



**ODISHA BRIDGE & CONSTRUCTION CORPORATION LIMITED**

**(A Government of Odisha Undertaking)**

**VIKASH BHAWAN, NAYAPALLI, BHUBANESHWAR-751012**

**PHONE NO. 0674- 2394093, 2396309, 2390043 FAX-2396326**

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**Bid Identification No. 14/Tender/OBCC/2026-27**

**NATIONAL COMPETITIVE BIDDING**

**(WORKS ON TURNKEY BASIS WITH ARCHITECTURAL PLANNING, DESIGN & EXECUTION)**

**Request For Proposal  
towards**

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**“CONSTRUCTION OF SCHOOL BUILDINGS UNDER GODABARISHA  
MISHRA ADARSHA PRATHAMIKA VIDYALAYA SCHEME AT PANDUA  
(MODEL-I) & AT MADANPUR (MODEL-I) IN THE DISTRICT OF  
KEONJHAR, ODISHA ON TURNKEY BASIS.”**

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**PART-1**  
**BIDDING PROCESS**  
**INVITATION FOR BIDS**

**ODISHA BRIDGE & CONSTRUCTION CORPORATION LIMITED**

(A Government of Odisha Undertaking)

VIKASH BHAVAN, NAYAPALLI, BHUBANESHWAR-751012

**NATIONAL COMPETITIVE BIDDING****(WORKS ON TURNKEY BASIS WITH ARCHITECTURAL PLANNING, DESIGN & EXECUTION)****KEY DATES**

1.	NAME OF WORK	:	“CONSTRUCTION OF SCHOOL BUILDINGS UNDER GODABARISHA MISHRA ADARSHA PRATHAMIKA VIDYALAYA SCHEME AT PANDUA (MODEL-I) & AT MADANPUR (MODEL-I) IN THE DISTRICT OF KEONJHAR, ODISHA ON TURNKEY BASIS.”
2.	PERIOD OF AVAILABILITY OF BIDDING DOCUMENT	:	From 17.06.2026 to Dt. 24.06.2026 upto 5.00 PM.
3.	LAST DATE OF RECEIPT OF PRE-BID QUERY	:	
4.	DATE and TIME OF PRE-BID MEETING	:	
5.	ISSUE OF PRE-BID CLARIFICATION	:	
6.	LAST DATE AND TIME FOR RECEIPT OF BIDS	:	Dt. 24.06.2026, 5.00 PM
7.	DATE AND TIME OF OPENING OF TECHNICAL BIDS	:	Dt. 24.06.2026, 05.30 PM
8.	DATE AND TIME OF PRESENTATION	:	TO BE ANNOUNCED
9.	DATE AND TIME OF OPENING OF FINANCIAL BIDS	:	TO BE ANNOUNCED
10.	PLACE OF OPENING OF BIDS	:	Office of the Managing Director, OB & CC Ltd., Vikash Bhavan, Nayapalli, Bhubaneswar-751012.
11.	OFFICER INVITING BIDS	:	ACE (C) & Chief Engineer-III, Odisha Bridge & Construction Corporation Ltd., Odisha.

No. 3608

Date: 18.05.2026

File: OBCC-CIRIII-MISC-0092-2026

**NOTICE INVITING TENDER**

**Bid Identification: 14/Tender/OBCC/2026-27**

The ACE (C) & Chief General Manager-III, Odisha Bridge & Construction Corporation Limited, Vikash Bhavan, Bhubaneswar on behalf of the Governor of Odisha, invites bids from eligible bidders for the work mentioned below.

Sl. No.	Name of the Work	Concerned Nodal Officer with Headquarters	Bid Security Fee/ EMD (Online bank transfer)	Bid Processing Fee (Online bank transfer)	Class of Contractor	Time for completion
1	2	3	4	5	6	7
1	Construction of School Buildings under Godabarisha Mishra Adarsha Prathamika Vidyalaya Scheme at Pandua (Model-I) & at Madanpur (Model-I) in the District of Keonjhar, Odisha on Turnkey basis.	ACE (C) & Chief General Manager-III	₹ 10,06,000.00	₹ 11,800.00 (Including GST)	'A' Class Or 'Special' Class	09 (Nine) Calendar Months

- The Bid document shall be available in the website <https://tendersodisha.gov.in>, from Dt. 25.05.2026 to 5:30 PM of Dt. 16.06.2026 for online bidding.
- The bidder must possess compatible Digital Signature Certificate (DSC) of Class – II or Class-III. The online bidding procedure is indicated in the document.
- Pre-bid queries will be received up to 5.00 P.M of 29.05.2026 through email [queries@obcc.in](mailto:queries@obcc.in) and [circle3@obcc.in](mailto:circle3@obcc.in)
- The Pre-bid meeting will be held on 30.05.2026 at 12.30 P.M through video conferencing in the following link: <https://meet.google.com/mgg-sfmr-ype>
- Pre-bid clarification shall be available in the e-procurement portal on 01.06.2026.
- The bids shall be received only on “online mode” on or before 05.30 P.M. of Dt. 16.06.2026.
- The bidder must submit the Bid Security / EMD of required amount through Online mode as stated in the above table at column no 4. Scanned copy of Transaction receipt of Bid Security Fee shall have to be uploaded along with the Technical Bid failing which bid shall be summarily rejected.

8. The technical bids received online shall be opened on Dt. **17.06.2026 at 11.30 AM** in the office of the Managing Director, Odisha Bridge & Construction Corporation Ltd., Vikash Bhavan, Bhubaneswar, Odisha in the presence of bidders who wish to attend. Bidders who participated in the bid can witness the opening of bids after logging on to the site through their DSC. If the office happens to be closed on the date of opening as specified, then the same will be opened on the next working day.
9. The Design Basis Report (DBR) in Cover-III and the Original financial transaction receipts in support of Bid processing Fee and Bid Security Declaration in Cover-IV shall have to be submitted on or before **5:00 PM of 20.06.2026** in the office of Managing Director, OB & CC Ltd failing which the bid shall not be evaluated and liable for rejection.
10. Bids submitted other than e-procurement platform shall not be considered.
11. The authority reserves the right to cancel any or all bids without assigning any reason thereof.
12. Further details with any addendum, corrigendum, cancellation can be seen from the website <https://tendersodisha.gov.in>.

  
ACE (C) & Chief General Manager-III

**C.C to: -**

- i. The PS to the Principal Secretary to Government of Odisha, Works Department, Bhubaneswar for kind information of Principal Secretary.
- ii. The PS to the Commissioner-cum-Secretary, School and Mass Education Department, Govt. of Odisha for kind information of Commissioner-cum-Secretary.
- iii. The PS to the State Project Director, Odisha School Education Programme Authority for kind information of State Project Director.
- iv. The PS to the Managing Director, OB&CC Ltd for kind information of Managing Director.
- v. The Collector and District Magistrate, Keonjhar.
- vi. The Engineer-in-chief (Civil-cum-Roads), Nirman Soudha, Odisha, Bhubaneswar.
- vii. The Chief Engineer (DPI & Roads), Odisha/Chief Engineer (Building), Odisha/ Chief Engineer (NHs), Odisha/ Chief Manager (Technical), State e-Procurement Cell, / Chief Engineer, NIC Office, Bhubaneswar.
- viii. The Chief General Manager-I/ Chief General Manager-II/ Chief Finance Officer, OB &CC Ltd, Bhubaneswar.
- ix. The General Manager, Keonjhar Division, Keonjhar, OB & CC Ltd.

**SECTION 1:**  
**INSTRUCTION TO BIDDERS**  
**(ITB)**

## **A. GENERAL INSTRUCTIONS**

### **1. Scope of Bid:**

- 1.1 The Employer [As mentioned in Bid Data Sheet at the end of Section-1] invites bids for the works namely [As mentioned in Bid Data Sheet at the end of Section-1] with design and execution (as defined in this document and referred to as “the works”).
- 1.2 The successful bidder shall be expected to complete the works by the intended completion date specified in the Contract.
- 1.3 Throughout these bidding documents, the terms 'bid' and 'tender' and their derivatives (bidder, tenderer, bid/ tender, bidding/ tendering, etc.) are synonymous. Contractor means the selected bidder for the work.

### **2. Source of Funds:**

The expenditure on this project shall be met from District Mineral Foundation Fund, Keonjhar, Government of Odisha.

### **3. Eligible Bidders:**

- 3.1. This Invitation for Bids is open to all bidders registered with the Government of Odisha or other State Governments / Government of India / MES / Railways for execution of Civil works in general and Road, Bridge & Building work in particular. Bidders are advised to note the minimum qualification criteria specified in the “Instruction to Bidders” to qualify for the award of contract.
- 3.2. All bidders shall provide in Section 2, Forms of Bid and Qualification Information.
- 3.3 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices.

### **4. Qualification of the Bidder:**

- 4.1 All bidders shall provide Forms of Bid and Qualification Information under Section 2, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary. The proposed methodology should include programme of construction backed with equipment planning and deployment duly supported with broad calculations and quality – assurance procedures proposed to be adopted justifying their capability of execution and completion of work as per technical specifications, within stipulated period of completion.
- 4.2 If the Employer has not undertaken prequalification of potential bidders, all bidders shall include the following information and documents with their bids in Section 2:
  - (a) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business, written power of attorney of the signatory of the Bid to commit the Bidder;
  - (b) Financial Turnover of the bidder from construction works during last five financial years ending 31.03.2024.[As mentioned in Bid Data Sheet at the end of Section-1]
  - (c) Experience in similar works [As mentioned in Bid Data Sheet at the end of Section-1] and size for each of the last five financial years preceding the NIT, and details of works under way or contractually committed and clients who may be contacted for further information on those contracts;

- (d) Major items of construction equipment proposed to carry out the Contract;
  - (e) Qualifications and experience of key site management and technical personnel proposed for the Contract;
  - (f) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five financial years.
  - (g) Evidence of adequacy of working capital for this contract [access to line (s) of credit and availability of other financial resources];
  - (h) Authority to seek references from the Bidder's bankers;
  - (i) Information regarding any litigation, arbitration, debarment, termination, notice for recession of contract, abandonment of work, etc. resulting from contracts executed or under execution by the bidder within the last five years of bid submission due date of this tender. The information shall include the name of the employer with contact details, description of work, agreement no., status and matter of dispute and/or issues, contact details of employer;
  - (j) Proposals for subcontracting components of the works amounting to more than .... [As mentioned in Bid Data Sheet at the end of Section-1] percent of the Bid Price (for each, the qualifications and experience of the identified sub-contractor in the relevant field should be annexed); and
  - (k) The proposed methodology and program of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones as mentioned in the Contract data. . [As mentioned in Bid Data Sheet at the end of Section-1]
  - (l) Deleted
  - (m) Deleted
  - (n) Deleted
  - (o) Deleted
- 4.3 Bids from Joint ventures/association of firms: ..... [As mentioned in Bid Data Sheet at the end of Section-1].
- 4.4 A. To qualify for award of contract, each bidder in its name should have in the last five financial years immediately preceding the financial year in which the bids are received: -
- (a) Achieved a minimum annual financial turnover<sup>1</sup> from civil construction works of ..... [As mentioned in Bid Data Sheet at the end of Section-1].
  - (b) Satisfactorily completed, as a prime Bidder, at least one similar work / any major civil construction work of value not less than..... [As mentioned in Bid Data Sheet at the end of Section-1]. Bidder should submit completion certificate for Central / State Government projects. For private sector projects, completion certificate with TDS shall be submitted.

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<sup>1</sup> *Financial turnover from construction works and cost of completed works of previous financial years shall be given weightage of 10% (ten percent) per year based on rupee value to bring them to the price level up to the year of bid invitation.*

(c) Deleted

(d) Bidders must furnish their bid, a detailed construction planning and methodology supported with layout and necessary drawings and detailed calculations to allow the employer to review their proposals

4.4. B. Each bidder should further demonstrate:

(a) Availability (either owned or leased) of the following key and critical equipment for this work:

<b>Sl. No.</b>	<b>List of plants and equipment</b> [As mentioned in Bid Data Sheet at the end of Section-1].	<b>Requirement<sup>2</sup></b> [As mentioned in Bid Data Sheet at the end of Section-1].
1.		
2.		

(b) The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and detail calculations to allow the employer to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

(c) Liquid assets and / or availability of fund based credit facilities/ overdraft facilities of not less than the amount of Rs. [As mentioned in Bid Data Sheet at the end of Section-1] crores (*Credit lines / Letter of Credit / Certificate from banks for meeting the fund requirements, etc.*). Usually, the equivalent of the estimated cash flow for three months in peak construction period.

4.5 Sub-contractors' experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria. [Clarified in Bid Data Sheet at the end of Section-1]

4.6 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:

$$\text{Assessed Available Bid Capacity} = (A \times N \times 2) - B$$

Where:

**A** = Maximum value of civil engineering works executed in any one financial year during the last five financial years (updated to bid invitation year .....[As mentioned in Bid Data Sheet at the end of Section-1] price level) taking into account the completed as well as works in progress.

**N** = Number of years prescribed for completion for which the bid has been invited

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<sup>2</sup> Based on the preliminary studies carried out by the department, an indicative list of major equipment and their quantity to attain the completion of works are shown in the Bid Data Sheet.

**B** = Value (updated to the price level on the financial year in which bids are received) of existing commitments and on-going works<sup>3</sup> to be completed during the next .....[As mentioned in Bid Data Sheet at the end of Section-1]

4.7 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

(a) Made any misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or

(b) Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and / or

(c) Participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

**5. One Bid per Bidder:**

E-Procurement procedure accepts only one bid from one bidder. Refer e-Procurement procedure as annexed.

