameters of the luminaire need approval from the architect / lighting designer)	Each	40		0		
	NSR	Decorative Indoor Ring Light	SITC-LED Pendant Ring 600 dia 40W Efficacy: 90lm/Lumen: 1800 CRI >80 Color Temperature: 3000K SDCM 3 Life Time: L70 50,000Hrs 230V Light Throw: Direct light emission Optics: Prismatic Diffuser Finish: White/ GOLD/ Bronze Control Gear: Electronic Control Protection Class: IIP 20 - Note: This includes all the required hardware for the successful installation and operation of the luminaire. (All the technical parameters of the luminaire need approval from the architect / lighting designer)	Each	10		0		
	NSR	Decorative Indoor Disc Light	SITC-Pendant luminaire Disk type with 530 dia with HPE (High-Performance Efficiency) LED (Light Emitting Diode) system power: 45W luminous flux of luminaire 4500lm, Colour temperature of 3000K, Warm white, CRI>80, 230V constant current driver, 70 Percent of luminous flux after 50,000 operating hours; Energy efficient LEDs, Direct light emission, luminaire housing in aluminium, Polyester powder Grey coloured coat applied over a 5-stage pre-treatment, pre-wired backplate luminaire, Prismatic diffuser for homogenous light distribution, ZHL5 (ZERO HALOGEN LOW SMOKE) internal wiring, Electronic control gear, Pendant tube with a ball joint, for self-leveling (v/20deg). Protection class I, IP20. Note: This includes all the required hardware for the successful installation and operation of the luminaire. (All the technical parameters of the luminaire need approval from the architect / lighting designer)	Each	10		0		
	NSR	Master Controller DMX	Supply, installation, testing and commissioning of main DMX Controller for controlling RGBW luminaires for powerful show storage and work as playback device capable of delivering light with each show to installations with up to 8 DMX512 universes, complete all as specified and directed by the engineer-in-charge.	Each	1		0		
	NSR	Programming Charges	Complete Programming of RGBW DMX Based Fixtures and Scenes as required by Executive Engineer	Each	1		0		
	NSR	Chandelier	SITC of Traditional Chandelier with K9 Crystals and minimum 1500mm dia and 1500 mm Height without hanging unit. It should have minimum of 120 e14 lamps holders in it. It should be hanged by SS Chain covered by suitable cloth. Lamp should be of 4w Led of reputed Make. Finish should have a warranty of atleast 5 years from manufacturer and any color damage or shade variation of glass shall be replaced by contractor during the DLP period without any cost to client. It should have not weight less than 90 kgs	Each	0		0		
	NSR	Chandelier	SITC of Traditional Chandelier with K9 Crystals and minimum 1000mm dia and 1200 mm Height without hanging unit. It should have minimum of 60 e14 lamps holders in it. It should be hanged by SS Chain covered by suitable cloth. Lamp should be of 4w Led of reputed Make. Finish should have a warranty of atleast 5 years from manufacturer and any color damage or shade variation of glass shall be replaced by contractor during the DLP period without any cost to client. It should have not weight less than 30 kgs.	Each	4		0		

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STATUE, DWAR, STONE INLAY AND 3D ART & PAINTING WORKS									
Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount			
	NSR	Decorative Metal Pendant	Each	40		0			
	NSR	Track Light	Each	50		0			
	NSR	Metif Pole Bracket	Each	100					
E Access Control System									
Category	Installation	SOR Details	Item	Description	Unit	Quantity	Unit Cost	Amount	
Security	General	NON-SOR	BAGGAGE SCANNER	Supply, Installation, Testing & Commissioning of X-ray Baggage Inspection System(X-BIS) equipment including control table as per technical specification. Tanned Size: 640(W)*500(H) mm, Conveyor Speed: 0.22m/s, Conveyor Max Load:170 kg, Leakage radiation: <math> <= 0.1 \mu\text{Gy/h}</math>, Single inspection dosage: <math> < 1.0 \text{Gy/h}</math>, Wire Resolution 40AWG, Steel Penetration: 36mm, Film Safety: For ISO 1600, X-Ray having following details: Beam Direction: Upward; Tube Current: 0.6mA; Anode voltage: 160KV; X-ray divergence angle: 80 °; Cooling: Sealed oil bath with forced air; Sealed oil bath with forced air/100%; Detector: L-shaped Array. Operating environment: Power Requirement: 220V AC ($\pm 10\%$) 0-3Hz; Power consumption: 1.0KW(Max); Noise level: <math> < 58 \text{dB}</math>, Spatial Resolution: 1.0mm Horizontal and Vertical Operating temperature/humidity: 0 deg.C. - 45 deg.C /20% - 95% (Non-condensing); Storage temperature/humidity: -20degC - 60degC/20% - 95% (Non-condensing).	Nos.	1			
Security	General	NON-SOR	DFMD	Supply, Installation, Testing & Commissioning of 9-Zone Door Frame Metal Detector (DFMD) equipment of external size 870x2165x278mm (WxHxD) and internal size 720x2017x278mm (WxHxD), working on electromagnetic principles, made of ABS raw materials, frequency 0-100 Hz, Working humidity : 99%, non-condensing, Working temperature : -20°C-65°C, Input: AC 100 V-240 V/ Frequency 50HZ-60HZ, IP rating : 54 (Dust proof coating), Sensitivity adjustable : 0-400, Volume adjustable : 0-50, Alarm volume : 0-3 sec, Alarm tones : 15 different tone, Detection : Ferrous metals <math> < 75 \text{gm}</math> as per technical specification.	Nos.	2			
Security	General	NON-SOR	FRISKING BOOTH	Provision and fixing of frisking booth including but not limited to canopy, female frisking booth, cloak room shelves, frisking table, revolving chairs, frisking pedestals etc. Item to include all material, labour, scaffolding and carriage in all leads, scaffolding and lifts complete as per satisfaction of engineer in charge.	Nos.	1			
Security	General	NON-SOR	HHMD	Supply, Installation, Testing & Commissioning of Hand-Held Metal Detector (HHMD) equipment as per technical specification. Working frequency: 0-25 KHz; Net weight: -400 gms; Power supply: Standard 6F22/15FH; 9V battery or rechargeable battery; Temperature: -15°C to +55°C; Detection Range: Pin : 25-70mm ; Type 64 pistol: 0-350mm; Six inch dagger 200-300mm; 20mm diameter steel balls 150mm; One ₹ coin 120-180 mm ; TF card, staples, 8-pin chip 10-40 mm. Having Two alarm modes: audible and vibration mode, high-brightness LED light indicator. Rugged, impact, free-fall drop height of 2 meters without damage. Light weight, large detection area fast detection speed. Continuous alarm function with low sound or vibration at the same time. After installing the	Nos.	20			
Ticketing	General	NON-SOR	Ticketing Platform Onboarding	Ticketing Platform Onboarding & Account Setup (BookMyShow / Paytm Insider) Vendor onboarding, account creation, KYC, event/venue listing, Scheduled Booking System Development + (Backend Database).	Lot	1			
Ticketing	General	NON-SOR	Counter System	Payment Integration, API Integration with Ticketing Platform. Additionally 2% Platform Fee + 2.5% to 5% of ticket sales (based on the payment medium) for RazorPay	Nos.	4			
F FIRE FIGHTING BOQ									
	NON-SOR			Providing and fixing of flexible Connection/Rubber Bellow.	each	2.0			
			a)	200MM	each	4.0			
			b)	150MM	each	4.0			
			a)	100MM	each	4.0			
			b)	80MM	each	2.0			
	NON-SOR			Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :	each	6.0			
			a)	32 mm dia	each	2.0			
	NON-SOR			Providing and fixing Float Valve :	each	2.0			
			a)	25 mm dia	each	3.0			
	NON-SOR			Providing fixing, including testing and commissioning the following size of flanged type sluice valve of cast iron body and bronze/ gun metal seat conforming to class PN 16 of IS 14846/IS 780 complete with bolts and nuts, rubber insertions etc. as per specification complete as required.	each	4.0			
			a)	250MM	each	4.0			
	NON-SOR			Supply installation of Tank sleeve mounted suction strainer with The filter media is a woven stainless mesh of pleated construction supported on the inside by a perforated steel tube. The pleats provide a generous area of filtration in relation to the overall size. The pleated element and perforated steel tube are bonded to the end caps with epoxy resin. One end blind and the other is threaded. Fluid flow is radially inwards through the pleated element so that contaminants are deposited on the outside of the strainer where they may be removed easily by immersing in cleaning solution. The Strainer is mounted with SS Flange bolted with SS 304 Bolt inside tank to avoid rusting. The strainer is made up of Perforated SS 304 Sheet the thickness of sheet will not be less the 16 Gauge with 40-45% Perforation and internally mounted fine SS wiremesh 140- 262 micron.	each	4.0			
			a)	Suction Strainer Sleeve and SS flanged coupled 250 MM Diameter	each	8.0			
	NON-SOR			SITC of Combination Air Release Valve for fire water mains, ductile iron/SS body with large-orifice and small-orifice mechanism, flanged ends ANSI Class 150, epoxy-coated internal/external. Installed at pipeline high points and at split-case fire pump casing (as applicable). Includes isolation sluice/butterfly valve, bypass, fittings, testing, and commissioning per NFPA 20	each	4.0			
			a)	25 mm dia	each	4.0			
			b)	32 mm dia	each				

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			Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount
				NON-SOR	Providing and fixing of Fire Extinguisher Clean Agent HCFC 123 Providing 6Kg Stored Pressure Type, Pressure Gauge, Gross Weight 94kg, empty weight 3.4 kg Can Height 480MM, Diameter 160 MM, Discharge Time less than 13 Secs, Controllable discharge mechanism (Squeeze grip with easy snap safety seal), Range minimum 4 Meters, applicable on Class A,B,C and electrically started Fire, A Rating 2A, B Rating 21B Can Construction: Deep drawn & CO, Mig welded, Valve Construction: Forging & Machining, Internal Coating of Can : Epoxy Powder coating, External Coating of Can : Epoxy Polyester Powder coating, Sheet metal thickness: 1.60MM, Helium Leak Detection Tested, EN Approved, 5 years warranty with instalert system with Superior quality EPDM Rubber Hosepipe etc., complete	each	4.0		
				NON-SOR	Supply, installation, testing and commissioning of Fire Axe of approved make, conforming to IS: 926 (or equivalent standard), with insulated handle and suitable mounting arrangement inside the Fire Box / Fire Station cabinet, complete as required.	each	15.0		
				G	Public Address & Audio Vedio System				
Area Name	Area Name	Applicat ion Name	Applicat ion Type	Type	Item Description	Unit	Qty		
Zone 1	Visitor Entry, Service Area, All Pathway	BGM	BGM	Outdoor Pole Mounted Speaker	Supply, installation, testing and commissioning of Full range 4-inch or better IP55 rated surface mounted music loudspeaker. The louspeaker shall meet the following performance criteria: Frequency range (-10dB) of 70Hz to 19kHz; Power handling of 160 Watt peak; Nominal dispersion of 90°(H) x 80°(V); Sensitivity of 87 dB SPL and Max SPL of 109 dB SPL peak or better; Nominal impedance of 8 ohms and Integral multi-tap Transformer with selectable tap settings of 5/10/20/40W@70V & 100V. The loudspeaker system shall be enclosed in engineered-plastics and a powder-coated steel grille. UL-1480 rated and EN54-24 compliant for Life safety/VA applicatons.	Each	30		
					Supply, installation, testing and commissioning of Custom Fabricated bracket for Pole Mounting of speaker	Each	30		
				Power Amplifier LMT Based	SITC of Class D configurable amplifier with a digital signal processing architecture running at 48 kHz / 24 bit .The Amplifier shall have 600 watts output power asymmetricly distributed across 4 output channels with selectable 4/8ohms, 70/100 Volt or mixed use operation.The amplifier shall have four analog and dante channels ; Frequency Response : 20Hz - 20kHz ; S/N Ratio > 100db and THD < 0.04% at rated output. Built in DSP for Matrix routing, Speaker EQs, delays etc. Phoenix Input and output terminals,Built in DSP for Matrix routing, Speaker EQs,PEQ ,bandpass, delays etc	Each	3		
Zone 2	Introduction to Sandipani Aashram	Sandipani Statue	Informative, BGM	Outdoor Floor Mounted - Landscape	Supply, installation, testing and commissioning of Full-range environmental loudspeaker with one downward firing 4.5-inch (114 mm) IP55-rated advance composite environmental full-range driver for in-ground or above-ground mounting The louspeaker shall meet the following performance criteria: Frequency range (-10dB) of 60Hz to 15kHz or better; Power handling of 64 Watt peak or more; Nominal dispersion of 360° (H) X 50° (V) or better; Sensitivity of 87 dB SPL or more and Max SPL of 106 dB SPL peak or better; Nominal impedance of 8 ohms and Integral multi-tap Transformer with selectable tap settings of 10/20/40/80 watts@70V & 100V. The loudspeaker system shall be enclosed in Glass-reinforced polypropylene, textured.	Each	4		
				Near Statue - Mount on tree for narative	Supply, installation, testing and commissioning of IP55 Rated for Indoor and Outdoor installations, Full range drivers (8 or better) in an articulated Array design. Minimum eight 4.5" full-range cone transducers or better. Frequency Range (-10db) of 52 Hz - 15 kHz or better; Continuous power (AES) : 300W & Peak Power (AES) : 1200W @ 8 Ohms or better; Nominal dispersion of 120H X 100V or better; Sensitivity of 91 dB or better; Max SPL Peak of 121 dB or better; Powder coated steel grille.	Each	4		
				Power Amplifier LMT Based	SITC of Class D configurable amplifier with a digital signal processing architecture running at 48 kHz / 24 bit .The Amplifier shall have 400 watts output power asymmetricly distributed across 4 output channels with selectable 4/8ohms, 70/100 Volt or mixed use operation.The amplifier shall have four analog and dante channels ; Frequency Response : 20Hz - 20kHz ; S/N Ratio > 100db and THD < 0.04% at rated output. Built in DSP for Matrix routing, Speaker EQs, delays etc. Phoenix Input and output terminals,Built in DSP for Matrix routing, Speaker EQs,PEQ ,bandpass, delays etc	Each	1		
					SITC of class D amplifier with 4 x 300 W Load-independent outputs deliver full channel power to either low-impedance (4-8 Ω) or high-impedance (70/100V) loads without bridging .Amplifier shall have frequency response of 20 Hz to 20 kHz (+/- 1 dB) for LZ mode,with THD+N at rated power less than 0.04%.The amplifier shall meet or exceed the following performance specifications: channel separation (crosstalk) greater than 80 dB below rated power at 1 kHz. . The amplifier shall have 2 line-level inputs with selectable input sensitivity settings (-10 dBV, 4 dBu and 14 dBu) for balanced line-level inputs (6-pin Euroblock connector) and possibility of 4 or more no .of digital Audio channels . The amplifier shall offer a master mute connection for use with external dry contacts, normally open or normally closed, to mute all outputs of the amplifier.	Each	1		

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Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount			
		Sandipani Book mural	Informative Indoor Wall Mounted Speakers surrounding the Mural	Supply , installation , testing and commissioning of full range 2.25-inch or better pendant ceiling mounted music and PA loudspeaker. The loudspeaker shall meet the following performance criteria: Usable Frequency range (-10 dB) of 83Hz to 19kHz or better; Power handling of 64 Watt peak or more; Nominal dispersion of >=90° Conical or better; Sensitivity of 86 dB SPL or better and Max SPL of 104 dB SPL peak or more; Nominal impedance of 16 ohms and Integral multi-tap Transformer with selectable tap settings of 2/4/8/16W@70V & 100V or better. The loudspeaker shall be enclosed in engineered-plastics and a powder-coated steel grille.	Each	6			
			Power Amplifier Ohms/L MT Based	SITC of Class D configurable amplifier with a digital signal processing architecture running at 48 kHz / 24 bit .The Amplifier shall have 400 watts output power asymmetrically distributed across 4 output channels with selectable 4/8ohms, 70/100 Volt or mixed use operation.The amplifier shall have four analog and dante channels ; Frequency Response : 20Hz - 20kHz ; S/N Ratio > 100db and THD < 0.04% at rated output. Built in DSP for Matrix routing, Speaker EQs, delays etc. Phoenix Input and output terminals,Built in DSP for Matrix routing, Speaker EQs,PEQ ,bandpass, delays etc	Each	1			
		GuruDakshina Story Mural	Informative Indoor Wall Mounted Speakers surrounding the Mural	Supply , installation , testing and commissioning of full range 2.25-inch or better pendant ceiling mounted music and PA loudspeaker. The loudspeaker shall meet the following performance criteria: Usable Frequency range (-10 dB) of 83Hz to 19kHz or better; Power handling of 64 Watt peak or more; Nominal dispersion of >=90° Conical or better; Sensitivity of 86 dB SPL or better and Max SPL of 104 dB SPL peak or more; Nominal impedance of 16 ohms and Integral multi-tap Transformer with selectable tap settings of 2/4/8/16W@70V & 100V or better. The loudspeaker shall be enclosed in engineered-plastics and a powder-coated steel grille.	Each	4			
			Power Amplifier Ohms/L MT Based	SITC of Class D configurable amplifier with a digital signal processing architecture running at 48 kHz / 24 bit .The Amplifier shall have 400 watts output power asymmetrically distributed across 4 output channels with selectable 4/8ohms, 70/100 Volt or mixed use operation.The amplifier shall have four analog and dante channels ; Frequency Response : 20Hz - 20kHz ; S/N Ratio > 100db and THD < 0.04% at rated output. Built in DSP for Matrix routing, Speaker EQs, delays etc. Phoenix Input and output terminals,Built in DSP for Matrix routing, Speaker EQs,PEQ ,bandpass, delays etc	Each	1			
		Common AV Rack Backend - ZONE 2	Local Audio playback device	Supply, installation, testing and commissioning of 6-zone, 12-channel Class D streaming amplifier delivering featuring AirPlay 2, Chromecast, Spotify Connect, and Alexa Cast for seamless wireless audio, plus traditional analog/optical inputs, 7-band EQ, and integration with 3rd party control processors for multi zone audio control. It should be capable of work with a NAS (Network Attached Storage) drive. Should be capable of accessing and play local music files stored on a NAS through the VSSL system using compatible streaming apps.	Each	1			
			Control System Processor	Automation Controller Control Engine 4-Series multicore CPU, 2GB SDRAM, 8GB Flash ProgrammingModular Architecture (up to 10 simultaneous programs) Network 1x Gigabit Ethernet (802.1X, SSH, TLS, XiO Cloud ready) Serial Ports8x RS-232/422/485 COM ports Control I/O 8x IR/Serial outputs, 8x isolated relays, 8x Versiports System Bus 1x Cresnet® master port Security FIPS 140-2 compliant, Active Directory, SNMP V3 Form Factor 1 RU rack-mount chassis Compliance UL Listed, CE, FCC Part 15 Class B, Apple HomeKit compatible	Each	1			
			Control System wired Keypad / wireless keypad	Handheld wifi Tablet for controlling AV . Display 10.1" to 10.9" IPS/LCD or AMOLED; Resolution: 1920 x 1200 (WUXGA) or higher; Brightness: 400+ nits. Processor Octa-core CPU (minimum 2.0 GHz); 4nm or 6nm architecture for power efficiency. Operating System Android 14.0/15.0 or iPadOS 18; must support multi-year security patches. Memory & Storage RAM: 4 GB (minimum) to 8 GB; Internal Storage: 64 GB to 128 GB (expandable via MicroSD up to 1 TB). Connectivity Wi-Fi 6 (802.11ax), Bluetooth 5.3, and optional 4G LTE/5G (Nano SIM/eSIM support). Camera Rear: 8 MP with Auto-Focus; Front: 5 MP (minimum) for video conferencing. Battery 6,000 mAh to 8,000 mAh; support for 15W+ fast charging via USB-C. Security Biometric (Face Unlock or Fingerprint); support for Mobile Device Management (MDM) enrollment (e.g., Knox, Apple Business Manager).	Each	1			
			24 Port 1 gig POE+ Network Switch	L3 Network Switch with specification Port Density 26 x 1G ports (24 PoE+) + 4 x 10G SFP+ Uplinks PoE Power 480W total budget (802.3at PoE+ up to 30W/port) Switching Fabric 132 Gbps non-blocking; Layer 2/Layer 3 Lite (Static/PIM) AV Optimization Pre-configured profiles for Dante, Q-SYS, NDI, and AES67 Multicast IGMP Plus™ for instant out-of-the-box AVoIP setup Form Factor 1 RU, rear-facing ports with reversible rack-mount options AcousticsSoftware-controlled fans for "Quiet Mode" operation	Each	1			