**6. Cost of Bidding:**

The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

**7. Site visit:**

7.1 The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information like site conditions, traffic, location, surroundings, climate, availability of power, water & other utilities for construction, access to site, handling and storage of materials, weather data, applicable laws and regulations, and any other matter considered relevant by them that may be necessary for preparing the Bid and entering into a contract for construction of the Works within the stipulated time of submission of the Bid. No extension of time is likely to be considered for submission of Bids. The costs of visiting the Site shall be at the Bidder's own expense.

7.2 The Geotechnical and other related data provided by the Employer are based on the investigation conducted by Employer and are for reference purposes only. The Bidder should satisfy himself with the data furnished and make his own investigations if required for submitting his offer.

7.3 It shall be deemed that by submitting a BID, the Bidder has:

- (a) made a complete and careful examination of the Bidding Documents, Schedules of the RFP Document;
- (b) received all relevant information requested from the Employer

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<sup>3</sup> *The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer-in - charge, not below the rank of an Executive Engineer or equivalent or certified by registered Chartered Accountant.*

- (c) accepted the risk of inadequacy, error or mistake in the information provided in the Bidding Documents or furnished by or on behalf of the Authority relating to any of the matters referred to in Clause 7.1 above. No claim shall be admissible at any stage on this account.
- (d) satisfied itself about all matters, things and information including matters referred to in Clause 7.1 hereinabove necessary and required for submitting an informed BID, execution of the Project in accordance with the Bidding Documents and performance of all of its obligations thereunder;
- (e) acknowledged and agreed that inadequacy, lack of completeness or incorrectness of information provided in the Bidding Documents or ignorance of any of the matters referred to in Clause 7.1 hereinabove shall not be a basis for any claim for compensation, damages, extension of time for performance of its obligations, loss of profits etc. from the Employer, or a ground for termination of the Agreement by the Contractor;
- (f) acknowledged that it does not have a Conflict of Interest;and
- (g) agreed to be bound by the undertakings provided by it under and in terms hereof.

7.4 The Employer shall not be liable for any omission, mistake or error in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RFP, including any error or mistake therein or in any information or data given by the Employer/ any of his Representatives.

## **B. BIDDING DOCUMENTS**

### **8. Content of Bidding Documents:**

- 8.1 The set of bidding documents comprises the documents listed below, and addenda issued in accordance with Clause 10:

Section	Particulars	Volume No.
	Invitation for Bids	I
1	Instructions to Bidders	
2	Form of bid, Qualification Information, and other forms	
3	Conditions of Contract	
4	Contract data	
5	Technical Specifications	II
6	Securities and other forms	III
7	Conceptual and Indicative Drawings	IV
8	Terms of Reference, Design Brief & Scope of Work	
9	Payment Schedule	
10	Documents to be furnished by bidder	V

- 8.2. The Bidder shall download the above listed documents and shall submit his bid after preparing the same in compliance to Section-2 (refer clause 12).
- 8.3. The bidder shall be expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, annexures and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to Clause 26 hereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be rejected.

### **9. Clarification of Bidding Documents:**

- 9.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing or by cable (hereinafter "cable" includes telex, facsimile and e-mail) at the Employer's address indicated in the invitation to bid. The Employer will respond to any request for clarification, which he received earlier than 15 days prior to the deadline for submission of bids. Copies of the Employer's response will be posted in e-procurement portal, including a description of the enquiry but without identifying its source.

#### **9.2 Pre-bid meeting:**

- 9.2.1 The bidder or his official representative is invited to attend a pre-bid meeting which shall be held through video conferencing as mentioned in Bid Data Sheet at the end of Section-1].
- 9.2.2 The purpose of this meeting will be to clarify issues and to answer questions on any matter that may be raised at this stage.

- 9.2.3 The bidder is requested to submit any questions in writing to reach the Employer not later than the date as mentioned in the Bid Data Sheet
- 9.2.4 Minutes of the meeting/ response to queries, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be uploaded in the e-procurement portal. Any modification of the bidding documents listed in Sub-Clause 8.1 which may become necessary as a result of the pre-bid meeting/ queries shall be made by the Employer exclusively through the issue of an addendum/ corrigendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.
- 9.2.5 Non-attendance at the pre-bid meeting or non-submission of pre-bid query will not be a cause for disqualification of a bidder.

**10. Amendment of Bidding Documents:**

- 10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addendum/ corrigendum.
- 10.2 Any addendum/ corrigendum thus issued shall be part of the bidding documents and shall be posted in e-procurement portal.
- 10.3 To give prospective bidders reasonable time [As mentioned in Bid Data Sheet at the end of Section-1] in which to take an addendum into account in preparing their bids, the Employer shall extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2 below.
- 10.4 The addendum/ corrigendum shall also be available in official website ..... [As mentioned in Bid Data Sheet at the end of Section-1].

## C. PREPARATION OF BIDS

### 11. Language of the Bid:

All documents relating to the bid shall be in the English language.

### 12. Documents comprising the Bid:

12.1 The bid to be submitted by the bidder shall be in two separate parts (refer Clause 8.1):

**Cover-I:** Shall be named "***Technical Bid***" and shall comprise (*to be submitted online only*): -

- (i) Technical Bid (in the format indicated at Section 2);
- (ii) Scanned copy of Transaction receipt of the Bid Processing fee & Scanned copy of Transaction receipt / Bank Guarantee of Bid Security/ EMD
- (iii) Qualification Information and supporting documents as specified in Section -2
- (iv) Certificates, undertakings, affidavits as specified in Section 2,
- (v) Undertaking that the bid shall remain valid for the period specified in Clause 15.1 of Bid Data Sheet

**Cover –II:** Shall be named "***Financial Bid***" and shall comprise (*to be submitted online only*)

- (i) The Lump sum Price Bid

**Cover-III** (*both in online as well as original hardcopy*):

The Bidder shall furnish the Design Basis Report (DBR) in Cover-III as indicated in this Annexure. The intent of this DBR is to present the salient features of technical considerations and scope of work envisaged by the bidder for the project, based on which the bidder has made its financial offer.

The bidder shall make sure that the DBR should cover sections on Architectural, civil, structural, electrical, public health engineering, HVAC, fire protection system, elevator systems and other monitoring and control systems, landscaping aspects For Details Please refer Annexure-III to ITB. DBR to be given weightage in 15 marks in Technical Evaluation.

**Cover-IV** (*both in online as well as original hardcopy*):

Bidder shall furnish other documents

- (i) Transaction receipt of Bid Processing Fee
- (ii) Transaction receipt / Bank Guarantee of Bid Security / EMD.

### 13. Bid Price:

13.1 The contract shall be for the whole work as described in Sub-Clause 1.1, based on the Lump Sum Price Bid submitted by the Bidder.

- 13.2 The bidder shall fill the total bid price as **Lump Sum Price** (both in figures and words) for execution of work on Lumpsum / Turnkey basis including all items of works as specified in the Bid document.
- 13.3 The prices tendered shall except in so far as it is otherwise, provided under the contract, include all constructional plant, labour, supervision, materials, erection maintenance, insurance, profit, taxes and duties except GST & other levies together with all general risks, liabilities and obligations set out or implied in the contract.
- 13.4 The lump sum bid price quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account.

**14. Currencies of Bid and Payment:**

The currency of bid and payment shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

**15. Bid Validity:**

- 15.1 Bids shall remain valid for a period ..... [As mentioned in Bid Data Sheet at the end of Section-1] after the due date for bid submission specified in Clause 20. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to Clause 12.1 (v) and the Form of Bid submitted by the bidder, the latter shall be deemed to stand corrected in accordance with the former and the bidder has to provide for any additional security that is required.
- 15.2. In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders and the bidder may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable / e-mail. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 16 in all respects.

**16. Bid Security:**

- 16.1 The Bidder shall furnish, as part of his Bid, a Bid security of an amount as shown in IFB for this particular work in online mode/ in the form of Bank Guarantee as per the format provided in Section-6: Securities and other Forms.
- 16.2 Any bid not accompanied by an acceptable Bid Security and not secured as indicated in sub-clauses 16.1 shall be rejected by the Employer as non-responsive.
- 16.2 The Bid Security of unsuccessful bidders shall be returned within 28 days of the end of the bid validity period specified in sub-clause 15.1.
- 16.4 The Bid Security of the successful bidder shall be discharged when the bidder has signed the Agreement and furnished the required Performance Security
- 16.5 The Bid Security may be forfeited
- (a) If the Bidder withdraws the Bid after Bid opening during the period of Bid validity.
  - (b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to
    - (i) Sign the Agreement; or
    - (ii) Furnish the required Performance Security.
    - (iii) Deposit the required license fees with State Government to register itself as a Super Class contractor with Government of Odisha within 15 (fifteen) days of issue of Letter of Acceptance of Bid.

**17. Alternative Proposals by Bidders:**

Bidders shall submit offers as per his own estimate based on his own design & drawing but complying with the requirements of the bidding documents, including the basic technical design parameters and as per regulations of concerned Urban Development Authority, OECBC, specifications relevant to MoRT&H, IRC, IS Codes & NBC.

**Conditional offer or alternative offers will not be considered further in the process of tender evaluation.**

**18. Format and Signing of Bid: Refer e-Procurement procedure as annexed.**

## **D. SUBMISSION OF BIDS**

### **Online submission as per Govt. of Odisha e-Procurement Procedure annexed**

- 19. Sealing and Marking of Bids** – Refer e-procurement procedure as annexed in Annexure-I to ITB for Cover-I and Cover-II of the bid (Clause-12.1).
- 20. Deadline for Submission of the Bids**
  - 20.1 Bid shall be received on or before [As mentioned in 20.1 of Bid Data Sheet at the end of Section-1] as notified in IFB.
  - 20.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.
- 21. Late Bids:**

Not applicable as per e-Procurement procedure. Employer will not be responsible for non-submission of bids due to technical glitch (like slow net speed, crash of portal) in e-procurement portal.
- 22. Modification and Withdrawal of Bids:** Refer e-Procurement procedure as annexed.

## **E. BID OPENING AND EVALUATION**

### **23. Bid Opening:**

- 23.1 All the bids received shall be opened in the Office of the Employer on [As mentioned in Bid Data Sheet at the end of Section-1] in the presence of the Bidders or their representatives who choose to attend. In the event of the specified date of Bid opening being declared a holiday, the Bids will be opened at the appointed time and location on the next working day. Refer e-Procurement procedure as annexed
- 23.2 The Employer shall prepare minutes of the Bid opening.

### **24. Process to be Confidential:**

Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award is successful and Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of his Bid.

### **25. Clarification of Financial Bids:**

- 25.1. To assist in the examination, evaluation, and comparison of Bids, the Employer may, at his discretion, ask the lowest evaluated responsive bidder for clarification of his-Bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable/e-mail, but no change in the price or substance of the Bid shall be sought, offered, or permitted.
- 25.2. Subject to Sub-Clause 24.1, no Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so writing.
- 25.3. Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

### **26. Examination of Bids and Determination of Responsiveness:**

- 26.1 During the detailed evaluation of "Technical Bids", the Employer will determine whether each Bid
- (a) Meets the eligibility criteria defined in Clause 3 and 4;
  - (b) Is accompanied by the required Bid Securities and;
  - (c) Is substantially responsive to the requirements of the Bidding documents.
  - (d) Is fulfilling the requirements of IFB.
  - (e) Is substantially responsive in accordance with the procedure as per **Annexure-II** and substantially responsive to the requirements of the Bidding documents. After Prequalification Evaluation (Phase-I), Technical Evaluation (Phase-II) and Power Point Presentation (Phase-III) the Bidder enter into Financial Evaluation. During the Financial evaluation of the "Financial Bid" of the lowest evaluated bidder, the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications, and drawings.

- 26.2** A substantially responsive “Financial Bid” is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the works; (b) which limits in any substantial way, inconsistent with Bidding documents, the Employer’s rights or the Bidder’s obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.
- 26.3 If a “Financial Bid” is not substantially responsive, it will be rejected by the Employer and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.
- 27. Correction of Errors** - Not applicable as per e-procurement procedure.
- 28. Evaluations and Comparison of Financial Bids**
- 28.1. The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with the procedure as per **Annexure-II**.
- 28.2. The Employer reserves the right to accept or reject any variation arising out of change in scope of work. Such variations, which are in excess of the requirements of the Bidding documents, shall not be taken into account in Bid evaluation.

## F. AWARD OF CONTRACT

### **29. Award Criteria:**

29.1 Subject to Clause 30, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid price, provided that such Bidder has been determined to be

(a) eligible in accordance with the provisions of Clause 3 and

(b) qualified in accordance with the provisions of Clause 4.

29.2 In no case, the contract shall be awarded to any bidder whose available bid capacity is less than the evaluated bid price, even if the said bid is the lowest evaluated bid. The contract will in such cases be awarded to the next lowest bidder at his evaluated bid price.

### **30. Employer's Right to accept any Bid and to reject any or all Bids:**

30.1 Notwithstanding Clause 29, the Employer reserves the right to accept or reject any Bid and to cancel the Bidding process and reject all Bids at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer's action.

30.2 The Employer reserves the right to reject any Application and/ or bid if:

(a) at any time, a material misrepresentation is made or uncovered, or

(b) The Bidder does not provide, within the time specified by the Employer, the supplemental information sought by the Employer for evaluation of the Bid.