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			Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount
Zone 3	Educational and Study Traditions	64 Vaidyas	Informative	Indoor Wall Mounted Speakers surrounding the Murals	Supply , installation , testing and commissioning of full range 2.25-inch or better pendant ceiling mounted music and PA loudspeaker. The loudspeaker shall meet the following performance criteria: Usable Frequency range (-10 dB) of 83Hz to 19kHz or better; Power handling of 64 Watt peak or more; Nominal dispersion of >=90° Conical or better; Sensitivity of 86 dB SPL or better and Max SPL of 104 dB SPL peak or more; Nominal impedance of 16 ohms and Integral multi-tap Transformer with selectable tap settings of 2/4/8/16W@70V & 100V or better. The loudspeaker shall be enclosed in engineered-plastics and a powder-coated steel grille.	Each	132		
				Power Amplifiers	SITC of Class D configurable amplifier with a digital signal processing architecture running at 48 kHz / 24 bit .The Amplifier shall have 400 watts output power asymmetrically distributed across 4 output channels with selectable 4/8ohms, 70/100 Volt or mixed use operation.The amplifier shall have four analog and dante channels ; Frequency Response : 20Hz - 20kHz ; S/N Ratio > 100db and THD < 0.04% at rated output. Built in DSP for Matrix routing, Speaker EQs, delays etc. Phoenix Input and output terminals,Built in DSP for Matrix routing, Speaker EQs,PEQ ,bandpass, delays etc	Each	16		
		Common AV Rack Backend - ZONE 3		Local Audio playback device	Supply, installation, testing and commissioning of 6-zone, 12-channel Class D streaming amplifier delivering featuring AirPlay 2, Chromecast, Spotify Connect, and Alexa Cast for seamless wireless audio, plus traditional analog/optical inputs, 7-band EQ, and integration with 3rd party control processors for multi zone audio control. It should be capable of work with a NAS (Network Attached Storage) drive. Should be capable of accessing and play local music files stored on a NAS through the VSSL system using compatible streaming apps.	Each	3		
				Control System Processor	Automation Controller Control Engine 4-Series multicore CPU, 2GB SDRAM, 8GB Flash ProgrammingModular Architecture (up to 10 simultaneous programs) Network 1x Gigabit Ethernet (802.1X, SSH, TLS, XiO Cloud ready) Serial Ports3x RS-232/422/485 COM ports Control I/O 8x IR/Serial outputs, 8x isolated relays, 8x Versiports System Bus 1x Cresnet® master port Security FIPS 140-2 compliant, Active Directory, SNMP V3 Form Factor 1 RU rack-mount chassis Compliance UL Listed, CE, FCC Part 15 Class B, Apple HomeKit compatible	Each	1		
				Control System wired Keypad / wireless keypad	Handheld wifi Tablet for controlling AV . Display 10.1" to 10.9" IPS/LCD or AMOLED; Resolution: 1920 x 1200 (WUXGA) or higher; Brightness: 400+ nits. Processor Octa-core CPU (minimum 2.0 GHz); 4nm or 6nm architecture for power efficiency. Operating System Android 14.0/15.0 or iPadOS 18; must support multi-year security patches. Memory & Storage RAM: 4 GB (minimum) to 8 GB; Internal Storage: 64 GB to 128 GB (expandable via MicroSD up to 1 TB). Connectivity Wi-Fi 6 (802.11ax), Bluetooth 5.3, and optional 4G LTE/5G (Nano SIM/eSIM support). Camera Rear: 8 MP with Auto-Focus; Front: 5 MP (minimum) for video conferencing. Battery 6,000 mAh to 8,000 mAh; support for 15W+ fast charging via USB-C. Security Biometric (Face Unlock or Fingerprint); support for Mobile Device Management (MDM) enrollment (e.g., Knox, Apple Business Manager).	Each	1		
				24 Port 1 gig POE+ Network Switch	L3 Network Switch with specification Port Density 26 x 1G ports (24 PoE+) + 4 x 10G SFP+ Uplinks PoE Power 480W total budget (802.3at PoE+ up to 30W/port) Switching Fabric 132 Gbps non-blocking; Layer 2/Layer 3 Lite (Static/PIM) AV Optimization Pre-configured profiles for Dante, Q-SYS, NDI, and AES67 Multicast IGMP Plus™ for instant out-of-the-box AVoIP setup Form Factor 1 RU, rear-facing ports with reversible rack-mount options AcousticsSoftware-controlled fans for "Quiet Mode" operation	Each	1		
Zone 4	Lifestyle and Daily Cycle Experience	Krishnaji Kund Installation	Light and Sound show	Outdoor Pole Mounted Arraybl e/powerful speakers	Supply, installation, testing & Commissioning of a Bi-amplified, 2 Way Progressive directivity Loudspeaker Array. Individual loudspeaker modules within the array shall meet the following criteria: Usable Frequency Range (-10dB) of 55 Hz - 18 kHz and Continuous Power Handling of >=600W LF + 150W MF-HF. There shall be LF driver of at least 14" in each module, and 6 compression drivers of 2" voice coil or better in a CADS Manifold. The Loudspeaker shall have a Max. SPL (Peak) of >=128 dB or better for LF and 133dB for MF-HF. It should have suitable Drivers for LF and MF/HF with Horizontal dispersion pattern of 90° or better (with multiple waveguide options, Vertical dispersion of the array shall be 60 degrees or better. The loudspeaker module shall be comprised of a shall be of Baltic birch plywood construction with IP55 weather rating	Each	8		
				Outdoor Subwoofers	Supply, installation, testing & Commissioning of a single 18" subwoofer. The loudspeaker shall meet the following criteria: usable Frequency Range (-10 dB) of 28 Hz - 300Hz or better. It should have an axial Sensitivity of > = 92dB (1W/1m) or more delivering a free field Max. Calculated SPL(peak) of >=127 db or better. The loudspeaker should have a nominal impedance: 4 ohm or more and continuous Power Handling of 600W or more; Complete with installation as per the site requirement.	Each	4		

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			Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount
				Power Amplifiers	SITC of Digital Dante Amplifier with Max output power of 4x1200W@4-8Ohms, 70V or 100V or bridged mode output power of 2x3000W@4ohms. Frequency response of 20 Hz - 20 kHz, SNR of >110 dB(A and THD+N < 0.1%. With Multiple channel metering LED and attenuation controls. PEQ, band pass, Spkr EQ, limiter, delay. Maximum input level 20 dBu. 4 Digital channels via Dante, with Euroblock, 8-pin connectors for Analog outputs. Software and hardware controlled. Sample rate 24-bit, 44.1 kHz – 192 kHz.	Each	2		
				Power Amplifiers	SITC of Digital Dante Amplifier with Max output power of 4x1200W@4-8Ohms, 70V or 100V or bridged mode output power of 2x3000W@4ohms. Frequency response of 20 Hz - 20 kHz, SNR of >110 dB(A and THD+N < 0.1%. With Multiple channel metering LED and attenuation controls. PEQ, band pass, Spkr EQ, limiter, delay. Maximum input level 20 dBu. 4 Digital channels via Dante, with Euroblock, 8-pin connectors for Analog outputs. Software and hardware controlled. Sample rate 24-bit, 44.1 kHz – 192 kHz.	Each	2		
		Common AV Rack Backend - ZONE 4		Local Audio playback device	Supply, installation, testing and commissioning of 6-zone, 12-channel Class D streaming amplifier delivering featuring AirPlay 2, Chromecast, Spotify Connect, and Alexa Cast for seamless wireless audio, plus traditional analog/optical inputs, 7-band EQ, and integration with 3rd party control processors for multi zone audio control. It should be capable of work with a NAS (Network Attached Storage) drive. Should be capable of accessing and play local music files stored on a NAS through the VSSL system using compatible streaming apps.	Each	1		
				DSP	SITC of Integrated Digital Sound Processor with following functionalities and specifications; Signal Processor shall be CPU-32-bit fixed/floating-point DSP + ARM, 456 MHz. The DSP shall have 8 Mic/Line inputs & 8 analog outputs, 8 Additional digital Outputs; 24 Bit A-D and D-A Converters; Sampling Rate : 48 kHz; THD : < 0.002 %; Channel Separation (Crosstalk) : < 105 dB; Frequency Response 20 Hz - 20 kHz; Dynamic Range : > 115 dB; 5 Control Inputs and Outputs; RS-232 and Ethernet Port for third party Control and Monitoring; inbuilt DSP features like automatic mic mixing, multiband graphic and parametric EQs, signal generators, routers, mixers, AGCs, duckers, gates, compressors, source selectors, and delays. etc. Shall Support at least 15 remote Zone controllers	Each	1		
				Control System Processor	Automation Controller Control Engine 4-Series multicore CPU, 2GB SDRAM, 8GB Flash Programming Modular Architecture (up to 10 simultaneous programs) Network 1x Gigabit Ethernet (802.1X, SSH, TLS, XiO Cloud ready) Serial Ports 8x RS-232/422/485 COM ports Control I/O 8x IR/Serial outputs, 8x isolated relays, 8x Versiports System Bus 1x Cresnet® master port Security FIPS 140-2 compliant, Active Directory, SNMP V3 Form Factor 1 RU rack-mount chassis Compliance UL Listed, CE, FCC Part 15 Class B, Apple HomeKit compatible	Each	1		
				Control System wired Keypad / wireless iPad	Handheld wifi Tablet for controlling AV . Display 10.1" to 10.9" IPS/LCD or AMOLED; Resolution: 1920 x 1200 (WUXGA) or higher; Brightness: 400+ nits. Processor Octa-core CPU (minimum 2.0 GHz); 4nm or 6nm architecture for power efficiency. Operating System Android 14.0/15.0 or iPadOS 18; must support multi-year security patches. Memory & Storage RAM: 4 GB (minimum) to 8 GB; Internal Storage: 64 GB to 128 GB (expandable via microSD up to 1 TB). Connectivity Wi-Fi 6 (802.11ax), Bluetooth 5.3, and optional 4G LTE/5G (Nano SIM/eSIM support). Camera Rear: 8 MP with Auto-Focus; Front: 5 MP (minimum) for video conferencing. Battery 6,000 mAh to 8,000 mAh; support for 15W+ fast charging via USB-C. Security Biometric (Face Unlock or Fingerprint); support for Mobile Device Management (MDM) enrollment (e.g., Knox, Apple Business Manager).	Each	1		
				24 Port 1 gig POE+ Network Switch	L3 Network Switch with specification Port Density 26 x 1G ports (24 PoE+) + 4 x 10G SFP+ Uplinks PoE Power 480W total budget (802.3at PoE+ up to 30W/port) Switching Fabric 132 Gbps non-blocking; Layer 2/Layer 3 Lite (Static/PIM) AV Optimization Pre-configured profiles for Dante, Q-SYS, NDI, and AES67 Multicast IGMP Plus™ for instant out-of-the-box AVoIP setup Form Factor 1 RU, rear-facing ports with reversible rack-mount options Acoustics Software-controlled fans for "Quiet Mode" operation	Each	1		
Zone 5		Sensory Kiosk	Informative	Small Speakers hidden inside kiosk	Supply, installation, testing and commissioning of Full range 2.25-inch or better IP55 rated surface mounted music and PA loudspeaker. The loudspeaker shall meet the following performance criteria: Frequency range (-10dB) of 83Hz to 19kHz or better; Power handling of 64 Watt peak or more; Nominal dispersion of 100°(H) × 80°(V) or better; Sensitivity of 84 dB SPL or more and Max SPL of 103 dB SPL peak or better; Nominal impedance of 16 ohms and Integral multi-tap Transformer with selectable tap settings of 2/4/8/16W@70V & 100V. The loudspeaker system shall be enclosed in engineered-plastics and a powder-coated steel grille. UL-1480 rated and EN54-24 compliant for Life safety/VA applications.	Each	2		