30.3 In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of subsistence thereof, including the Defects Liability Period, that one or more of the bid conditions have not been met by the Bidder , or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Contractor either by issue of the LOA or entering into the Agreement , and if the Bidder has already been issued the LOA or has entered into the Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by the Employer to the Bidder , without the Employer being liable in any manner whatsoever to the Bidder and without prejudice to any other right or remedy which the Employer may have under this RFP, the Bidding Documents, the Agreement or under applicable law.

30.4 The Employer reserves the right to verify all statements, information and documents submitted by the Bidder in response to the tender document. Any such verification or lack of such verification by the Employer shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of the Employer thereunder

### **31. Notification of Award and Signing of Agreement:**

31.1 The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex, facsimile or e-mail confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the "**Letter of Acceptance (LoA)**") will state the sum that the Employer will pay the Bidder in consideration of the design and execution the

works on a turnkey basis by the Bidder as prescribed by the Contract (hereinafter and by the Contract called the "**Contract Price**").

- 31.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 32.
- 31.3 The Contract will incorporate all agreements between the Employer and the successful Bidder. The detail work programme and milestone wise activity shall be finalized during contract negotiation with the successful bidder within 14 days after issue of **Letter of Acceptance**. The agreed work programme / milestone shall form part of the contract agreement. Within 21 days of receipt of **Letter of Acceptance**, the successful Bidder will sign the Agreement and deliver it to the Employer. The agreement will be signed by the Employer and sent to the successful Bidder, within 28 days following the notification of award along with the Letter of Acceptance
- 31.4 Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.
- 31.5 In the event of non-payment of the performance security by the L1 bidder, the successful bidders in sequence (L2, L3 ....) may be asked for negotiation for execution of the work with the bid price quoted by the L1 bidder.

### **32 Performance Security:**

- 32.1 Within 21 days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a **Performance Security** [valid for a period as stipulated in Cl. 48 of Conditions of Contract & in the contract data] in any of the forms given below for an amount **equivalent to 5 (five) % of the Contract price**:
- An e- Bank Guarantee issued by any bank indicated in Bid Data Sheet **payable at par by its branch at Bhubaneswar** in the form given in Section 6; or
  - a deposit receipt of any Bank Schedule Bank (list indicated in Bid Data Sheet) / Post Office Savings Bank Account / National Savings Certificate / Post Office Time Deposit Account duly pledged in favour of the [As mentioned in Bid Data Sheet at the end of Section-1].
- 32.2 Deleted
- 32.3 Failure of the successful Bidder to comply with the requirements of Sub-Clause 32.1 shall constitute sufficient grounds for cancellation of the award and suitable action under provision of Bid Security or suspension from further bidding for a period of three years from bid due date.

**33. Advance Payment and Security** - The Employer shall make advance payment to the Contractor of the amounts stated in the Contract Data by the date stated in the Contract Data, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a Bank acceptable to the Employer in amounts and currencies equal to **110 (hundred & ten) %** of the advance payment.

### **34. Corrupt or Fraudulent Practices:**

- 34.1 It is required that the bidders / contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, it is:
- (a) Defined, for the purposes of this provision, the terms set forth below as follows:

- (i) “Corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution and
  - (ii) “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition.
- 34.2 The Employer will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.
- 34.3 Furthermore, Bidders shall be aware of the provision stated in sub-clause 23.2 and sub-clause 54.2 of the Conditions of Contract.

**Procedure to participate in online bidding- e-procurement**

**(Refer clause-19 of ITB)**

1. **PARTICIPATING IN THE BID IN THE E-PROCUREMENT PORTAL:** The Contractor/Bidder intending to participate in the bid is required to register in the Portal using his /her active personal/ official e-mail ID as his Login ID and attach his/her valid Digital Signature Certificate (DSC) to his/her unique Login ID. The DSC used must be of appropriate class (Class II or Class III) issued from a registered Certifying Authority such as n-Code, Sify, TCS, MTNL etc. He/ She has to submit the relevant information as asked for about the firm/ contractor. The portal registration of the bidder/ firm is to be authenticated by the State Procurement Cell after verification of original valid certificates/ documents such as (i) PAN and (II) Registration Certificate (RC)/ GST Registration Certificate and GSTIN (for procurement of goods) of the concerned bidder. The time period of validity in the portal is at par with validity of RC/ GST Registration Certificate and GSTIN. Any change of information by the bidder is to be re-authenticated by the State Procurement Cell. After successful authentication bidder can participated in the online bidding process.

Contractor not registered with Government of Odisha, can participate in the e-procurement after necessary enrolment in the portal but have to subsequently register themselves with the appropriate registering authority of the State Government before award of the work as per prevalent registration norms of the State.

- 1.1 To log on to the portal the Contractor/Bidder is required to type his/her username and password. The system will again ask to select the DSC and confirm it with the password of DSC. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique ID, password and DSC combination and authenticates the login process for use of portal.
- 1.2 The tender documents uploaded by the Tender Inviting Officer in the website <https://tendersodisha.gov.in> will appear on the "Active Tenders" Section of the homepage. Only a small notification will be published in the newspaper specifying the work details along with mention of the specific website for details. The publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the 'Invitation for Bid' after which the same will be removed from the list of Active tenders. Any bidder can view or download the bid documents from the web site.
- 1.3 Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences towards his eligibility for such exemption.
- 1.4 The software application has the provision of payment of cost of tender document through payment gateways of authorized bankers by directly debiting the account of the bidders.
- 1.5 Furnishing scanned copy of such documents is mandatory along with the tender documents otherwise his/her bid shall be declared as non-responsive and thus liable for rejection. It is mandatory that the DSC issued in the name of the authorized signatory is used in the portal.
- 1.6 In the case of any failure, malfunction, or breakdown of the electronic system used during the e-procurement process, the tender inviting officer shall not accept any responsibility for failures or breakdowns other than in those systems strictly within their own control.
- 1.7 Any third party/company/person under a service contract for operation of e-procurement system

in the State or his/their subsidiaries or their parent companies shall be ineligible to participate in the procurement processes that are undertaken through the e-procurement system irrespective of who operates the system.

- 1.8 For submission of Bids through the E-Procurement Portal, the bidder shall up load the scanned copy/copies of document in prescribed format wherever warranted in support of eligibility criteria and qualification information. The on-line bidder shall have to produce the original documents in support of the scanned copies and statements uploaded in the portal before the specified date as per DTCN.
- 1.9 Each bidder shall submit only one bid for one package. A bid is said to be complete if accompanied by cost of bid document and appropriate bid security. The system shall consider only the last bid submitted through the E-Procurement portal.
- 1.10 The bidder may ask question related to tender online in the e-procurement portal using his/her DSC, provided the questions are raised within the period of seeking clarification as mentioned in tender call notice/Bid. The Officer inviting the Bid/ Procurement Officer-Publisher will clarify queries related to the tender.
- 1.11 The details of drawings and documents pertaining to the works available with the officer inviting the Bid as well as in the office of the Superintending Engineer and Executive Engineer as mentioned in the Contract Data will be open for inspection by the bidders. The bidder is required to down load all the documents for preparation of his bid. It is not necessary for the part of the Bidder to up-load other Bid documents (after signing) while up-loading his bid. He is required to up load documents related to his eligibility criteria and qualification information and Bill of Quantities duly filled in. It is assumed that while participating in the bid, the bidder has referred all the drawings and documents. Seeking any revision of rates or backing out of the bid claiming for not having referred to any or all documents provided in the Bid by the Officer Inviting the Bid will be construed as plea to disrupt the bidding process and in such cases the bid security shall be forfeited.
- 1.12 Any addendum / corrigendum/ cancellation of tender shall be published in the website <https://tendersodisha.gov.in> , notice board and through paper publication and such notice shall form part of the bidding documents.
- 1.13 The system generates a mail to those bidders who have already uploaded their tenders and those bidders if they wish can modify their tenders. The bidders are required to which the website till last date and time of bid submission for any addendum/ corrigendum/ cancellation thereof. Tender inviting authority is not responsible for communication failure of system generated mail. All the volumes/documents shall be uploaded / provided in the portal by the Officer inviting the bid. The bidder shall carefully go through the document and prepare the required documents and up load the scanned documents in Portable Document Format to the portal in the designated locations of Technical Bid. He will fill up the rates of items or percentage in the BOQ down loaded for the work in designated Cell and up loads the same in designated locations of Financial Bid. Bidders are to submit only the original BoQ uploaded by publisher after entering the relevant fields without any alteration/deletion/modification. Multiple BoQ submission shall lead to cancellation of bid. In case of item rate tender, bidders shall fill in their rates other than zero value in the specified cells. In the percentage rate tender, the bidder quoting Zero value is valid and will be taken as Schedule of Rates. Submission of document shall be affected by using DSC of appropriate class.

## **2. PAYMENT OF EMD/ BID SECURITY AND COST OF BID DOCUMENTS:**

The Bidder shall furnish, as part of his Bid, a Bid security for the amount mentioned under Contract Data in online mode. Non-submission of bid security within the designated period shall debar the bidder from participating in the on-line bidding system and his portal registration shall be cancelled. His name shall also be informed to the registering authority for cancellation of his registration.

2.1 The EMD or Bid Security payable along with the bid as mentioned in the bid document.

2.2 Deleted.

2.3 The tender accepting authority will verify the originals of all the scanned documents of the successful lowest bidder only within 5 days of opening of the tender (price bid). In the eventuality of failure on the part of the lowest successful bidder to procedure the original documents, he will be debarred in future from participating in tender for 3 years and will be blacklisted by the competent authority. In such as situation, successful L-2 bidder will be required to produce his original documents for consideration of his tender at the negotiated rate equal to L1 bidder.

2.4 Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidence towards his eligibility for such exemption.

2.5 Government of Odisha has introduced e-payment gateway into the portal for payment of cost of Bid and Bid Security/ Earnest Money Deposit. The process of using e-payment gateway is mentioned in the “Procedure for Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids”.

## **3 FORMAT AND SIGNING OF BID:** (Logging to the Portal)-The Contractor/ Bidder is required to type his/her Login ID and Password. The system will again ask to select the DSC and confirm it with the password of DSC as a second stage authentication. For each login, a user’s DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique Login ID, Password and DSC combination and authenticates the login process for use of portal.

The bidder can download the tender of his choice and save it in his system and undertake the necessary preparatory work off-line and upload the completed tender at his convenience within the final date and time of submission. The bidder shall only submit single copy of the required documents and Price Bid in the portal. In the Financial bid, the bidder cannot leave any figure blank. He has to only write the figures; the words will be self-generated. The Bidders are advised to up load the completed Bid document well ahead of the last date & time of receipt to avoid any last moment problem of power failures etc.

3.1 The Bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including Declaration form, price bid etc and store in the system.

3.2 The bidder shall log on to the portal with his DSC and move to the desired tender for up loading the documents in appropriate place one by one simultaneously checking the documents. Once the Bidder makes sure that all the documents have been up-loaded in appropriate place, he clicks the submit button to submit the bid to the portal.

3.3 The bids once submitted cannot be retrieved or corrected. Tender cannot be pre-opened and cannot be submitted after due date and time. Therefore, only after satisfying that all the documents have been uploaded, the Bidder should activate submit button.

3.4 In the e-procurement process each process are time stamped. The system can identify each individual who has entered in to the portal for any bid and the time of entering in to the portal.

3.5 The Bidder should ensure clarity of the document up loaded by him to the portal especially the scanned documents by taking out sample printing. Non-submission of legible documents may render the bid non-responsive. However, the Officer inviting the Bid if so, desires can ask for legible copies or original copies for verification with in a stipulated period provided such document in no way alters the Bidder's price bid. If the Bidder fails to submit the original documents with in the stipulated date, his bid security shall be forfeited.

#### **4 SUBMISSION OF BIDS: -**

- 4.1 The bidder shall carefully go through the tender and prepare the required documents. The bid shall have a Technical Bid and a Financial Bid. The Technical bid generally consists of GSTIN, PAN, Registration Certificate, Affidavits, Profit Loss statement, List of similar nature of works, work in hand, list of machineries and any other information required by OIT. The Financial Bid shall consist of the Bill of Quantities (BOQ) and any other price related information/ undertaking including rebates.
- 4.2 Bidders are to submit only the original BOQ (in .xls format) uploaded by Procurement Officer Publisher (Officer Inviting Tender) after entering the relevant fields without any alteration/ deletion/ modification. Multiple BOQ submission by bidder shall lead to cancellation of bid. In case of items rate tender, bidders shall fill in their rates other than zero value in the specified cells without keeping it blank. In the percentage rate tender the bidder quoting zero percentage is valid and will be taken at par with the estimated rate of the work put to tender.
- 4.3 The bidder shall upload the scanned copy/ copies of document in support of eligibility criteria and qualification information in prescribed format in Portable Document Format (PDF) to the portal in the designated locations of Technical Bid.
- 4.4 The bidder shall write his name in the space provided in the specified location in the Protected Bill of Quantities (BOQ) published by the Officer Inviting Tender. The bidder shall type rates in figure only in the rate column of respective items(s) without any blank cell in the rate column in case of item rate tender and type percentage excess or less up to two decimal places only in case of percentage rate tender.
- 4.5 The bidder shall log to the portal with his/ her DSC and move to the desired tender for up loading the documents in appropriate place one by one simultaneously checking the documents.
- 4.6 Bids cannot be submitted after due date and time. The bids once submitted cannot be viewed, retrieved or corrected. The Bidder should ensure correctness of the Bid prior to uploading and take print out of the system generated summary of submission to confirm successful uploading of bid. The bids cannot be opened even by the OIT or the Procurement Officer Publisher/ opener before the due date and time of opening.
- 4.7 Each process in the e-procurement is time stamped and the system can defect the time of log in of each user including the Bidder.
- 4.8 The Bidder should ensure clarity/ legibility of the document uploaded by him to the portal.
- 4.9 The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/ tender.
- 4.10 The bidder should check the system generated confirmation statement on the status of the submission.
- 4.11 The bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and

failure in the network.

4.12 The Tender Inviting Officer is not responsible for any failure, malfunction or breakdown of the electronic system used during the e-procurement process.

4.13 The Bidder is required to upload documents related to his eligibility criteria and qualification information and Bill of Quantity duly filled in. It is not necessary for the part of the bidder to upload the drawing and the other Bid documents (after signing) while uploading his bid. It is assumed that the bidder has referred all the drawings and documents uploaded by the Officer Inviting the Bid.

4.14 The Bidder will not be able to submit his bid after expiry of the date and time of submission of bid (server time). The date and time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer Inviting the Bid.

4.15 The 'Online bidder' shall digitally sign on all statement's documents, certificates uploaded by him, owning responsibility for their correctness/ authenticity as per IT ACT 2000. If any of the information furnished by the bidder is found to be false/ fabricated/ bogus, his EMD/BID Security shall stand forfeited and his registration in the portal shall be blocked and the bidder is liable to be blacklisted.

## **5 SECURITY OF BID SUBMISSION:**

5.1 All bid data uploaded by the Bidder to the portal will be encrypted by the DSC of the opener(s). The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.

5.2 The Bid shall be received in encrypted format by the system which can only be decrypted / opened by the authorized openers only on or after the due date and time.

## **6 DEADLINE FOR SUBMISSION OF THE BIDS:**

6.1 The online bidding will remain active till the last date and time of the bid submission. Once the date and time (Server date and time) is over, the bidder will not be able to submit the bid. The date & time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer inviting the Bid.

## **7 RESUBMISSION AND WITHDRAWAL OF BIDS:**

7.1 Resubmission of bid by the Bidders for any number of times before the final date and time of submission is allowed.

7.2 Resubmission of bid shall require uploading of all documents including price bid afresh.

7.3 If the bidder fails to submit his modified bids within the pre-defined time of receipt, the system shall consider only the last bid submitted.

## **8 LATE BIDS:**

8.1 The system shall reject submission of any bid through portal after closure of the receipt time. For all purpose the server time displayed in the e-procurement portal shall be the time to be followed by the bidder and concerned officers.

## **9 MODIFICATION AND WITHDRAWAL OF BIDS:**

9.1 In the E-Procurement Portal, it is allowed to modify the bid any number of times before the final date and time of submission. The bidder shall have to log on to the system and resubmit the documents as asked for by the system including the price bid. In doing so, the bids already submitted by the bidder will be removed automatically from the system and the latest bid only will be admitted. But the bidder should avoid modification of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure. If the bidder fails to submit his modified bids within the designated time of receipt, the bid already in the system shall be taken for evaluation.

9.2 In the E-Procurement Portal, withdrawal of bid is allowed. But in such case, he has to write a letter with appropriate reasons for his withdrawal addressed to the Officer inviting the bid and upload the scanned document to portal in the respective bid before the closure date and time of receipt of the bid. The system shall not allow any withdrawal after expiry of the closure time of the bid.

## **10 OPENING OF THE BID:**

10.1 Bid opening date is specified during tender creation or can be extended with corrigendum. This date is available in IFB, tender document as well as the home page of portal. Bid opening can be done by the authorized users which are defined during the tender publication / approval stage. The bids are encrypted using their public keys and can be decrypted only on or after the Bid Opening due date and time. The bid opener's private key will be required to open the bids and all the openers have to log on to the portal during that time.

10.1.1 The bidders who participated in the on-line bidding can witness opening of the bid from any system logging on to the portal with the DSC away from opening place. Contractors are not required to be present during the bid opening at the opening location if they so desire.

10.1.2 Each activity is date and time stamped with user details. For time stamping, server time is taken as the reference.

10.2 In the event of the specified date of bid opening being declared a holiday for the Officer inviting the Bid/Engineer-in-Charge, the bids will be opened at the appointed time on the next working day.

10.3 In case bids are invited for more than one package, the order for opening of the "Bid" shall be that in which they appear in the "Invitation for Bid".

10.4 The Bid openers; who have been pre-defined shall log on to the portal with their respective DSC. Unless all the Officers who have been declared as Opening officers, log on the portal with their DSC the Tender cannot be opened.

10.5 In case of non-responsive tender, the officer Inviting tender should complete the e-Procurement process by uploading the official letter for cancellation/ re-tender.

## **11 EVALUATION OF BIDS: -**

11.1 All the opened bids shall be downloaded and printed for taking up evaluation. The officer authorized to open the tender shall sign and number on each page of the documents downloaded and furnish a certificate that "the documents as available in the portal containing..... nos. of pages".

11.2 After opening of technical bid, the bidder may be asked in writing / online (in their registered e-mail ID) to clarify on the uploaded documents provided in the Technical Bid, if necessary, with respect to any

doubts or illegible documents required for Technical Evaluation. The Officer Inviting Tender may ask for any other document of historical nature during Technical Evaluation of the tender. Provided in all such cases, furnishing of any document in no way alters the bidders price bid. Non submission of legible documents may render the bid non-responsive. The authority inviting bid may reserve the right to accept any additional document.

- 11.3 The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit
- 11.4 Immediately, on receipt of these clarifications, the Evaluating Officers; predefined in the system for the bid, will finalize the list of responsive bidders. They will log on to the site with their DSC and record their comments on the technical evaluation page in the system. The Officer Inviting the Bid if also the accepting authority, shall log on to the system with his digital signature and check the technical evaluation. He can either accept or pass on to the evaluating officers for re-evaluation. Upon acceptance of technical evaluation by the Accepting authority in the system, the system shall automatically generate letter to all the responsive bidders and the system shall forward the letter to all the responsive bidder that their technical bid has been evaluated responsive with respect to the data/information furnished by him and the letter shall also intimate him the date & time of opening of financial bid. The system shall also inform the non-responsive bidders in their e-mail ID that their bid has been found non-responsive.
- 11.5 The Technical evaluation of all the bids shall be carried out up as per the information furnished by the Bidders. But evaluation of the bid does not exonerate the bidders from checking their original documents and if at a later date the bidder is found to have misled the evaluation through wrong information, action as per relevant clause of DTCN shall be taken against the bidder/contractor.
- 11.6 The Procurement Officer-Evaluators will evaluate bid and finalized list of responsive bidders.
- 11.7 Opening of price bid and evaluation of lowest bidder is subject to satisfaction of other qualification information.
- 11.8 The financial bids of the technically responsive bidders shall be opened on the due date of opening. The Procurement Officer-Openers shall log on to the system in sequence and open the financial bids.
- 11.9 The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorised representative who wish to be present.
- 11.10 At the time of opening of “Financial Bid”, the names of the bidders whose technical bids were found responsive will be announced and the bids of only those bidders will be opened. The remaining bids will be rejected.
- 11.11 The responsive bidders’ name, the bid prices, the item wise rates, the total amount of each item in case the item rate tender and percentage above or less in case of percentage rate tenders will be announced. any discounts and withdrawals, and such other details as the officer inviting the tender may consider appropriate, will be announced by him or his authorized representatives at the time of opening.
- 11.12 Rebate/discount offer if any uploaded to the system shall be declared and recorded first.
- 11.13 The Financial bid of the bidders shall be opened one by one by the designated officers. The system shall auto-generate the Comparative statement.
- 11.14 The Bidder can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.
- 11.15 Procurement Officer-Openers shall sign on each page of the download BOQ and the Comparative

Statement and furnish a certificate to that respect.

- 11.16 System provides an option to Procurement Officer Publisher for reconsidering the rejected bid with the approval of concern Chief Engineer/ Head of Department.

## **12 CLARIFICATION AND NEGOTIATION OF BIDS:**

- 12.1 For examination, evaluation, and comparison of bids, the officer inviting the bid may, at his discretion, ask the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdowns of unit rates.
- 12.2 On opening of the price bid the system shall arrange the financial bids in order of their value (L1 first, followed by L2, L3 ...) for subsequent evaluation. The evaluation status (Sheet) will be visible to all the participating bidders after opening on their respective logins. Each activity is recorded in the system with date and time stamping.

## **13 NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:**

- 13.1 In the E-Procurement Portal, the system shall generate the template of award letter and the Officer Inviting the Bid shall mention the amount of Performance Security and additional security required to be furnished in the letter and intimate the bidders in his e-mail ID.
- 13.2 The Employer/ Engineer-in-Charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This letter of Acceptance will state the sum that the Engineer-in-Charge will pay the contractor in consideration of execution and completion of the works by the contractor as prescribed by the contract and the amount of performance security and Additional Performance Security required to be furnished. The issue of the letter of Acceptance shall be treated as closure of the Bid process and commencement of the contract.
- 13.3 The Contractor after furnishing the required acceptable Performance Security and Additional Performance Security, "Letter of Proceed" or "Work Order" shall be issued by the Engineer-in-Charge with copy thereof to the Procurement Officer-Publisher. The Procurement Officer-Publisher shall upload the summary and declare the process as complete.
- 13.4 If the L1 bidder does not turn up for agreement after finalisation of the tender then he shall be debarred from participation in bidding for three years and action will be taken to blacklist the contractor. In that case, the L2 bidder, if fulfils other required criteria would be called for drawing agreement for execution of work subject to condition that the L2 bidder negotiates at par with the quoted by the L1 bidder, otherwise the tender will be cancelled.

## **14 BLOCKING OF PORTAL REGISTRATION**

- 14.1 If the registration Certificate of the contractor is cancelled/ suspended by the registering authority/ blacklisted by the competent authority his portal registration shall be blocked automatically on receipt of information to that effect.
- 14.2 The portal registration blocked in the ground mentioned in the above Para- 11.1 shall be unblocked automatically in receipt of revocation order of cancellation/ suspension/ blacklisting from the concerned authority.
- 14.3 The Officer Inviting Tender shall make due inquiry and issue show cause notice to the concerned contractor who in turn shall furnish his reply, if any, within a fortnight from the date of issue of show cause notice. Thereafter the Officer Inviting Tender is required to issue an

intimation to the defaulting bidder about his unsatisfactory reply and recommend to the Chief Manager (Tech) for blocking of portal registration within 10 days of intimation to the defaulting bidder regarding his unsatisfactory reply with intimation to the Registering Authority and concerned Chief Engineer/ Heads of Office if any of the following provisions are violated.

- 14.4 Fails to furnish original Technical Documents before the designated officer within the stipulated date and time.
- 14.5 Backs out from the bid on any day after the last date of receipt of tender till expiry of the bid validity period (including till the extended bid validity period)
- 14.6 Fails to execute the agreement within the stipulated date.
- 14.7 If any of the information furnished by the bidder is found to be false/ fabricated/ bogus.
- 14.8 Accordingly, the officer Inviting Tender shall recommend to the Chief Manager (Tech) State Procurement Cell, Odisha for blocking of portal registration of bidder and simultaneously action shall also be initiated by OFFICER INVITING TENDER for blacklisting as per Appendix-XXXIV of OPWD code Volume-II.
- 14.9 The minimum period of blocking of Portal Registration shall in no case be less than 180 days.

1. EVALUATION CRITERIA (Clause-26.1 of ITB)

1.1 INTRODUCTION

Evaluation Criteria contains the broad criteria based on which the applicants shall be evaluated.

1.2 EVALUATION OF TECHNICAL BID (To be submitted in Cover-I)

Technical Bid will be evaluated based on financial standing, technical and organizational capability, experience and track record of the bidder. The bidder is required to submit all the necessary details including certificates from the client agencies in support of their qualification information.