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STATUE, DWAR, STONE INLAY AND 3D ART & PAINTING WORKS										
Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount				
			Micro Amplifier	<p>mixer/amplifier with 48 kHz, 24-bit digital signal processing architecture.</p> <p>The mixer/amplifier shall include protection from shorted loads and general overheating.</p> <p>The mixer/amplifier shall have one output channel and drive 70/100 V distributed audio systems. The output power shall be 100 watts. The loudspeaker output connections shall be one 3-pin Euroblock connector. The auxiliary line output shall be two RCA connectors. The digital signal processor shall include selectable EQ presets to be applied to the loudspeaker outputs and the auxiliary output.</p> <p>The mixer/amplifier shall have two line-level inputs (two RCA stereo pairs), one Bluetooth wireless signal input, one front-panel mic/line input (one XLR/¼-inch connector), and one paging microphone input (one 4-pin Euroblock connector). The line-level inputs and Bluetooth signal input shall be selectable via a switch on the front panel. All inputs shall have individual input gain controls except for the Bluetooth signal.</p> <p>The frequency response of the mixer/amplifier shall be 70 Hz</p>	Each	2				
	Jyotish Shastra	Informative	Wall Mounted 5.1 surround sound system with surround effect	<p>Supply, installation, testing and commissioning of two-way 5.25-inch or better high SPL IP55 rated surface mount loudspeaker. The loudspeaker shall meet the following performance criteria: Frequency Range (-10 dB) of 90Hz - 18 kHz or better; Nominal Dispersion : 90°H x 80°V or better; Power handling of 400W peak or more; Sensitivity : 86 dB or better and the Max SPL : 116dB Peak or more with a Nominal impedance of 8 ohms and Integral multi-tap Transformer with selectable tap settings of 10/20/40/80W@70V & 100V; Standard wall mount brackets shall be included</p>	Each	5				
			Subwoofer	<p>Supply, installation, testing and commissioning of compact powered portable Subwoofer . The loudspeaker shall meet the following criteria: built-in amplifier with a system power of 1000W ; Frequency Range (-10 dB) of 38 Hz - 250 Hz; Normal dispersion shall be omni-directional; The loudspeaker shall have a Max SPL : 130 dB SPL. The loudspeaker system shall be comprised of a powder-coated perforated steel grille; two 10" high-excursion drivers; Shall have 2 balanced line level inputs and 2 balanced line level outputs; Shall have built-in protection for signal overload. shall include necessary arrangement mounting a Mid/high loudspeaker on the subwoofer.</p>	Each	1				
			Power Amplifier	<p>mixer/amplifier with 48 kHz, 24-bit digital signal processing architecture.</p> <p>The mixer/amplifier shall include protection from shorted loads and general overheating.</p> <p>The mixer/amplifier shall have two output channels and drive 4–8 Ω low-impedance systems. The output power shall be 160 watts per channel at 4 Ω and 80 watts per channel at 8 Ω. The loudspeaker output connections shall be two 2-pin Euroblock connectors. The auxiliary line output shall be two RCA connectors. The digital signal processor shall include selectable EQ presets to be applied to the loudspeaker outputs and the auxiliary output.</p> <p>The mixer/amplifier shall have four line-level inputs (two RCA stereo pairs, two 5-pin Euroblock connectors), one Bluetooth wireless signal input, and one paging microphone input (one 4-pin Euroblock connector). The line-level inputs and Bluetooth signal input shall be selectable via a switch on the front panel.</p> <p>The frequency response of the mixer/amplifier shall be 20 Hz to 20 kHz (+0/-3 dB). The THD+N at rated power shall be less</p>	Each	2				
			Power Amplifier	<p>mixer/amplifier with 48 kHz, 24-bit digital signal processing architecture.</p> <p>The mixer/amplifier shall include protection from shorted loads and general overheating.</p> <p>The mixer/amplifier shall have two output channels and drive 70/100 V distributed audio systems with a rear-panel switch to select 70 V or 100 V. The output power shall be 160 watts per channel. The loudspeaker output connections shall be two 2-pin Euroblock connectors. The auxiliary line output shall be two RCA connectors. The digital signal processor shall include selectable EQ presets to be applied to the loudspeaker outputs and the auxiliary output.</p> <p>The mixer/amplifier shall have four line-level inputs (two RCA stereo pairs, two 5-pin Euroblock connectors), one Bluetooth wireless signal input, and one paging microphone input (one 4-pin Euroblock connector). The line-level inputs and Bluetooth signal input shall be selectable via a switch on the front panel.</p> <p>The frequency response of the mixer/amplifier shall be 20 Hz to 20 kHz (+0/-3 dB). The THD+N at rated power shall be less</p>	Each	1				
			AVR along with power amplifier	<p>Amplification: 7.2 Channels; 100W per channel (8 ohm, 20Hz–20kHz, 0.08% THD) Video Support: 4K/60Hz and 4K/120Hz pass-through; HDR10+, Dolby Vision, Dynamic HDR Audio Formats: Dolby Atmos, DTS:X, and DTS Virtual:X HDMI Connectivity: 6 HDMI inputs (3 supporting 8K) and 2 HDMI outputs (eARC support) Streaming: HEOS® Built-in (Spotify, Amazon Music HD, Tidal), AirPlay 2, Bluetooth Audio Tech Discrete HDAM amplifier modules and Current Feedback circuitry Calibration: Audyssey MultEQ XT room correction built-in Voice Control: Alexa, Google Assistant, and Apple Siri compatible</p>	Each	1				

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STATUE, DWAR, STONE INLAY AND 3D ART & PAINTING WORKS									
Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount			
	Digital Tactile Table	Informative	Indoor Wall Mounted speakers surrounding the murals giving directional sound	Each	2				
			Power Amplifier	Each	2				
			Dante Input Adapter	Each	4				
			Dante Output Adapter	Each	4				
	Common AV Rack Backend - ZONE 5		Local Audio playback device	Each	1				
			Control System Processor	Each	1				
			Control System wired Keypad / wireless keypad	Each	1				
			24 Port 1 gig POE+ Network Switch	Each	1				

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STATUE, DWAR, STONE INLAY AND 3D ART & PAINTING WORKS									
			Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount
Zone 6		Chanting Ambience		Outdoor Pole Mounted Speaker	Supply, installation, testing and commissioning of Full range 4-inch or better IP55 rated surface mounted music loudspeaker. The loudspeaker shall meet the following performance criteria: Frequency range (-10dB) of 70Hz to 19kHz; Power handling of 160 Watt peak; Nominal dispersion of 90°(H) x 80°(V); Sensitivity of 87 dB SPL and Max SPL of 109 dB SPL peak or better; Nominal impedance of 8 ohms and Integral multi-tap Transformer with selectable tap settings of 5/10/20/40W@70V & 100V. The loudspeaker system shall be enclosed in engineered-plastics and a powder-coated steel grille. UL-1480 rated and EN54-24 compliant for Life safety/VA applications.	Each	40		
				Power Amplifier LMT Based	SITC of Class D configurable amplifier with a digital signal processing architecture running at 48 kHz / 24 bit .The Amplifier shall have 600 watts output power asymmetrically distributed across 4 output channels with selectable 4/8ohms, 70/100 Volt or mixed use operation.The amplifier shall have four analog and dante channels ; Frequency Response : 20Hz - 20kHz ; S/N Ratio > 100db and THD < 0.04% at rated output. Built in DSP for Matrix routing, Speaker EQs, delays etc. Phoenix Input and output terminals,Built in DSP for Matrix routing, Speaker EQs,PEQ ,bandpass, delays etc	Each	4		
Common Central Rack for Zone 1 & Zone 6				Music Server	Supply, installation, testing and commissioning of 6-zone, 12-channel Class D streaming amplifier delivering featuring AirPlay 2, Chromecast, Spotify Connect, and Alexa Cast for seamless wireless audio, plus traditional analog/optical inputs, 7-band EQ, and integration with 3rd party control processors for multi zone audio control. It should be capable of work with a NAS (Network Attached Storage) drive. Should be capable of accessing and play local music files stored on a NAS through the VSSL system using compatible streaming apps.	Each	1		
				DSL	SITC or digital audio DSP with 32-bit fixed-point DSP 456 MHz/ARM Cortex-A8 600 MHz processor or better with following features and specifications are required: The audio DSP shall have 12 balanced inputs and 8 balanced output channels for microphone or line-level analog audio signals, each independently controllable . The DSP shall have Dante® digital audio networking up to 64 input and 64 output channels, an Ethernet connection for control and programming on an RJ-45 jack, USB audio and 8 digital channels on an RJ-45 jack. The audio DSP shall include configurable signal processing, like signal routing and mixing, equalization, filtering, dynamics, delay, room combining, as well as control, monitoring, and diagnostic tools. The audio DSP shall control and proxy all expansion devices and other Dante® endpoints.It shall have following specs : Frequency Response-18 Hz to 20 kHz (+0.8 dB/-0.2 dB ref 1 kHz) THD+N < 0.003% @ +4 dBu (A-weighted/20 Hz to 18 kHz) Channel Separation (Crosstalk) < -105 dB at +4 dBu 1 kHz input	Each	1		
				Network Switch	L3 Network Switch with specification Port Density 26 x 1G ports (24 PoE+) + 4 x 10G SFP+ Uplinks PoE Power 480W total budget (802.3at PoE+ up to 30W/port) Switching Fabric 132 Gbps non-blocking; Layer 2/Layer 3 Lite (Static/PIM) AV Optimization Pre-configured profiles for Dante, Q-SYS, NDI, and AES67 Multicast IGMP Plus™ for instant out-of-the-box AVoIP setup Form Factor 1 RU, rear-facing ports with reversible rack-mount options AcousticsSoftware-controlled fans for "Quiet Mode" operation	Each	1		
				2.5 sq. mm speaker Cable	A 2.5 sq. mm speaker cable (approx. 14 AWG) is a high-conductivity audio cable designed for high-power systems and long-distance runs. It features multiple strands of Oxygen-Free Copper (OFC) to minimize resistance (typically 7.5–8.2 Ω/km) and prevent signal loss.	Mtr	2500		
				2.5 sq. mm outdoor speaker cable	A 2.5 sq. mm armoured speaker cable is a high-durability conductor designed for outdoor, underground, or industrial audio installations requiring extreme mechanical protection. Capacity: Rated for 19 Amps with a conductor resistance of ~8.20 Ω/km, ensuring low signal loss over long distances. Build: Consists of PVC or LSZH (Low Smoke Zero Halogen) insulation and a rugged outer sheath. The overall diameter typically ranges from 13.5mm to 15.0mm.	Mtr	4000		
				4.0 sq. mm outdoor speaker cable	An armoured 4 sq. mm speaker cable (approx. 12 AWG) is a heavy-duty, reinforced conductor designed for high-power audio systems and long-distance signal runs in harsh environments. Conductor: High-purity Annealed Tinned Copper (ATC) or Oxygen-Free Copper (OFC), typically featuring a high strand count (~128 strands of 0.20mm) for flexibility. Electrical Specs: Extremely low DC resistance (~4.95 Ω/km) and high current capacity (~26 Amps), ensuring minimal signal loss even over distances exceeding 50 meters. Insulation: Rugged PVC, XLPE, or LSZH (Low Smoke Zero Halogen) jacket that is UV-resistant and moisture-proof.	Mtr	1500		
				H	Technology				
				Category	Installation	Item	Description	Unit	Quantity

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			Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount
		AV/IT	General	Audio Guide	Audio Guide Devices, With Chargers & Programming	Nos.	100		
		Content	General	VO For Audio Guide	Voiceover audios for Audio Guide	Nos.	1		
		Content	General	Ambient Voiceover	VO for Ambience	Nos.	1		
Maharishi Sandipani Installation									
Gurudev Sandipani (Book Projection)									
		AV/IT	Gurudev Sandipani	Projector	4000 lumens, 4K PRO-UHD Laser, UST projector Capable of edge-blending and warping for curved surfaces. Throw ratio 0.16 - 0.40. Make: Panasonic / Christie / Epson or Equivalent	Nos.	1		
		AV/IT	Gurudev Sandipani	Projection Mounting Rig	Custom MS bracket with micro-adjustment for tilt, yaw, and focus; anti-vibration pads included.	Nos.	1		
		AV/IT	Gurudev Sandipani	Media Server	Supply and commissioning of high-performance media server with licensed interactive projection software capable of real-time sensor integration. The media server shall be GPU-accelerated (minimum NVIDIA RTX 5060ti 12GB or equivalent), with 64 GB DDR4 RAM, 1 TB NVMe SSD for system operations, and 1 TB SSD RAID-0 array for high-speed media playback. It shall support at least 4x 4K video outputs.	Nos.	1		
		Content	Gurudev Sandipani	Granth Animation Design	High-resolution projection mapping animation simulating page-turn effects, slokas, illustrations, guided narrative on Gurudev Sandipani. Custom creation of mythological visuals, shloka typography, textured parchment effects, animated cues and Voiceovers. Includes script, illustration, motion graphics, VFX.	Lot	1		
		Content	Gurudev Sandipani	Mapping, Masking & Calibration	Providing and fixing of 3D Projection mapping software, Playback control System to manage, schedule and control the media servers. It should have direct control on inputs and media timelines. It should have an option of being controlled by an external unit integrated with the software, to complete the job with all respects. Approved makes: Dataton/Coolux/Pixera/Resolume or equivalent etc.	Lot	1		
Narrative Mural									
		Software	Narrative Mural Wall	Web-AR Experience Development	End-to-end development of a browser-based AR experience triggered by mural. Includes AR scene setup, 3D overlays, animation, hotspot interactions. Platform: 8thWall / Zappar / Niantic Lightship WebAR / custom Three.js.	Lot	1		
		Software	Narrative Mural Wall	Marker-based Mural Tracking	Development of image tracking tied to mural artwork enabling precise AR alignment in visitor's mobile camera.	Lot	1		
		Content	Narrative Mural Wall	3D & Character Models	Creation of 3D models (Garg Muni, Ujjain skyline, mythological scenes) optimised for mobile AR rendering. Animation sequences showing city expansion, knowledge dissemination, characters interacting, etc.	Lot	1		
The Guru Dakshina									
		AV/IT	The Guru Dakshina Story	High-Brightness Laser Projector	Supply, installation, testing, and commissioning of a high-performance multi-projector system configured for seamless wide-format or curved-surface projection using advanced edge blending and geometric warping. The system shall consist of high-brightness laser projectors with a minimum output of 7,000 ANSI lumens, native WUXGA (1920x1200) or higher resolution, and a minimum contrast ratio of 2,500,000:1, suitable for both flat and complex surfaces under ambient lighting. Projectors shall be equipped with short-throw or fisheye interchangeable lenses (0.4:1 to 0.8:1 throw ratio) to support close-distance wide coverage. Suggested Makes: Panasonic / Epson / Christie or equivalent.	Nos.	2		
		AV/IT	The Guru Dakshina Story	Custom Projector Mount	MS fabrication mount with micro-adjustments (tilt, yaw, roll). Concealed design for visitor-facing aesthetics. Powder-coated black.	Nos.	2		
		AV/IT	The Guru Dakshina Story	Media Server	Supply and commissioning of high-performance media server with licensed interactive projection software capable of real-time sensor integration. The media server shall be GPU-accelerated (minimum NVIDIA RTX 5060ti 12GB or equivalent), with 64 GB DDR4 RAM, 1 TB NVMe SSD for system operations, and 1 TB SSD RAID-0 array for high-speed media playback. It shall support at least 4x 4K video outputs.	Nos.	1		
		AV/IT	The Guru Dakshina Story	Mapping, Masking & Calibration	Providing and fixing of 3D Projection mapping software, Playback control System to manage, schedule and control the media servers. It should have direct control on inputs and media timelines. It should have an option of being controlled by an external unit integrated with the software, to complete the job with all respects. Approved makes: Dataton/Coolux/Pixera/Resolume or equivalent etc.	Lot	1		
		Content	The Guru Dakshina Story	Scene Animation & Projection Mapping Content	2D/3D animated visuals including Krishna, Gautami, Maharishi Sandipani, emotional beats, and the return of Madhumangala. Designed specifically to overlay on physical diorama contours. Script for Guru Dakshina story with cultural accuracy and educational clarity. Studio-grade narration recorded by male/female VO artist, including atmospheric SFX.	Lot	1		
		Lighting	The Guru Dakshina Story	Theatrical Spotlights	10-20 W LED warm spotlight for highlighting static portions of diorama without interfering with projection. Beam angle: 15-25°, dimmable.	Nos.	30		