CRITERIA FOR EVALUATION OF THE BIDDER FOR ELIGIBILITY

Sl. No	Attributes	Maximum Marks	Evaluation
(a)	<b>Financial strength</b>  (i) Minimum annual financial Construction Turnover 4.4 A (a) of the BID DATA SHEET	<b>20 marks</b>	60% marks for minimum eligibility criteria. 100% marks for twice the minimum eligibility criteria or more; in between (i) & (ii) – on pro-rata basis.
	(ii) Liquid Asset as per clause-4.4 B (c) of the BID DATA SHEET	<b>5 marks</b>	60% marks for minimum eligibility criteria. 100% marks for twice the minimum eligibility criteria or more; in between (i) & (ii) – on pro-rata basis.
(b)	<b>Experience in similar project works</b>  Refer clause 4.4 A.(b) of the BID DATA SHEET	<b>20 marks</b>	60% marks for minimum eligibility criteria 100% marks for twice the minimum eligibility criteria or more; in between (i) & (ii) – on pro-rata basis.
(c)	<b>DBR</b>  Design Basis Report should be as per Section – 8 and Annexure-III to ITB	<b>15 Marks</b>	Drawings: 5 Marks Specification of Works: 3 Marks Work Programme: 3 Marks Approach & Methodology: 4 Marks
(d)	<b>Personnel and Establishment<sup>4</sup></b>  Refer clause 4.2 (e) of ITB	<b>20 Marks</b>	Minimum Eligibility  The below mentioned CVs are to be submitted by the bidder in their technical proposal for evaluation. The need of adequate technical staff to execute the works is to be assessed by the bidder and deployed as per requirement.  (Total marks to be prorated to 20 marks from 100 marks below)

Sl. No	Attributes	Maximum Marks	Evaluation
i	Project Manager– 1 No Min 10 years of work experience	4	Qualification: Min. Graduation in Civil Engineering – 2 Marks Experience in Similar Project Construction / Supervision 5-10 years– 1 Mark More than 10 years - 2 Mark
ii	Structural Engineer – 1 No	3	Qualification Min. Graduation in Civil Engineering: 2 Marks Experience in Design of Building 5 - 10 years– 1 Mark
iii	Architect – 1 No	2	Qualification : Min. Graduation in Architecture – 1 Marks Experience in Similar works 3-5 years– 0.5 Mark More than 5 years - 1 Mark
iv	Site Engineer - 2 Nos	4 (2 Each)	Qualification Min. Graduation in Civil Engineering: 1 Mark Experience in Construction/ Supervision of Buildings: 5- 10 years– 1 Mark
v	Surveyor - 1 No.	2	Qualification Min. Diploma/ Graduation in Civil Engineering: 1 Mark Experience in similar nature of works 5- 10 years– 1 Mark
vi	Quality Control Engineer - 1 No	3	Qualification Min. Graduation in Civil Engineering: 2 Marks Experience in similar nature of works 5- 10 years– 1 Mark
vii	Quantity Surveyor - 1 No.	2	Qualification Min. Diploma/Graduation in Civil Engineering: 1 Mark Experience in similar nature of work more than 5 years– 1 Mark

Notes: - *The Key Personnels mentioned above in Personnel and Establishment head are minimum requirements for obtaining the marks for evaluation, however more nos. of key personnels may be engaged as per requirement for execution of the projects.*

(e)	<b>Plant &amp; Equipment<sup>5</sup></b> Refer clause 4.4 B (a) of ITB	<b>(20 Marks)</b>	
1.	Self Loading Concrete Mixture - 2 Nos.	4 Marks	
2.	Concrete Pump (30 Cum/hr) – 2 Nos.	2 Marks	
3.	Backhoe Loader (min. 1.3 Cum) – 2 No.	3 Marks	
4.	Vibratory Roller- 2 Nos.	1 Mark	

Sl. No	Attributes	Maximum Marks	Evaluation
5.	Tipper- 25 T capacity – 4 Nos.	Minimum 2 Nos – 1 Mark Maximum 4 Nos or more-2 Marks	
6.	D G Set 100 KVA – 2 Nos.	1 Mark	
7.	Steel Centering & shuttering-1000 Sqm	500-1000 sqm- 1.5 Marks More than 1000 sqm- 3 marks	
8.	Needle Vibrator- 2 Nos.	2 Marks	
9.	Plate vibrator - 2 Nos	2 Marks	
	<b>Total</b>	<b>20 Marks</b>	

<sup>4</sup> Qualification and Experience shall be on the respective branch of engineering/discipline only.

<sup>5</sup> The item & quantity of plant & machinery indicated above is minimum. However, the bidder is to provide their own estimate of the number of equipment, commensurate with their work plan and methodology. The bidder to fill up the table based on its assessment of requirement of the project to be completed within the stipulated time period.

The bidders qualifying the initial criteria as set out will be evaluated for following criteria by scoring method based on details furnished by them.

S. No.	Criteria	Maximum Marks
a	Financial Strength	25
b	Experience in Similar Nature of work during last 5 years	20
c	DBR	15
d	Personnel and Establishment	20
e	Plant & Equipment	20
	<b>Total Marks</b>	<b>100</b>

**1.2.1** The bidders who qualify as per Clause 1 above, securing minimum 60% marks in each category with overall minimum of **70 marks out of 100** only will be asked to make a technical presentation regarding the contents of Cover-III (DBR), before a committee on the scheduled date and time (to be intimated to the qualified bidders by post / E-mail).

### 1.3 CRITERIA FOR EVALUATION OF THE BIDDER FOR TECHNICAL PRESENTATION

(Submitted in Cover – III)

Presentation will be inclusive of Questions and Answer session. The bidder will be required to give presentations on similar nature of works completed by the Agency, capacity building and success stories with respect to technology and timely completion.

Sl.No	Parameters	Maximum Marks
1	<b>Planning:</b> Overall Planning should take into consideration the Following a. Bidder's understanding of the Concept plan apart from the DBR provided in the RFP. b. Innovation in Preliminary detailing of the entire project and site plan c. Use of new Technology d. Use of different types of material	40
2	Approach & Methodology for timely completion of the project and to overcome challenges, if any	20
3	Past Experience & Success Stories	40
	<b>Total marks</b>	<b>100</b>

- 1.3.1 The Bidder shall score minimum 70% marks in each category of the above table and 80% in total to qualify for financial proposal opening.
- 1.3.2 Evaluation of the bid will be based on qualification of bidder in the criteria as mentioned in Sl.1.2 and 1.3 above, taken together.
- 1.3.3 The results of evaluation of technical bid and technical presentation shall be published in the e-Procurement portal.

**DESIGN BASIS REPORT (DBR)**

The Bidder shall furnish the **Design Basis Report (DBR)** in Cover-III for the as indicated in this Annexure. The intent of this DBR is to present the salient features of technical considerations and scope of work envisaged by the bidder for the project, based on which the bidder has made its financial offer. The bidder shall make sure that the DBR should cover sections on Architectural, civil, structural, electrical, public health engineerings and landscaping aspects. The individual report shall contain, but not limited to, the following:

***Drawings:***

- i Architectural Drawings
- ii Structural Drawings
- iii Typical Cross Section

***Design Standard & Methodology:***

- i Design Specification
- ii Construction Methodology

***Work Programme:***

- i Detailed Construction Work Programme
- ii Equipment and Manpower Planning

***Quality Assurance Plan:***

- i Detailed Quality Assurance Plan for the Project

## BID DATA SHEET

Clause No.	Item	Description / Clarification
<b>A. GENERAL INSTRUCTIONS</b>		
1.1	Employer	<p><b>The Managing Director, Odisha Bridge &amp; Construction Corporation Ltd, State of Odisha</b></p> <p>Address:  Vikash Bhawan, Nayapalli, Bhubaneswar-751012  Phone No. 0674-239-4093/6309/0043  Fax: 0674-2396326  Email: md@obcc.in  Official website: <a href="https://tendersodisha.gov.in">https://tendersodisha.gov.in</a></p>
1.1	Scope of Bid	<p><b>“Construction of School Buildings under Godabarisha Mishra Adarsha Prathamika Vidyalaya Scheme at Pandua (Model-I) &amp; at Madanpur (Model-I) in the District of Keonjhar, Odisha on Turnkey basis.”</b></p>
2	Source of Funds	<p>The expenditure on this project shall be met from the budget of Government of Odisha.</p>
3.1	Eligible Bidders	<p>Only Reputed Indian firms [<i>It is meant for the Indian Firm having reputation in the specific area of operation for which tender is being invited</i>] are allowed to apply for this Project.</p> <p>Class of Contractor:</p> <p><b>‘A’ Class or ‘Special’ Class</b> (Government of Odisha Registration) or equivalent of other State Governments / Government of India / MES / Railways for execution of Civil works in general and Road, Bridge &amp; Building work in particular.</p> <p>In case of successful bidders being not registered in “Super Class” under Government of Odisha, shall have to be registered as Super Class Contractor under Odisha PWD within 3 months’ time from execution of agreement failing which no payment shall be released till registration process is completed.</p>
4.2 (b)	Qualification of the Bidder	<p>Financial Construction Turnover from Civil Construction Works shall only be considered, as mentioned in Cl. 4.4. A (a) of Bid Data</p>
4.2 (c)	Qualification of the Bidder	<p>Experience of successful completion of works / substantial completion of works (<i>90% of the value of the contract to be considered as substantial completion</i>) as referred in Bid Data Sheet Cl. 4.4.A(b)</p> <p><b><i>Similar Works shall mean Infrastructure Development works pertaining to Composite Building works.</i></b></p> <p>The bidder must furnish the list of such works in the proforma stated</p>

		in Cl. 1.3.1. in Section 2 (Qualification Information).
4.2 (j)	Sub-Contracting	<p>Subcontracting components of the works shall be limited to 30% of the Contract Price. Maximum number of Sub-Contractors allowed is <b>TWO</b>.</p> <p>Work Experience, Equipment and Personnel of these specified Sub-Contractors shall <b>NOT</b> be considered while evaluating the proposal of the Bidder under Cl. 4.4.</p> <p>The total limit of Sub-Contracting under the Contract is specified in Clause 7 of Conditions of Contract in Section 3 read with Contract Data in Section 4.</p>
4.2 (k)	Methodology and Programme	Bidder shall provide these details in the Cover - III as mentioned in Cl.12.1 of this Section-I.
4.3	Bids from Joint ventures	Bids from Joint ventures / Consortiums / Association of Parties are not acceptable.
4.4. A (a)	Minimum Annual Financial Construction Turnover	<p>i. Shall have an annual minimum turnover of <b>Rs 20.20 Crores</b> in <i>Civil Construction works</i> certified by chartered accountant during any year in the last five financial years ending 31.03.2026. {Please note that stand-alone financial figures of the Applicant only shall be considered for evaluation} Financial turnover of previous financial years shall be given weightage of 10% (ten percent) per year based on rupee value to bring them to the price level up to the year of bid invitation.<sup>4</sup></p> <p>ii. The Firm should demonstrate making profit during <b>any three financial</b> years, in the <b>last five financial years</b> ending on 31.03.2026.</p> <p>iii. Should have valid PAN and GSTIN</p>

<sup>4</sup> Bid invitation year 2026-27, Updation Factors:

<u>Year Before</u>	<u>Updation factor</u>
One	1.10
Two	1.21
Three	1.33
Four	1.46
Five	1.61

4.4. A (b)	<b>Experience in similar project* works</b>	<p>Experience of successful completion of Work:</p> <p>(a) Satisfying any one of the following criteria for <b>Similar Works</b><sup>5</sup> during last 5 years prior to the bid invitation date. Cost of completed works of previous financial years shall be given weightage of 10% (ten percent) per year based on rupee value to bring them to the price level up to the year of bid invitation.<sup>6</sup></p> <p><b>One Similar Work of minimum Rs. 8.10 Cr.</b></p> <p><b>or</b></p> <p><b>Two Similar Works of minimum Rs. 5.10 Crores each. or</b></p> <p><b>Three Similar Works of minimum Rs. 4.10 Crores each</b></p> <p><i>Please note that: -</i></p> <p>(i) <i>Experience of holding companies, associate companies, subsidiaries, and sister concerns shall not be considered for evaluation.</i></p> <p>(ii) <i>All work orders / completion certificates submitted should be in the name of the Applicant.</i></p> <p>(iii) <i>For private sector projects, completion certificate with TDS shall be submitted.</i></p> <p>(iv) <i>Work experiences as a Subcontractor / nominated subcontractor shall not be considered as Experiences of Similar Projects</i></p>
4.4. A (c)	Minimum Quantities	Not applicable
4.4 A (d)	Construction, Planning and Methodology	Bidder shall provide these details in the Cover - III as mentioned in Cl.12.1 of this Section-I.

<sup>5</sup> Similar Works shall mean Infrastructure Development works pertaining to Composite Building works.

<sup>6</sup> Bid invitation year 2026 -27, Updation Factors:

<u>Year Before</u>	<u>Updation factor</u>
One	1.10
Two	1.21
Three	1.33
Four	1.46
Five	1.61

4.4B. (a)	Equipment	Self Loading Concrete Mixture (30 Cum/hr) - 2 Nos.
		Concrete Pump (30 Cum/hr) – 2 Nos.
		Backhoe Loader (min. 1.3 Cum) – 2 No.
		Vibratory Roller- 2 Nos.
		Tipper- 25 T capacity – 4 Nos.
		D G Set 100 KVA – 2 Nos.
		Steel Centering & shuttering-1000 Sqm
		Needle Vibrator- 2 Nos.
		Plate vibrator - 2 Nos
4.4. B. (a)	Non-Availability of Equipment	In case of non-availability of any of the plants and equipment the bidders should submit a lease letter/commitment letter/ agreement (notarized) from the rightful owner.
4.4. B. (c)	Liquid Assets	Liquid assets or availability of fund based credit facilities/ over draft facility of not less than the amount of <b>Rs. 3.40 crores</b> .
4.5	Sub-contractors' experience and resources:	Please replace the existing paragraph 4.5 as below: Sub-contractors' experience and resources shall not be considered in determining the bidder's compliance with the qualifying criteria.
4.6	Bid Invitation Year	2026-27
4.6	Period of Project	9 Months [N = 1]
<b>B. BIDDING DOCUMENTS</b>		
9.2	Pre-Bid Meeting	Pre-bid meeting shall be held on <b>30.05.2026 at 12.30 P.M</b> through video conference mode. Via link: <a href="https://meet.google.com/mgg-sfmr-ype">https://meet.google.com/mgg-sfmr-ype</a> . The bidder shall make the queries through email on or before <b>29.05.2026 by 5 P.M.</b>  Clarifications to the above will be uploaded on the tender portal of govt of Odisha <a href="https://tendersodisha.gov.in">https://tendersodisha.gov.in</a>
10.2	Amendment of Bidding Documents	Any Addendum / Corrigendum/ Cancellation of tender shall be published in the website  <a href="https://tendersodisha.gov.in">https://tendersodisha.gov.in</a> only and such notice shall form part of the bidding documents.
10.3	Amendment of Bidding Documents	Employer may extend as necessary the deadline for submission of bids
10.4	Amendment of Bidding Documents	Addendum/ corrigendum shall also be available in the Official website.

C. PREPARATION OF BIDS		
12.1	Documents Comprising the Bid	<p>In addition to online submission of Cover-I and Cover-II, the bidder shall also submit online and offline the soft copies (pdf format) of Cover III &amp; Cover IV.</p> <p>A set of hard copies of the documents and original financial instruments furnished in Cover –III &amp; Cover-IV shall be submitted to the Employer, either by post / courier or in person by the date and time mentioned in this section.</p> <p>The bidder shall furnish the <u>Design Basis Report (DBR) in Cover-III</u>, as per the details provided at <u>Annexure III to ITB</u>, at the end of this Section-I.</p> <p><b><u>The Bidder shall furnish the following documents in Cover-IV:</u></b></p> <ol style="list-style-type: none"> <li>i. Bid Security Fee remitted through Bank Guarantee.</li> <li>ii. Non-refundable Bid Processing Fee remitted through Demand Draft</li> </ol>
13.2	Bid Price	<p>Replace the contents of the Clause with the following.</p> <p><b><i>The bidder shall fill the total bid price in figures online as Lump Sum Price.</i></b></p> <p>The total bid price shall be excluding GST on Works Contract. GST on Works Contract shall be paid by the Employer extra as applicable.</p> <p><b>No price variation on any account is payable under this contract.</b></p>
15.1	Bid Validity	Bids shall remain valid for a period of <b>120 days</b> after the due date for bid submission
16.1	Bid Security	<p>The paragraph is replaced with the following:</p> <p>The Bidder shall furnish, as part of his Bid, a <b>Bid security as Earnest Money deposit (EMD) for an amount of Rs.10,06,000/-</b> (Rupees Ten Lakh Six Thousand) only for this particular work in shape of online Bank transfer from any Nationalized Bank/ Schedule Bank having Branch at Bhubaneswar..</p> <p><b><u>Bid Processing Fee:</u></b></p> <p>The Bidder shall furnish a non-refundable Bid Processing Fee amounting to <b>₹ 11,800/-</b> (amount inclusive of GST) online.</p>
18	Format and Signing of Bid	Deleted as submission of bids is through online using DSC
D. SUBMISSION OF BIDS		
19	Sealing and Marking	In addition to online submission of Cover-I and Cover-II, the bidder shall also submit online the soft copies (pdf format) of the documents

	of Bids	<p>to be furnished in Cover –III &amp; Cover-IV.</p> <p>A set of hard copies of the documents and original financial instruments furnished in Cover –III &amp; Cover-IV shall be submitted to the Employer in sealed covers, either by post / courier or in person by the date and time mentioned in this section</p> <p>The hard copies of Cover-III &amp; Cover-IV shall be addressed to the Employer in the address provided in the Clause-1.1 of the ITB, bear the name and identification number provided in of IFB and superscripted “COVER-.....(NOT TO BE OPENED BEFORE .....Hours[TIME] on .../.../..... [DATE])”.</p>
20.1	Bid Submission	<p>In addition to online submission of Cover-I and Cover-II, the bidder shall also submit online the soft copies (pdf format) of the documents to be furnished in Cover –III.</p> <p>Time and date of online submission is on or before <b>5:00 PM on 24.06.2026.</b></p> <p>For Cover-III &amp;IV (hard copy), time and date of offline submission is on or before <b>5:00 PM of 29.06.2026</b> in the office of the Employer.</p> <p>The sealed covers (Cover-III &amp; Cover-IV) sent through post / courier /in person, must physically reach the Employer by the stipulated date and time. <i>The Employer shall bear no liability for any delay or loss or damage of the above documents during transit and in such event the bid shall stand rejected summarily and no request in any form from any Bidder shall be entertained on this ground.</i></p>
<b>E. BID OPENING &amp; EVALUATION</b>		
23.1	Bid Opening	<p>All the bids received shall be opened in the Office of the Managing Director, Odisha Bridge &amp; Construction Corporation Ltd, Vikash Bhawan, Nayapalli, Bhubaneswar-751012 on <b>24.06.2026 at 05.30 PM.</b></p>
26.1 (b)	Bid Security and Bid Processing Fee	<p>Read the Sub-Clause as:</p> <p>(b) Is accompanied by the required bid processing fee &amp; Bid Security Fee / EMD;</p>
26.1 (c)	Substantial Responsiveness (Technical Evaluation)	<p>Read the Sub-Clause as:</p> <p>(c) Is substantially responsive to the requirements of the bidding documents and qualified in the evaluation procedure set-forth in Annexure – II to ITB. (Eligibility and Technical Presentation)</p> <p>If there is a discrepancy between the information provided in the soft copy submitted in online mode and the hard copies submitted by the Bidder relating to Cover -I and II, the information provided in online</p>

		mode shall prevail and the bidder's qualification shall be evaluated accordingly.																						
26.1 (e)	Financial Evaluation (Negotiation)	Read the Sub-Clause as:  (e) The "Financial Bids" of the responsive bidders shall be opened online. During detail evaluation of the "Financial Bid" of the lowest evaluated bidder, the responsiveness of the bid will be further examined and if required, the bidder shall be asked to clarify its offer through further negotiation.																						
<b>F. AWARD OF CONTRACT</b>																								
31.3	Notification of Award & Signing of Agreement	The following is added below the paragraph:  The Bidder shall submit a detail resource-based work program using standard software (Primavera/MS Projects) and a 'S' Curve showing monthly cash flow forecast for the Works, within 14 days of issue of the Letter of Acceptance of tender which shall form part of the contract.  The Project Completion Schedule must contain the Project Mile Stones mentioned in Cl. 45.1 of Contract Data.																						
32.1	Performance Security	The Bidder shall furnish, Performance Security for this particular work in the form of <b>e-Bank Guarantee</b> from any Public Sector/Private Sector Banks listed below, <b>Payable by its Branch at Bhubaneswar</b> in favour of the Managing Director, OB & CC Ltd, Payable at Bhubaneswar.  Being a Turn-Key Assignment, no additional Performance Security shall be required to be deposited by the selected bidder.  <b>List of Banks</b>																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;"><u>Public Sector Banks</u></th> <th style="text-align: left; padding: 5px;"><u>Private Sector Banks</u></th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">1. Canara Bank,</td> <td style="padding: 5px;">11.ICICI Bank</td> </tr> <tr> <td style="padding: 5px;">2.Punjab National Bank,</td> <td style="padding: 5px;">12. Axis Bank Ltd</td> </tr> <tr> <td style="padding: 5px;">3. State Bank India,</td> <td style="padding: 5px;">13. HDFC Bank</td> </tr> <tr> <td style="padding: 5px;">4. Union Bank of India,</td> <td style="padding: 5px;"><u>RRBs and OSCB</u></td> </tr> <tr> <td style="padding: 5px;">5.Bank of India,</td> <td style="padding: 5px;">14.Utkal Grameen Bank</td> </tr> <tr> <td style="padding: 5px;">6. Bank of Baroda,</td> <td style="padding: 5px;">16.Odisha Gramya Bank</td> </tr> <tr> <td style="padding: 5px;">7. UCO Bank</td> <td style="padding: 5px;">17.Odisha State Co-operative Bank.</td> </tr> <tr> <td style="padding: 5px;">8.Indian Bank</td> <td></td> </tr> <tr> <td style="padding: 5px;">9.Indian Overseas Bank</td> <td></td> </tr> <tr> <td style="padding: 5px;">10.Central Bank of India</td> <td></td> </tr> </tbody> </table>			<u>Public Sector Banks</u>	<u>Private Sector Banks</u>	1. Canara Bank,	11.ICICI Bank	2.Punjab National Bank,	12. Axis Bank Ltd	3. State Bank India,	13. HDFC Bank	4. Union Bank of India,	<u>RRBs and OSCB</u>	5.Bank of India,	14.Utkal Grameen Bank	6. Bank of Baroda,	16.Odisha Gramya Bank	7. UCO Bank	17.Odisha State Co-operative Bank.	8.Indian Bank		9.Indian Overseas Bank		10.Central Bank of India	
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33	Advance Payment and Security	The paragraph is replaced as under:																						

		<p>The Employer shall make advance payment to the Contractor of the amounts stated in the Contract Data by the date stated in the Contract Data, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a Bank acceptable to the Employer in amounts and currencies equal to <b>110 (hundred ten) %</b> the advance payment.</p> <p>The advance shall carry 10% ( Ten) interest.</p>
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**SECTION 2**  
**FORMS OF BID**

**TABLE OF FORMS:**

- 1. CONTRACTOR'S BID**
- 2. QUALIFICATION INFORMATION**
- 3. BANK CERTIFICATE**
- 4. AFFIDAVIT**
- 5. CERTIFICATE OF NO RELATIONSHIP**
- 6. INFORMATION REGARDING ANY CONFLICTING ACTIVITIES AND  
DECLARATION THEREOF**
- 7. CV FORMAT**
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## **1. CONTRACTOR'S BID**

*[This is a mandatory form to be submitted by the bidder on their letterhead, failing which the bid is liable for rejection]*

**DESCRIPTION OF THE WORKS: “ Construction of School Buildings under Godabarisha Mishra Adarsha Prathamika Vidyalaya Scheme at Pandua (Model-I) & at Madanpur (Model-I) in the District of Keonjhar, Odisha on Turnkey basis ”**

To:

**The Chief Engineer- I**  
Odisha Bridge & Construction Corporation  
Ltd. Vikas Bhawan, Nayapalli  
Bhubaneswar-751012

Gentlemen,

Having examined the bidding documents including addendum/corrigendum, I / we offer to execute the Works described above in accordance with the conditions of contract, specifications, accepted tendered drawing, and Payment schedule accompanying this Bid for the Contract Price as tendered in our price bid document separately.

This Bid and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.

We undertake that, in competing for (and if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely “Prevention of Corruption Act 1988”.

We hereby confirm that this Bid complies with the Bid Validity and Bid Security required by the Bidding documents. We attach herewith our current income-tax clearance certificate.

Yours faithfully,

\_\_\_\_\_  
Authorized Signature:

Name & Title of

Signatory: Name of

Bidder:

Address:

Email-id:

Contact No:

Stamp:

## **2. QUALIFICATION INFORMATION**

*[This is a mandatory form to be submitted by the bidder on their letterhead, failing which the bid is liable for rejection]*

The information to be filled in by the Bidder in the following pages will be used for purposes of qualification as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract.

### **1. Information of the Bidder**

#### **1.1 Constitution or legal status of Bidder *as per ITB Clause 4.2 (a)***

***[Attach copy]***

Place of registration: \_\_\_\_\_

Principal place of business: \_\_\_\_\_

Power of attorney of signatory of Bid

***[Attach]***

#### **1.2 Financial Turnover of the bidder during the last five financial years duly certified by the registered chartered accountant. (in **Rs. Crores**) *as per ITB Clause 4.2 (b)***

#### **1.3.1 Work performed as prime contractor (in the same name) on project works over the last five financial years. \*\***

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Project Name@	Name of the Employer*	Description of work	Contract No.	Value of contract (In Rs. Crores)	Date of issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay and work completed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

---

*\*Attach certificate (s) from the Engineer(s)-in-Charge*

*@The item of work for which data is requested should tally with that specified in ITB clause 4.2(c) read with Bid Data Sheet.*

*\*\* Immediately preceding the financial year in which bids are received.*

#### **1.1 Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.**

(A) Existing commitments and on-going works:

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Description	Place &	Contract	Name and	Value of	Stipulated	Value of	Anticipated
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of Work	State	No. & Date	Address of Employer	Contract (In Rs. Crores)	period of completion	works* remaining to be completed (In Rs. Crores)	date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(B) Works for which bids already submitted:

Description of Work	Place & State	Name and Address of Employer	Estimated value of works (In Rs Crores)	Stipulated period of completion	Date when decision is expected.	Remarks if any
(1)	(2)	(3)	(4)	(5)	(6)	(7)

\* Attach certificate(s) from the Engineer(s)-in-Charge.

1.2 The following items of Contractor's Equipment are essential for carrying out the Works. The Bidder should list all the information requested below. Refer also to Sub Clause 4.2(d) read with 4.4 (B) of the Instructions to Bidders.

Item of Equipment	Requirement	Availability Proposals		Age/Condition	Remarks (From whom to be purchased)
	No.	Nos./Capacity	Owned/Leased		

1.3 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer also to 4.2(e) read with annexure of instructions to Bidders and Sub Clause 9.1 of the Conditions of Contract.

experience in Position proposed position.	Name	Years of Qualifications	Years of experience	the
---	------	-------------------------	---------------------	-----

(From DD-MM-YY to DD-MM-YY)

Project Manager etc.

1.4 Proposed subcontracts and firms involved. [Refer ITB Clause 4.2 (j)]

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Sections in of the works work	Value of Sub-contract	Sub-contractor (name and address)	Experience similar
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1.5 Financial reports for the last five financial years: balance sheets, profit and loss statements, auditors' reports (in case of companies/corporation), etc. List them below and attach copies. [Refer ITB Clause 4.2 (f)]

1.6 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of support documents *[sample format attached]*. [Refer ITB Clause 4.2 (g)]

1.10. Name, address, and telephone, telex, and fax numbers of the Bidders' Bankers who may provide references if contacted by the Employer. [Refer ITB Clause 4.2 (h)]

1.11 Information on litigation, arbitration, debarment, termination, notice for recession of contract, abandonment of work history in which the Bidder is involved. [Refer ITB Clause 4.2 (i)]

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Employer Name and Contact    Description of Work Agreement No.    Status & matter of dispute and/or issues

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1.12 Statement of compliance under the requirements of Sub Clause 3.2 of the instructions to Bidders.