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Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount			
	Lighting	The Guru Dakshina Story	Lighting control	Lighting control for fade-in/out synced to narration and projection.	Nos.	1			
	Special Installation	The Guru Dakshina Story	Animatic Mechanism	Integration of servo/linear actuators enabling subtle programmed movements such as head turn, hand/arm gesture, gaze shift, breathing effect. Motion control to be smooth, low-noise (<45 dB), and suitable for close-range museum viewing.	Nos.	4			
64 Vidyas Tech									
	Software	64 Vidyas	Design & Development	Design, development, installation, testing & commissioning of an interactive multi-touch "64 Vidyā Navigator Table". 43"-65" commercial touch display, 20 point touch, 4K resolution.	Nos	1			
	Software	64 Vidyas	Knowledge Map Software Engine	Interactive browser for 64 art forms, animations, storytelling UI, info layers, quizzes on transparent screen.	Nos	1			
	Software	64 Vidyas	Micro-Interactions Package	Gesture responses, skill demonstrations, dynamic content cards, audiovisual triggers.	Nos	1			
	Software	64 Vidyas	Narrative Simulation Software	Story-based modules where each Vidyā is explained through animated sequences and scenario-based learning.	Nos	1			
	Software	64 Vidyas	Gesture Recognition Software	Enables visitor to "perform" actions related to Vidyās such as archery stances, dance mudrās, crafting motions, reasoning puzzles.	Nos	5			
	Software	64 Vidyas	Skill Challenge Scenarios	Gamified modules showcasing visitor performance, scoring, and comparison with ancient ideal techniques.	Nos	5			
	Software	64 Vidyas	Scroll Simulation Software	Visitors unroll digital scrolls by sliding hands, reveals teachings, mantras, diagrams of Vidyās.	Nos	10			
	AV/IT	64 Vidyas	Audio-Visual Systems, IT Infrastructure, Integration & Commissioning	Supply, installation, configuration, testing and commissioning of the complete AV/IT systems for 64 Vidyās zone galleries, including displays, projectors, LED walls, interactive touch systems, audio systems, networking hardware, control processors, and content delivery platforms. Scope includes complete cabling, terminations, mounting, programming and handover.	Nos	1			
	Interiors	64 Vidyas	Overall Interiors for 64 Vidyas	Complete execution of interior finishes including wall treatments, ceiling works, illumination, acoustic enhancement, exhibit integration support and all associated interior works required to create an immersive environment as per approved design intent.	Nos	1			
Krishna Installation									
	AV/IT	Krishna Installation	High-Brightness Laser Projector	Supply, installation, testing, and commissioning of a high-brightness 30,000- lumens professional laser projector featuring 3-chip DLP technology and WUXGA (1920x1200) resolution, designed for large-venue and mapping applications. The projector delivers 29,000 center lumens, 27,000 ANSI lumens, and 31,000 ISO lumens, with up to 20,000:1 dynamic contrast, or equivalent.	Nos.	4			
	AV/IT	Krishna Installation	Projector Housing	SITC Projection housing enclosure Interface for setup and monitoring of temperature, humidity and status indicators. Power control circuit with PID Management system compatible with the projection housing unit and display unit. Assembly and mounting of projector as per site plan with cables, mounting brackets and tilt/pan arrangement systems for projection layout.	Nos.	4			
	AV/IT	Krishna Installation	Projector Mount System	Heavy-duty adjustable mount with vibration isolation pads. Weatherproof installation.	Nos.	4			
	AV/IT	Krishna Installation	Media Server	Supply, installation, and configuration of a dedicated high-performance media server designed to manage multi-layer projection mapping, interactive content playback, and show control. Server shall be equipped with licensed projection mapping software such as Dataton WATCHOUT, Resolume Arena, or equivalent. Hardware specifications to include minimum Intel Core i9 or AMD Ryzen 9 processor, 32 GB DDR4 RAM (expandable), 1 TB NVMe SSD (OS & software), and additional 2 TB SSD for media storage. Graphics processing to be handled by NVIDIA RTX A2000 or higher, supporting at least 2 simultaneous video outputs (DisplayPort/HDMI/SDI) at 4K resolution.	Nos.	2			
	AV/IT	Krishna Installation	Networking Hardware	Switches, Cat-6 cables, control wiring for mapping, lighting, laser sync.	Lot	1			

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Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount			
AV/IT	Jyotish Shastra	Touchscreen Kiosk - Chandra ma Station	32" interactive display to explore moon position, phases, and mind-body connection.	Nos.	2				
Software	Jyotish Shastra	Planetary Motion Software	Motion-simulation UI where visitors rotate celestial bodies to see orbit effects. Explains ancient cosmic principles (e.g., Rashi, Nakshatra cycles, Pancha Mahabhutas alignment) with touch/gesture triggers. Unity/Unreal-based visualisation.	Nos.	1				
Content	Jyotish Shastra	Planetary Motion Animations	2D/3D scientific animations showing orbital paths, retrograde motion, day-night cycles. Explainer visualisation on lunar influence on emotions and vitality. Interactive content explaining cosmic balance, Panchang, Nakshatra system. Culturally aligned to Jyotish Shastra.	Lot	1				
Special Installation	Jyotish Shastra	Suspended Planets on Winches	Design, engineering, fabrication, installation, testing and commissioning of a Kinetic Planet System consisting of ten (10) suspended planetary models, each independently controllable using motorized winch mechanisms to simulate orbital movement and astronomical motion.	Nos.	10				
Special Installation	Jyotish Shastra	Rigging & Suspension System	Stainless steel cables, swivels, safety bonds, cable clamps, pulleys, and overhead track layout. Ceiling-mounted MS structure with load-bearing certification.	Nos.	1				
Special Installation	Jyotish Shastra	Motion Control System	Centralized controller capable of managing 10 winches independently or in grouped choreography. DMX/Art-Net/Ethernet control, programmable motion curves, planetary motion presets, synchronization with projection/LED content.	Nos.	1				
Interiors	Jyotish Shastra	Wall fabrication with LED Mount	Black/dark gradient skin panels with vinyl cosmic print or coated paint finish. MS Frame for LED	Nos.	1				
Ayurveda &									
AV/IT	Ayurveda & Chikitsa	UST Projector	4000 lumens, 4K PRO-UHD Laser, UST projector Capable of edge-blending and warping for curved surfaces. Throw ratio 0.16 - 0.40. Make: Panasonic / Christie / Epson or Equivalent	Nos.	3				
AV/IT	Ayurveda & Chikitsa	Ceiling/Floating Mounts	Adjustable projector mounts for alignment & keystone-free projection.	Nos.	3				
AV/IT	Ayurveda & Chikitsa	Media Server	Supply and commissioning of high-performance media server with licensed interactive projection software capable of real-time sensor integration. The media server shall be GPU-accelerated (minimum NVIDIA RTX 5060ti 12GB or equivalent), with 64 GB DDR4 RAM, 1 TB NVMe SSD for system operations, and 1 TB SSD RAID-0 array for high-speed media playback. It shall support at least 4x 4K video outputs.	Nos.	1				
AV/IT	Ayurveda & Chikitsa	Mapping, Masking & Calibration	Providing and fixing of 3D Projection mapping software, Playback control System to manage, schedule and control the media servers. It should have direct control on inputs and media timelines. It should have an option of being controlled by an external unit integrated with the software, to complete the job with all respects. Approved makes: Dataton/Coolux/Pixera/Resolume or equivalent etc.	Lot	1				
Software	Ayurveda & Chikitsa	RFID Tags for Objects	Passive RFID tags embedded in objects (herbs, gems, instruments, vials). Unique ID per object.	Nos.	10				
Software	Ayurveda & Chikitsa	RFID Readers under Pods	Short-range readers installed beneath table surface; detect placed objects instantly.	Nos.	10				
Software	Ayurveda & Chikitsa	Microcontroller Hub	Arduino/STM32/ESP32-based I/O controller reading sensor logic and sending triggers to server. Custom programming included.	Nos.	5				
Content	Ayurveda & Chikitsa	Content Development	Interactive Content Development for the Zone	Nos.	1				
Digital Tactile Table									
AV/IT	Digital Tactile Table	Commercial Touch Display	86" Stretch Display with Touch panel, 4K UHD, 24/7 rated. >400 nits brightness. LG / Samsung / ViewSonic.	Nos.	2				
AV/IT	Digital Tactile Table	High-Performance Mini PC	Extreme i7 12th gen, 32 GB RAM, 1TB SSD, Nvidia RTX 5060 GPU	Nos.	2				
Content	Digital Tactile Table	64 Art Form	High-quality illustrated/animated representations of historic art forms (teaching, magic, metallurgy, gem crafting, strategy, problem-solving, combat sciences, etc.). Short animations explaining each art form's key techniques.	Lot	1				
Software	Digital Tactile Table	Application Engine	Built using Unity/Unreal/HTML5 for smooth touch interactivity. Multi-touch optimized.	Lot	1				
Control & Automation	General	Control & Automation	Design, supply, installation, programming, testing and commissioning of a fully integrated Musum Control & Automation System covering all AV equipment, lighting systems, interactive exhibits, kinetic installations, show control servers, environmental sensors, and gallery-wide power sequencing. System to allow centralized, reliable, operator-friendly control of the entire museum experience.	Nos.	1				
				Total Amount					
I Furniture									
S.no.			Description	Unit					
1	Providing & installation of Wardrobe with 2 doors, black-brown, 79x176 cm (31 1/8x69 1/4 ")			Nos		30.00			
2	Providing & installation of Cabinet with doors, dark grey indoor/outdoor, 80x4x182 cm (31 1/2x17 3/8x71 5/8 ")			Nos		10.00			
3	Providing & installation of Room darkening curtains, 1 pair, yellow-beige/with heading tape, 135x250 cm (53x98 ")			Nos		30.00			