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- 1.13 The Bidder MUST SUBMIT THE DRAWINGS, DESIGN BRIEF REPORT, WORK PROGRAMME & QUALITY PLAN IN COVER-III as necessary for the works [As per the provisions of ITB Clause 4.1, 4.2 (k) and 4.4 A (d)].
- 1.14 The Bidder shall furnish the Bid Security in shape of e-Bank Guarantee & Non-refundable Bid Processing Fee in shape of Demand Draft (as mentioned in Clause 16.1) in Cover-IV:

1.15 Affidavit by the bidder duly signed by the Notary Public

\_\_\_\_\_  
Authorized Signature:  
Name & Title of Signatory:  
Name of Bidder :  
Stamp:

**3. BANK CERTIFICATE**

*[To be issued by bidder's bank on bank's letterhead and submitted by the bidder]*

This is to certify that M/s.....is a reputable company with a good financial standing.

If the contract for the work, namely "*insert name of the work*" on turn-key basis involving design and execution of works is awarded to the above firm, we shall be able to provide overdraft/cash credit facilities to the extent of Rs. .... to meet their working capital requirements for executing the above contract.

Name of Bank:

Name of Senior Bank

Manager: Address of the

Bank:

e-mail id:

**4. AFFIDAVIT**

*[To be submitted by the bidder in a non-judicial stamp paper duly signed by the Notary Public]*

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
  
2. The undersigned also hereby certifies that neither our firm M/s.....  
..... have abandoned any work on building in India nor any contract awarded to us by the State of Odisha for such works have been rescinded during last five years prior to the date of this bid.
  
3. The undersigned hereby authorize(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
  
4. The undersigned understand and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the Department/ project implementing agency.

\_\_\_\_\_  
Authorized Signature:  
Name & Title of  
Signatory: Name of  
Bidder :  
Stamp:

## **5 CERTIFICATE OF NO RELATIONSHIP**

I/We hereby certify that I/We\* am/are\* related/not related(\*) to any officer of OBCC and P.W.D of the rank of Assistant Executive Engineer & above and any officer of the rank of Under Secretary and above of the Works Department, Govt. of Orissa I/We\* am/are\* aware that, if the facts subsequently proved to be false, my/our\* contract will be rescinded with forfeiture of E.M.D and security deposit and I/We\* shall be liable to make good the loss or damage resulting from such cancellation.

I//We also note that, non-submission of this certificate will render my / our tender liable for rejection.

**(\*) - Strike out which is not applicable \_\_\_\_\_**

Authorized Signature:

Name & Title of Signatory:

Name of Bidder :

Stamp:

Date: -

*Please Note - The contractor shall furnish a certificate along with the tender to the effect that he is not related to any officer in the rank of an Assistant Executive Engineer & above in OBCC or the state P.W.D. or Under Secretary & above in the Works Department. If the fact subsequently proved to be false, the contract is liable to be rescinded. The earnest money & the total security will be forfeited & he shall be liable to make good the loss or damages resulting for such cancellations. The proforma for no relationship certificate is given above.*

**6 INFORMATION REGARDING ANY CONFLICTING ACTIVITIES AND DECLARATION  
THEREOF**

*Are there any activities carried out by your firm / company? If yes, please furnish details of any such activities.*

If no, please certify,

**IN BIDDER' S LETTER HEAD**

I, hereby declare that our firm as Individual is not indulged in any such activities which can be termed as the conflicting activities.

I, also acknowledge that in case of misrepresentation of any of the information, our proposal / contract shall be rejected / terminated by the Client which shall be binding on us.

**Authorized Signatory [In full initials with Date and Seal]:** \_\_\_\_\_

**Communication Address of the Bidder:** \_\_\_\_\_

*Conflicting activities means- The existence of any potential conflict of interest on the part of the bidder due to prior, current, or proposed agreements, engagements, or affiliations with the Client.*

**7. CV FORMAT**

<b>Position Title</b>	
<b>Name of Expert:</b>	

**Employment and Education record relevant to the assignment:**

<b>Total Years of Experience</b>	<b>Relevant years of Experience</b>	<b>Education Qualification with Name of the Institution and year of passing</b>	<b>Name of the Project with duration and activities performed relevant to the Assignment.</b>		
			<b>Name of project</b>	<b>Duration (From DD-MM- YY to DD-MM-YY)</b>	<b>Brief description of project and nature of responsibility</b>

\* Bidders need to provide educational qualification certificates to support the qualification criteria.

**8 LETTER OF ACCEPTANCE**

*[To be issued to successful bidder on Letterhead of OBCC]*

\_\_\_\_\_ [date]

To: \_\_\_\_\_ [name and address of the Contractor]\_\_\_\_\_

Dear Sir(s)

This is to notify you that your Bid dated\_\_\_\_\_ for execution of the work "*[ insert name of the work ]*" on turn key basis involving design and execution of works— *[Name of the contract and identification number, as given in the Instructions to Bidders]* for the Contract Price of Rupees

\_\_\_\_\_ (\_\_\_\_\_) [amount in words and figures], as corrected and modified<sup>1</sup> in accordance with the Instructions to Bidders<sup>1</sup> is hereby accepted by our Agency.

We note that as per bid, you do not intend to subcontract any component of work. (Or)

We note that as per bid, you propose to employ \_\_\_\_\_ as sub-contractor for executing \_\_\_\_\_

*(Delete whichever is not applicable)*

You are requested to furnish the detailed Work Program and milestone wise activity as per Para 31.3 of ITB to complete the contract negotiation within 14 days of this Letter of Award. Further, you are hereby requested to furnish Performance Security in the form detailed in Para 32.1 of ITB for an amount of Rs ..... within **21** days of the receipt of this Letter of Acceptance and sign the contract failing which action as stated in Para 31.5 and Para 32.3 of ITB will be taken.

Yours faithfully,

\_\_\_\_\_  
Authorized Signature  
Name and Title of  
Signatory Name of Agency

<sup>1</sup> Delete "corrected and" or "and modified" if only one of these actions applies. Delete "as corrected and modified in accordance with the Instructions to Bidders" if corrections or modifications have not been effected.

9. **NOTICE TO PROCEED WITH THE WORK**

*[To be issued on Letterhead of OBCC]*

To

\_\_\_\_\_ (date)

\_\_\_\_\_ (name and address of the Contractor)

\_\_\_\_\_

\_\_\_\_\_

Dear Sirs:

Pursuant to your furnishing the requisite security as stipulated in ITB clause 32.1 and signing of the contract agreement for the work "*[ insert name of the work]*" on turnkey basis involving design and execution of works @ a Bid Price of Rs. \_\_\_\_\_, you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

Authorized Signature  
Name and Title of  
Signatory Name of Agency

**10 AGREEMENT FORM**

*[To be executed on stamp paper of appropriate value]*

**Agreement**

This agreement, made the \_\_\_\_\_ day of \_\_\_\_\_ 2026 between

\_\_\_\_\_  
\_\_\_\_\_ [name and address of Employer]  
(hereinafter called “the Employer”) of the one part and \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_ [name and address of contractor] (hereinafter called “the Contractor”) of the other part.

Whereas the Employer is desirous that the Contractor “[ insert name of the work], [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 contract price of Rs.....

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings 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 the 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 read and construed as part of this Agreement, viz.:
  - i) Letter of Acceptance
  - ii) Notice to proceed with the works
  - iii) RFP and Corrigenda
  - iv) Contractor’s Bid
  - v) Contract Data
  - vi) Conditions of contract (including Special Conditions of Contract)
  - vii) Specifications
  - viii) Drawings
  - ix) Bill of Quantities (Optional)
  - x) Payment Schedule and

- xi) Any other document listed in the Contract Data as forming part of the contract.

In witness whereof the parties thereto 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 Contract

**SECTION 3:**  
**CONDITIONS OF CONTRACT**

## Conditions of Contract

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## CONDITIONS OF CONTRACT

### A. GENERAL

#### 1. Definition

- 1.1. Terms which are defined in the Contract Data and not defined in the Conditions of Contract shall keep their defined meanings. Capital initials are used to identify defined terms.
  - 1.1.1 **Bill of Quantities** means the priced and completed Bill of Quantities.
  - 1.1.2 **Compensation Events** are those defined in Clause 41 hereunder.
  - 1.1.3 The **Completion Date** is the date of completion of the Works as certified by the Engineer in accordance with clause 50.
  - 1.1.4 The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.
  - 1.1.5 The **Contract Data** defines the documents and other information which comprise the Contract.
  - 1.1.6 The **Contractor** is a person or corporate body whose Bid to carry out the Works has been accepted by the Employer [obligations of the Contractor mentioned in the Contract Data].
  - 1.1.7 The **Contractor's Bid** is the complete Bidding document submitted by the Contractor to the Employer and includes Technical and Financial bids.
  - 1.1.8 The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.
  - 1.1.9 **Days** are calendar days; months are calendar months.
  - 1.1.10 A **Defect** is any part of the Works not completed in accordance with the Contract.
  - 1.1.11 The **Defects Liability Period** is the period named in the Contract Data and calculated from the Completion Date.
  - 1.1.12 The **Employer** is the party who will employ the Contractor to carry out the Works; [As mentioned in the Contract Data].
  - 1.1.13 **The Engineer** is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor's work, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, recommending extensions of time, and valuing the Compensation Events.
  - 1.1.14 **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
  - 1.1.15 **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.
  - 1.1.16 **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Employer by issuing an extension of time.

- 1.1.17 **Materials** are all supplies, including consumables, used by the contractor for incorporation in the Works.
- 1.1.18 **Plant** is any integral part of the Works, which is to have a mechanical, electrical, electronic or chemical or biological function.
- 1.1.19 The **Site** is the area defined as such in the Contract Data.
- 1.1.20 **Site Investigation Reports** are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.
- 1.1.21 **Specification** means the Specification of the works included in the Contract and any modification or addition made or approved by the Employer.
- 1.1.22 The **Start Date / Date of Commencement** is given in. the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.
- 1.1.23 A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- 1.1.24 **Temporary Works** are works designed, constructed, installed, and removed by the Contractor, which are needed for construction or installation of the Works.
- 1.1.25 A **Variation or Change in Scope** is an instruction given by the Employer, which varies and changes the scope of Works.
- 1.1.26 **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.
- 1.1.27 Year may be understood as financial year.
- 1.1.28 **“Approved Make”** means makes of items as specified in the “List of Approved Makes/Approved Manufacturers” in Section 8 of this RFP. However, a higher or equivalent make can be utilized after obtaining prior approval of “Engineer-In-Charge” in writing.

## 2. Interpretation

- 2.1. In interpreting the Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their general meaning under the language of the Contract unless specifically defined. The Employer will provide instructions clarifying queries about the Conditions of Contract.
- 2.2 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion date for the whole of the Works).

- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
- (a) Agreement
  - (b) Letter of Acceptance, notice to proceed with the works.
  - (c) Contractor's Bid
  - (d) Contract Data
  - (e) Conditions of Contract including Special Conditions of Contract
  - (f) Specifications
  - (g) Drawings
  - (h) Bill of quantities (optional) and
  - (i) Any other document listed in the Contract Data as forming part of the Contract.

**3. Languages and Law**

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

**4. Engineer's Decisions:**

Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer as per the provision of the contract.

**5. Delegation:**

The Engineer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

**6. Communications:**

Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

**7. Sub-contracting:**

The Contractor may sub-contract any portion of work, up to a limit specified in Contract Data, with the approval of the Engineer but may not assign the Contract without the approval of the Employer in writing. Sub-contracting does not alter the Contractor's obligations.

**8. Other Contractors:**

The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of other Contractors. The Contractor shall, as refer to in the Contract Data, also provide facilities and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

**9. Personnel:**

9.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data besides those as listed at section-8 and Section-9 to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

9.2. If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

**10. Employer's and Contractor's Risks:**

The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

**11. Employer's Risks:**

The Employer is responsible for the excepted risks which are in so far as they directly affect the execution of the Works in India, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive.

**12. Contractor's Risks:**

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

### 13. Insurance:

- 13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover *for the period as stated below against the events and* in the amounts and deductibles stated in the Contract Data for the following events, which are due to the Contractor's risks:
- A) **From the starting date to the end of defect liability period:**
- (a) Loss of or damage to the works
- B) **From the start date till completion of the work as per agreement:**
- (a) Loss of or damage to plant, materials and equipment,
  - (b) Loss of or damage of property (except the works, plant, materials and equipment) in connection with the contract, and
  - (c) Personal injury or death.
- 13.2 If all the items as listed at Cl.13.1(B) can be combined / grouped under one insurance cover like Contractor's, All Risks (CAR) Policy **covering all-natural calamities as per local conditions.**
- 13.3 Prior to seven days before the start date, the Contractor shall furnish to the Engineer notarized true copies of the certificates of insurance, copies of insurance polices and premia payment receipts in respect of such insurance for the Employer's approval. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 13.4 If the contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 13.5 Alterations to the terms of insurance shall not be made without the approval of the Employer.
- 13.6 Both parties shall comply with any conditions of the insurance policies.

### 14. Site Investigation Reports:

- 14.1 The Contractor, in preparing the Bid, may rely on any site Investigation Reports referred to in the Contract Data, which are indicative and not exhaustive. The Employer shall provide all available details to the Contractor (Bidder) for his information, if requested by him at least one week prior to the bid submission date. The bidder shall be responsible for interpreting all such data. After award of work, the Contractor shall carry out detail survey and investigation for preparation of detail designs as per the scope of work and time period stipulated at Section-8.

To the extent which was practicable (taking account of cost and time), the Contractor (Bidder) shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor (Bidder) shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- (a) the form and nature of the Site, including sub-surface conditions,
- (b) the climatic conditions,
- (c) the extent and nature of the work and Goods necessary for the execution and

- completion of the Works and the remedying of any defects,
- (d) the Laws, procedures and labour practices of the Country, and
- (e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.
- (f) availability of required materials

**15. Queries about the Contract Data:**

- 15.1 The Employer will clarify queries on the Contract Data if any during the Pre-bid references.