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STATUE, DWAR, STONE INLAY AND 3D ART & PAINTING WORKS										
Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount				
	4	Providing & installation of Chair, white/Tibbleby beige-grey	Nos	40.00						
	5	Providing & installation of 1 Seater Sofa in Walnut; Size: H 30 x W 22 x D 22 inches	Nos	8.00						
	6	Providing & installation of 3 Seater Sofa in Walnut; Size: H 30 x W 63 x D 24.5; Seating Height: 18.5 inches	Nos	4.00						
	7	Providing & installation of Solid Wood Coffee Table; Size: H 16 x W 40 x D 20 inches	Nos	5.00						
	8	Providing & installation of Wood Full Length Mirror; Size: H 70 x W 20 x D 1 inches	Nos	6.00						
	9	Providing and installation solid wood and metal chair table outdoor patio seating (set including 4 chair and 1 table)	Nos	25.00						
	10	Providing and installation Children's picnic table, light brown stained	Nos	10.00						
	11	Providing and installation LG 8 Kg 5 Star Smart Inverter Technology Fully Automatic Top Load Washing Machine (T80VMB4Z, Turbodrums, Auto Prewash, Stainless Steel drum, LED Display, Smart Diagnosis, Middle Black)	Nos	10						
	12	Providing and installation 30 Door Durable Metal Mobile Locker for Phones and Valuables, Lockable Storage Grey, 177.8x101.6x101.6x22.86 cm	Nos	2						
	13	Providing and installation 30 Door Durable Metal Mobile Locker for Phones and Valuables, Lockable Storage Grey, 177.8x101.6x101.6x22.86 cm	Nos	15						
	14	Providing and installation Samsung 189 L, 5 Star, Digital Inverter, Direct-Cool Single Door Refrigerator (RR21D2H259U/HL, Paradise Bloom Blue, Base Stand Drawer)	Nos	5						
	15	Providing and installation Table and 4 chairs, green green/green Tibbleby grey-green, 125x74 cm (49 1/4x29 1/8 ")	Nos	15						
	16	Providing and installation Storage comb w sliding glass doors, brown stained oak veneer/clear glass, 245x47x201 cm (96 1/2x18 5/8x78 7/8 ")	Nos	5						
	17	Providing and installation Rose Folding Chair with Writing Pad for Work from Home Cushion and Adjustable Writing Pad 44x39x81 cm	Nos	20						
	J	Internal Interior								
		Gurudev Sandipani (Book Projection)								
	Special Installation	Gurudev Sandipani	Granth Physical Book Structure (Life-sized)	Custom-fabricated open book structure of overall size approx. 2400mm (W) x 1800mm (H) x 600mm (D), comprising internal framework in MS square pipe 25x25x1.6mm thick, treated with anti-rust primer and enamel paint, curved book profile formed using CNC-cut 12mm MDF ribs at required intervals, clad with 6mm flexible MDF/bending ply to achieve smooth curvature, surface finished with 6-8mm thick POP/clay modelling to create organic page texture, final finish in matte white PU paint (low reflectance, <10 GU) suitable for projection mapping, includes routed edge detailing to simulate page layers (5-8mm spacing), internal provision for cable routing, and base anchoring with concealed MS plates, complete as per design, including fabrication, installation, and finishing.	Nos.	1				
	Interiors	Gurudev Sandipani	Back Support & Base Pedestal	Providing and installing pedestal of size approx. 1200mm (L) x 600mm (W) x 900mm (H), fabricated using MS square pipe 40x40x2mm thick structural frame with anti-rust treatment, clad with 12mm plywood finished in 1.0mm thick laminate (matte finish, Greenlam/Merino or equivalent) on all visible surfaces, internal surfaces painted in black matte enamel, includes provision for concealed cable routing using 25mm dia PVC conduits, ventilation slots for equipment heat dissipation, lockable access-slitter, and reinforced top with plywood and vibration isolation pads, complete including fabrication, installation, and integration with book structure.	Nos.	1				
	Interiors	Gurudev Sandipani	Relief Wall Backdrop	Design, fabrication and installation of thematic relief wall panels covering approx. 20 sq.m area (overall wall approx. 8000mm W x 2500mm H), comprising GfMS framework (25x25mm sections @ 600mm c/c), base cladding in 12mm MDF panels, layered with CNC-routed MDF sheets (6mm-12mm thick) to create relief depth varying from 20mm to 80mm projection, selective elements in FRP (3-5mm thick) for highlighted features, surface prepared with putty, primer, and finished in duco paint (matte/eggshell finish, Asian Paints/ICA equivalent) in approved colour scheme, includes engraved/embossed text (min. 6mm depth), provision for concealed LED strip channels where required, and complete installation as per design and site conditions.	Sq M	20				
		Narrative Mural Wall (Augmented Reality)								
	Interiors	Narrative Mural Wall	Mural Wall	Design, fabrication, supply and installation of interactive narrative mural wall of overall size approx. 6000mm (W) x 2400mm (H), comprising structural framework in GfMS sections (25x25mm @ 600mm c/c grid fixed to wall with anchor fasteners, base paneling in 12mm HDF/MDF boards, layered relief formation using CNC-cut HDF/MDF sheets (6mm-12mm thick) to create narrative elements such as huts, temples, landscapes and figures, selective highlighted elements to be executed in FRP (3-5mm thick moulded panels) for durability and finer detailing, surface finished with putty, sanding and primer, followed by hand-painted artwork using acrylic/emulsion paints with protective matte clear coat (Asian Paints/ICA or equivalent) to achieve mural finish, includes provision for AR integration markers/trigger points embedded within artwork, edge framing with painted borders, and complete installation as per approved design and site conditions.	Nos.	1				
		The Guru Dakshina Story (Projection mapping on the dioramas)								
	AV/IT	The Guru Dakshina Story	Mapping, Masking & Calibration	Providing and fixing of 3D Projection mapping software, Playback control System to manage, schedule and control the media servers. It should have direct control on inputs and media timelines. It should have an option of being controlled by an external unit integrated with the software, to complete the job with all respects. Approved makes: Dataton/Coolux/Pixera/Resolume or equivalent etc.	Lot	1				
	Special Installation	The Guru Dakshina Story	Silicone Statues	Design, sculpting, fabrication, supply and installation of 04 Nos. hyper-realistic silicone statues representing characters (Maharishi Sandipani, Gautami, Krishna, and child Madhumangala), each of approximate height 1500mm to 1650mm, comprising internal structure in MS armature (12-16mm rods with base plate anchoring), body formed using high-density polyurethane foam sculpting base, finished with platinum-cure silicone skin for realistic texture, includes detailed anatomical sculpting, hand-painted skin tones using silicone pigments, natural finish eyes, custom wig/hair treatment, and period-accurate costumes using fabric with appropriate draping, hands and facial features to be highly detailed with fine texturing, mounted on concealed base supports integrated into diorama platform, complete including fabrication, finishing, installation and integration with projection environment.	Nos.	4				
	Interiors	The Guru Dakshina Story	Background Relief Panels	Providing, fabrication and installation of background relief panels forming diorama backdrop of overall size approx. 10000mm (W) x 2700mm (H), comprising structural framework in GfMS sections 25x25mm @ 600mm c/c, base paneling in 12mm MDF, with layered CNC-routed MDF sheets (6mm-12mm thick) and selective FRP elements (3-5mm thick) to create engraved/bas-relief detailing with depth variation from 20mm to 75mm projection, surface prepared with putty and primer, finished in matte duco paint (Asian Paints/ICA or equivalent) in approved colour scheme, includes provision for integration with projection surfaces (non-gloss finish), concealed service access where required, and complete installation as per design and site conditions.	Nos.	1				
		12 Large Sculptures								
	Sculpture	12 Large Sculptures	Sculptures	Design, modelling, fabrication, finishing, supply and installation of 12 Nos. large-scale sculptures, each of approximate height 3000mm (10 ft) including base, depicting narrative scenes, sculptures to be fabricated using FRP / stone-resin composite (8-12mm thick shell) over internal structural framework in MS pipes (25mm-32mm dia with base plate anchoring), core bulk formed using high-density PU foam / clay modelling for detailing, surface to include fine carving of facial features, garments, ornaments and textures with minimum detailing depth of 3-10mm, finished with stone-textured PU/duco paint (matte finish, Asian Paints/ICA or equivalent) in uniform sandstone tone, each sculpture mounted on integrated circular/rectangular base of approx. 1200mm-1800mm dia/width and 300-450mm height, anchored to floor with chemical fasteners, complete including fabrication, finishing, transportation and installation as per approved design.	Nos	12				
	Interiors	12 Large Sculptures	Interiors	Supply, fabrication and installation of carved wall panels covering approx. 4843 sq.ft area, forming continuous wall cladding on all sides, comprising sub-structure in MS/GI framework (25x25mm sections @ 600mm c/c grid) fixed to wall, base layer in 12mm MDF boards, finished with CNC-routed / engraved panels (12-18mm thick MDF / FRP / stone-resin sheets) with Sanskrit shloka inscriptions and decorative borders having engraving depth of 5-12mm, panels to be installed with seamless joints, groove alignment and concealed fixing system, surface preparation with putty, primer and finished in matte duco / PU paint (sandstone/earth tone), includes edge trims, corner detailing, skirting integration and complete installation as per design and site conditions.	Sq Feet	4843				
		Sensory Kiosk								

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Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount				
	Interiors	Sensory Kiosk	Kiosk Main Frame	Design, fabrication and installation of interactive sensory kiosk main structure of overall size approx. 2200mm (W) x 550mm (D) x 700mm (H), including ergonomic user interface height, structure fabricated using 18mm-25mm BWR grade plywood with internal supports in MS square pipe 25x25mm (1.6mm thick) where required for rigidity, form developed in CNC-cut curved profiles with scroll-inspired geometry, front interaction deck inclined at approx. 15-20 degrees for user accessibility, surface finished in matte laminate (1.0mm thick, Greenlam/Merino or equivalent) and/or duco paint finish in approved colour, includes provision for recessed display mounting (approx. 55"-65" screen opening), touch/interaction surface housing, concealed access panels, internal cable routing channels, and base anchoring, complete including fabrication, finishing and installation.	Nos.	1				
	Interiors	Sensory Kiosk	Overall Fabrication	Providing complete fabrication, assembly and integration of sensory kiosk including structural body, interaction deck and housing for AV components, overall size approx. 2200mm (W) x 900mm (D) x 1000mm (H), includes internal framework in plywood and MS supports, provision for touchscreen/display unit (55"-65"), integration space for sensors (IR/gesture-based), media player housing, ventilation slots for heat dissipation, concealed wiring using PVC conduits, access shutters for maintenance, and finishing in laminate/duco combination, edges rounded with minimum curvature for safety, includes base skirting, levelling supports, and complete installation, testing and handover as per approved design.	Nos.	1				
Ayurveda & Chikitsa – Pick-and-Place Interactive Zone										
	Interiors	Ayurveda & Chikitsa	Counter Fabrication (12-18 ft length)	Design, fabrication and installation of interactive counter unit of overall size approx. 4500mm (L) x 750mm (D) x 900mm (H) (length adjustable within 3600mm-5400mm as per site), comprising structural framework in MS square pipe 40x40x2mm thick with anti-rust treatment, clad with 18mm BWR plywood finished in 1.0mm laminate veneer (matte finish, Greenlam/Merino or equivalent), top surface finished in matte solid colour laminate/PU coating (projection-friendly, low reflectance), includes internal compartments for sensor modules, wiring and access panels, concealed cable routing using PVC conduits, ventilation slots, and provision for integration of interactive pods, edges rounded to minimum R25-R50 radius, complete including fabrication, finishing and installation.	Rft	1				
	Interiors	Ayurveda & Chikitsa	Object Pedestals/ Placement Pods	Providing and installation of 6-10 Nos. recessed placement pods integrated within counter, each of approximate size 200mm x 200mm x 50-75mm depth, fabricated using MDF/solid surface/FRP moulded units with matte finish, each pod to include provision for embedding sensing modules (RFID / IR / weight sensors) with concealed wiring routed through counter body, top surface flush with counter finish, with removable access plate for maintenance, includes cushioning layer where required for object protection, complete including fabrication and integration with counter system.	Nos.	1				
	Interiors	Ayurveda & Chikitsa	Wall Surface for Projection	Providing and preparation of projection wall surface of approx. 5000mm (W) x 2700mm (H), including surface levelling with gypsum POP plaster (minimum 6-8mm thickness), finished to smoothness tolerance suitable for projection, application of primer and minimum 2-3 coats of projection-grade matte paint (neutral white/grey, low sheen <10 GU) such as Screen Goo / Asian Paints equivalent system, includes surface sanding between coats, edge masking, and ensuring uniform reflectance without texture or undulation, complete as per projection requirements and site conditions.	Nos.	1				
Digital Tactile Table										
	Interiors	Digital Tactile Table	Digital Table Structure	Design, fabrication and installation of digital tactile table structure of overall size approx. 1800mm (L) x 900mm (W) x 900mm (H) per unit, constructed using 25mm plywood with internal reinforcement in MS square pipe 25x25mm (1.6mm thick) for load stability, table to include recessed provision for flush-mounted touchscreen display (55"-65") with supporting frame in powder-coated MS, top surface finished in natural veneer/matte laminate with protective PU coating (low sheen), edges tapered and rounded to minimum R30-R50 radius for ergonomic use, includes internal cable management channels with removable service hatch (min. 450x450mm), cable grommets, ventilation slots and provision for cooling fans (80-120mm dia) for heat dissipation, dust-protected internal compartment for AV equipment, complete including fabrication, finishing and installation.	Nos.	2				
	Interiors	Digital Tactile Table	Fabrication	Providing complete fabrication, assembly and integration of 02 Nos. digital tactile tables, including structural body, touchscreen housing, and internal equipment compartments, overall unit size approx. 1800mm (L) x 900mm (W) x 900mm (H) each, includes integration provision for interactive display (55"-65"), media player, and control hardware, concealed wiring using PVC conduits, internal partitions for equipment segregation, ventilation and access panels, finishing in veneer/laminate with matte PU coating, all edges rounded and polished, includes base skirting, levelling feet, anchoring where required, and complete installation, testing and handover as per approved design and site conditions.	Nos.	1				
Interiors work for Krishna Patheya										
	AV & IT	Central Projection System	Short Throw Laser Projector (7,000 Lumens)	Supply, installation, testing & commissioning of ST laser projector, min. 7000 ANSI lumens, WUXGA resolution, 20,000 hrs life, suitable for table projection mapping. Suggested Make: Epson / Christie / Barco or equivalent.	Nos	2				
	AV & IT	Media Playback	High Performance Media Server	Supply and commissioning of high-performance media server with licensed interactive projection software capable of real-time sensor integration. The media server shall be GPU-accelerated (minimum NVIDIA RTX 5060ti / 2GB or equivalent), with 64 GB DDR4 RAM, 1 TB NVMe SSD for system operations, and 1 TB SSD RAID-0 array for high-speed media playback. It shall support at least 4x 4K video outputs. Suggested Make: Dell / HP / Asus or equivalent.	Nos	1				
	AV & IT	Interactive Control	21" Touchscreen Display	21-inch industrial capacitive touchscreens, 1920x1080 resolution, anti-glare, wall/table mounted for visitor interaction. Suggested Make: Samsung / ViewSonic / LG or equivalent.	Nos	4				
	AV & IT	Control System	Power Amplifier	Supply, installation, testing and commissioning of Class D mixer/amplifier with 48 kHz, 24-bit digital signal processing architecture. The mixer/amplifier shall have two output channels and drive 4-8 Ω low-impedance systems. The output power shall be 50 watts per channel at 4 Ω and 25 watts per channel at 8 Ω. The mixer/amplifier shall have two line-level inputs (two RCA stereo pairs), one Bluetooth wireless signal input, one front-panel mic-line input (one XLR ¼-inch connector), and one paging microphone input (one 4-pin Euroblock connector). The line-level inputs and Bluetooth signal input shall be selectable via a switch on the front panel. The frequency response of the mixer/amplifier shall be 40 Hz to 18 kHz (+0/-3 dB). The THD+N at rated power shall be less than or equal to 0.3%. The channel separation (crosstalk) shall be less than or equal to -60 dBV below rated power at 1 kHz. The dynamic range shall be 88 dB. The nominal input sensitivity shall be -10 dBV for line-level inputs and -58 dBV for paging microphone inputs. Various settings of the mixer/amplifier shall be configurable by a front-panel OLED display and a rotary encoder to navigate the menu/interface and adjust settings. The mixer/amplifier shall include protection from shorted loads and general overheating. The mixer/amplifier shall have venting with a natural-convection cooling system. The mixer/amplifier shall have one port intended for use with analog controllers. The mixer/amplifier shall have a mute connection for use with external dry contacts to mute the loudspeaker outputs and auxiliary output.	Nos	1				
	AV & IT	Audio System	Speakers	Supply and commissioning of high-performance media server with licensed interactive projection software capable of real-time sensor integration. The media server shall be GPU-accelerated (minimum NVIDIA RTX 5060ti / 2GB or equivalent), with 64 GB DDR4 RAM, 1 TB NVMe SSD for system operations, and 1 TB SSD RAID-0 array for high-speed media playback. It shall support at least 4x 4K video outputs.	Nos	4				
	AV & IT	Audio System	Dante Input Adapter	Supply, installation, testing and commissioning of 2 Channel Dante AVIO Analog Input Adapter with RJ45 and 2 XLR females	Nos	4				
	AV & IT	Audio System	Dante Output Adapter	Supply, installation, testing and commissioning of 2 Channel Dante AVIO Analog Output Adapter with RJ45 and 2 XLR females	Nos	4				
	AV & IT	Networking	24 Port 1 gig PoE+ Network Switch	L3 Network Switch with specification Port Density 26 x 1G ports (24 PoE+) + 4 x 10G SFP+ Uplinks PoE Power 480W total budget (802.3at PoE+ up to 30W/port) Switching Fabric 132 Gbps non-blocking, Layer 2/Layer 3 Lite (Static/PIM) AV Optimization Pre-configured profiles for Dante, Q-SYS, NDI, and AES67 Multicast IGMP Plus™ for instant out-of-the-box AVoIP setup Form Factor 1 RU, rear-facing ports with reversible rack-mount options Acoustics/Software-controlled fans for "Quiet Mode" operation	Lot	1				

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		Sr. No.	NON SOR	Descriptions	Unit	Qty.	Rate	Amount
	AV & IT	Accessories	HDMI/Signal Cabling & Interfaces	High-quality HDMI/DP cables, extenders, converters, and cable management conduits.	Lot	1		
	Fabrication	Diorama Base	Platform Fabrication	Design, fabrication and installation of rectangular diorama platform of overall size approx. 3600mm (L) x 2400mm (W) x 750mm (H), comprising structural framework in MS square pipe 50x50x2mm thick with cross bracing for load-bearing capacity of minimum 250 kg uniformly distributed load, top surface in 18mm BWR plywood with additional 12mm MDF layer for smooth finishing, finished in matte laminate/dioco paint (low reflectance, projection-friendly), includes provision for mounting diorama model, recessed channels for wiring, access panels (min. 600x600mm), and base skirting, complete including fabrication, finishing and installation.	Nos	1		
	Electrical	Electrical	Power Provisioning	Concealed wiring, DB, MCBs, power sockets for AV systems.	Lot	1		
	Fabrication	Diorama Structure	Miniature Landscape Model	Design, modelling, fabrication and installation of high-detail miniature landscape model representing Krishna Patheya circuit (Ujjain, Indore, Dhar), of overall size approx. 3000mm (L) x 1800mm (W) x 600mm (H), terrain developed using high-density PU foam and resin layers, finished with hand-sculpted detailing for topography, includes miniature buildings, temples, pathways and river systems using resin casting, acrylic sheets and 3D printed elements, surface painted with multi-layer acrylic finishes and protective coating, includes provision for embedding LED highlights and projection interaction zones, mounted securely on platform, complete including fabrication, detailing and installation.	Lot	1		
	Fabrication	Figurine	Krishna Miniature	Design, fabrication and installation of Krishna figurine of approximate height 450mm-600mm, fabricated using resin FRP casting with internal MS support (where required), finished with high-detail sculpting, hand-painted surface finish with protective coating, integrated with diorama base and aligned for projection interaction, complete including fabrication and installation.	Nos	1		
	Fabrication	Enclosure	Acrylic Cover	Providing and installation of clear acrylic enclosure of approx. 3000mm (L) x 1800mm (W) x 900mm (H) (or equivalent segmented dome), fabricated using 10-12mm thick clear acrylic sheets, thermoformed or panel-jointed with polished edges, includes structural support frame in MS/SS sections, provision for hinged/openable access panel, ventilation slots, and concealed fixing, surface to be scratch-resistant and optically clear, complete including fabrication and installation.	Nos	1		
	Fabrication	Kiosk Integration	Touchscreen Housing	Design, fabrication and installation of 04 Nos. touchscreen housings integrated along diorama edges, each of approx. 600mm (W) x 450mm (D) x 1200mm (H), fabricated using MS frame (25x25mm) with 12mm plywood cladding, finished in laminate/dioco paint, includes provision for 21" touchscreen display mounting, tilt angle of 15-20 degrees, cable routing channels, access panels, and ventilation slots, complete including fabrication, finishing and installation.	Nos	4		
	Lighting	Diorama Lighting	DMX Controlled LED Fixtures	RGBW LED spotlights and strip lights integrated inside diorama for dynamic highlighting. Suggested Make: Philips / Osram / Chauvet or equivalent	Nos	12		
	Lighting	Control	DMX Controller	DMX512 programmable controller integrated with AV triggers.	Nos	1		
	Lighting	Ambient	Track Lights 3D	Adjustable LED track lights (20W) for ambient illumination.	Nos	8		
	Content	Projection Mapping	Projection Mapping Content	Development of 3 min animated sequence of Krishna journey across sites with synchronized storytelling.	Lot	1		
	Content	Interactive UI	Touchscreen Interface Design	UI/UX design for touchscreen triggers including site selection, language options, animations.	Lot	1		
	Content	System Integration	AV & Interactive Programming	Integration of touch triggers with projection, lighting, and audio systems.	Lot	1		

Sr. No.	Personnel	Yearly Rate	TOTAL
1	Operation, management and maintenance of the entire assests/facilities created under this contract for 5 years including following but not limited to:		
	a. Management Team - 3 Nos b. Trainer & Supervisor - 1 Nos c. Staff for Repair, Maintenance & Replacement of Interiors & Technicals - 4 Nos d. Software Upgrades & Online Updates - 2 Nos e. Ushers - 10 Nos f. Housekeeping and upkeep management staff, materials & other services - 8 Nos g. Internal Security - 10 Nos		
1.01	Year 1		₹0
1.02	Year 2		₹0
1.03	Year 3		₹0
1.04	Year 4		₹0
1.05	Year 5		₹0
		Total	₹0