**16. Contractor to Construct the Works:**

- 16.1 The Contractor shall construct and install the Works in accordance with the approved specification and drawings. All designs, drawings, and specifications to be furnished by the contractor shall be approved by the Employer before execution in accordance with Cl. 18.

**17. The Works to be completed by the Intended Completion Date:**

The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

**18. Approval by the Engineer:**

- 18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.
- 18.2 The Contractor shall be responsible for the design of Temporary Works.
- 18.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 18.4 The Contractor shall obtain approval to the design, drawings, and specifications of all components of the building and all allied infrastructure works, except those for the temporary works as stated at Cl. 18.1, from any National Institute of Repute / State Govt. Engineering College of repute in Odisha at its own cost. Such approved documents need to be furnished to the Employer within the stipulated date as mentioned in the contract data and at Section-8
- 18.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Employer / Engineer before their use.

**19. Safety:**

19.1 The Contractor shall be responsible for the safety of all activities on the Site.

**20. Discoveries:**

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

**21. Possession of the Site:**

21.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Contract Data, the Employer is deemed to have delayed the start of the relevant activities and this will be Compensation Event.

**22. Access to the Site:**

22.1 The Contractor shall allow the Employer and any person authorized by the Employer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

**23. Instructions:**

23.1 The Contractor shall carry out all instructions of the Engineer pertaining to works, which comply with the applicable laws where the Site is located.

23.2 The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so, required by the Employer.

**24. Disputes:**

That for the purpose of jurisdiction in the event of disputes if any of the Contract would be deemed to have been entered in to within the State of Odisha and it is agreed that neither party to the Contract will be competent to bring a suit in regard to the matter by this Contract at any place outside the State of Odisha.

**25. Deleted.**

**26. Replacement of Adjudicator:** Not applicable

## **B. TIME CONTROL**

### **27. Programme:**

- 27.1 Within **14 days of issue of letter of award**, the successful bidder shall submit to the Employer detail work programme for approval showing the general methods, arrangements, order and timing for all the activities in the Works along with monthly cash flow forecast. The agreed work programme / milestones during such contract negotiation shall form part of the agreement.
- 27.2 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 work, including any changes to the sequence of the activities.
- 27.3 The contractor shall submit to the Employer, 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.
- 27.4 The Employer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Employer again at any time. A revised Programme is to show the effect of Variations and Compensation Events.
- 27.5 Contractor has to facilitate themselves to update the project reporting in client PMIS portal.

### **28. Extension of the Intended Completion Date:**

- 28.1 The Employer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.
- 28.2 The Employer shall decide whether and by how much to extend the Intended Completion Date within 35 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.
- 28.3 The Engineer shall, within 14 days of receiving full justification from the contractor for extension of Intended Completion Date refer to the Employer his recommendation. The Employer shall in not more than 21 days communicate to the Engineer the Employer's decision.

### **29. Delays Ordered by the Engineer:**

The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works.

**30. Management Meetings:**

- 30.1 Either the Engineer or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 30.2 The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

**31. Early Warning:**

- 31.1 The Contractor is to warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the work resulting delay in the execution. The Engineer may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Completion Date.
- 31.2 The Contractor shall cooperate with the Engineer in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.

## C. QUALITY CONTROL

### 32. Identifying Defects:

The Engineer shall check the Contractor's work regularly and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for defects and to uncover and test any work that the Engineer considers may have a Defect.

### 33. Tests:

If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

### 34. Correction of Defects:

34.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

34.2 Every time notice of a Defect is given; the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

### 35. Uncorrected Defects:

If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

## D. COST CONTROL

### 36. Changes in the Quantities: (OPTIONAL)

### 37. Change of Scope (Variations) and Procedure for change of Scope:

- 37.1 The Employer may, require the Contractor to make modifications/alterations to the construction works before the issue of the completion certificate either by giving an instruction or by requesting the contractor to submit a proposal for change of scope involving additional cost or reduction in cost. Any such change of scope shall be made and valued in accordance with the provisions of this contract and the contractor, in that event, will have no further claim on the ground that had it been known / disclosed earlier he would have made such charges in other connected work in their design, construction which would have saved him some cost and given him other consequential benefits.
- 37.2 Change in scope may include.
- (a) Change in specifications of any item of works
  - (b) omission/ deletion of any item of work from the scope of work
  - (c) any additional work (such as addition of extra plinth area) which are not included in the scope of work including any additional test on completion
- 37.3 In the event of the Employer determining that a change of scope is necessary, it shall issue notice to the contractor a notice specifying in reasonable detail the works contemplated there under (“Change in scope notice”)
- 37.4 Upon receipt of change in scope notice, the contractor shall with due diligence, provide to the Employer through the Engineer within seven days time such information as is necessary together with documentation in support of;
- (a) the impact, of any, which the change in scope is likely to have on the completion of the work
  - (b) the options for implementing the proposed change of scope and the effect, if any, each on the cost and time thereof including the following details;
    - i. break down of quantities, unit rates and cost for different items of work
    - ii. proposed design for the change of scope
    - iii. proposed modifications, if any, to the construction period with updated work programs (all Variations shall be included in updated programs produced by the Contractor).
- 37.5 The contractor’s quotation for change of scope shall be based on the detail design and rates for various item of works as derived on the basis of his original bid price (in case of repetition of similar item as per original contract) or MoRTH Standard Data Book and prevailing market rates (in case of new item not envisaged in the original contract.)
- 37.6 The total value of all change of scope of work shall not exceed 5% of total contract price for the construction work.

**38. Payments for Change of Scope (Variations):**

- 38.1 The Employer shall assess the change in scope proposal and Contractor's quotation and upon reaching an agreement; the Employer shall issue the Change of Scope Order requiring the contractor to proceed with the performance thereof.
- 38.2 If the Contractor's quotation is unreasonable, the Employer may order the Variation and make a change to the Contract Price which shall be based on Employer's own forecast of the effects of the Variation on the Contractor's costs.
- 38.3 If the Employer decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event, subject to condition that such variation shall not exceed 5% of the total contract price for the contract work.
- 38.4 The Contractor shall not be entitled to additional payment for costs, which could have been avoided by giving early warning.

38.5 Deleted

**39. Payment Certificates:**

- 39.1 The Contractor shall submit to the Engineer statements of the value of the work completed.
- 39.2 The Engineer shall check the Contractor's statement within 14 days and certify the amount to be paid to the Contractor as per contract payment schedule after taking into account any credit or - debit for the month in question in respect of materials for the works in the relevant amounts and under conditions set forth in sub-clause 47.3 of the Contract Data (Secured Advance).
- 39.3 The value of work executed shall be determined by the Engineer.
- 39.4 The value of work executed shall comprise the value of the quantities of the items as per the milestone and work programme attached to the contract.
- 39.5 The value of work executed shall include the valuation of Change in Scope (Variation) and Compensation Events, if any.
- 39.6 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.

**40. Payments:**

Payments shall be adjusted for deductions for retention, other recoveries in terms of the contract and taxes at source, as applicable under the law. The Engineer shall pay the Contractor the amounts as per the payment schedule attached to the contract.

**41. Compensation Events:**

- 41.1.1 The following are Compensation Events unless they are caused by the Contractor:
  - (a) The Employer does not give access to a part of the Site by the Site Possession Date stated in the Contract Data.

- (b) Other contractors, public authorities of utilities or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- 41.2 If a Compensation Event would prevent the work being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Contractor will react competently and promptly to the event and shall submit information demonstrating the effect of the Compensation Event and the required extended time period for completion.
- 41.3 The Engineer shall examine the information furnished by the Contractor and shall recommend to the Employer by how much time the Intended Completion Date shall be extended. The Employer shall decide / sanction the required extension of time due to such compensation event.
- 41.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Engineer.

**42. Tax:**

- 42.1 The rates quoted by the Contractor shall be deemed to be exclusive of the GST and inclusive of Royalty, Income Tax, Labour CESS and all other statutory taxes that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

**43. Currencies:**

All payments shall be made-in Indian Rupees.

**44. Retention:**

- 44.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the works or settlement of final payment.
- 44.2 On completion of the whole of the works half the total amount retained is repaid to the contractor and half when the Defects Liability Period has passed and the Engineer has certified that all defects notified by the Engineer to the contractor before the end of the period have been corrected.

**45. Liquidated Damages:**

- 45.1 The Contractor shall pay liquidated damages to the Employer at the rate per week stated in the Contract Data for each week that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not relieve the contractor from his / her / their obligation to complete the works or from any other duties, obligations or responsibilities which he / she / they may have under the contract.
- 45.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

- 45.3 If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for every week or part of week which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works on the relevant section, subject to the limit stated in the contract data.

The employer may, without prejudice to any other method of recovery deduct the amount of such damages from any money due or to become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works or from any other of his obligations and liabilities under the contract.

- 45.4 If, before the Time for Completion of the whole of the Works or, if applicable, any Section, a Taking - Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or of that Section shall, for any period of delay after the date stated in such Taking-Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

**46. Bonus Payment:**

- 46.1 The procedure for payment of bonus (incentive) shall be as per the latest amendment to Para 3.5.5 of OPWD code.
- 46.2 If the contractor achieves completion of the whole of the works prior to the Intended Completion Date prescribed in Contract Data the Employer shall pay to the contractor a sum stated in Contract Data as bonus (incentive) for every completed month which shall elapse between the date of completion of all items of works as stipulated in the Contract and the time prescribed in Clause 17.
- 46.3 For the purpose of calculating bonus payments, the time given in the Bid for completion of the whole of the works is fixed and unless otherwise agreed, no adjustments of the time by reason of granting an extension of time pursuant to Clause 28 or any other clause of these conditions will be allowed. Any period falling short of a complete month shall be ignored for the purpose of computing the period relevant for the payment of bonus.

**47. Advance Payment:**

- 47.1 The Engineer shall make advance payment to the Contractor for mobilization and cash flow support of the amounts stated in the Contract Data by the date stated in the Contract Data, only against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a Bank acceptable to the Engineer in amounts and currencies equal to 110% of the advance payment.
- 47.2 An interest @ 10% per annum shall be charged on the advance payment.
- 47.3 The Advance Payment shall not be released until the basic design & architectural drawings is finalized and establishment of camp at work site is completed.

- 47.4 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. The contractor shall ensure that the Bank Guarantee remains enforceable until the advance payment has been fully repaid and accordingly renew it, from time to time, until the advance payment has been fully repaid.
- 47.5 If the terms of guarantee specify its expiry date, and the advance payment has not been repaid by the date then 28 days prior to the expiry date, the contractor shall extend the validity of the guarantee until the advance payment has been fully repaid.
- 47.6 The advance payment shall be repaid through percentage deductions from the interim payments as follows:
- (a) Deductions shall commence from the 1<sup>st</sup> interim payment.
  - (b) Deductions shall be made in proportions of the advance payment until such time as the advance payment has been repaid provided that the advance payment shall be completely repaid prior to the time when 90 percent of the accepted contract amount has been repaid.
- 47.7 If the advance payment has not been repaid prior to the issue of the Taking over Certificate for the work or prior to termination under Section – 3 Clause -54 of (termination by employer), the balance advance is payable by the contractor to the employer.

**48. Securities:**

The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employee and denominated in Indian Rupees. The Performance Security shall remain valid up to the period as defined in the Contract Data.

**49. Cost of Repairs:**

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions including the situation as stipulated at Cl. 12.

## **E. FINISHING THE CONTRACT**

### **50. Completion:**

**50.1** The Contractor shall request the Engineer to issue a Certificate of Completion of the Works and the Engineer will do so upon deciding that the Work is completed.

### **51. Taking Over:**

**51.1** The Employer shall take over the Site and the Works within seven days of the Engineer issuing a certificate of Completion.

### **52. Final Account:**

**52.1** The Contractor shall supply the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Employer shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.

### **53. Operating and Maintenance Manuals:**

**53.1** If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

**53.2** If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Employer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

### **54. Termination:**

**54.1** The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.

**54.2** Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Engineer;
- (b) the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (c) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- (d) the Contractor does not maintain a security which is required;
- (e) the Contractor has delayed the completion of works by the number of days for which the maximum number of liquidated damages can be paid as defined in the Contract data; and

- (f) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition."

- 54.3 When either party to the Contract gives notice of a breach of contract to the Engineer for a cause other than those listed under Sub Clause 54.2 above, the Engineer shall decide whether the breach is fundamental or not.
- 54.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 54.5 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site, as soon as reasonably possible.

**55. Payment upon Termination:**

- 55.1 If the-Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done fewer advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.
- 55.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, 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. No extra cost will be paid by the employer for expenditure towards 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.

**56. Property:**

- 56.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a contractor's default.

**57. Release from Performance:**

- 57.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

## F. SPECIAL CONDITIONS OF CONTRACT

### 1. **LABOUR:**

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.

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.

### 2. **COMPLIANCE WITH LABOUR REGULATIONS:**

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour 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 the construction industry are given below. 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 there 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/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have the 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.

#### **SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.**

- 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 5 years service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- c) Employees P.F. and Miscellaneous Provision Act 1952: - The Act Provides for monthly contributions by the employer plus workers @ 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 20 or more contract labour.
- f) The Code on Wages, 2019: This code consolidates the Laws relating to Wages and Bonus and matters connected therewith or incidental thereto.
- g) 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.
- h) Industrial Employment (Standing Orders) Act 1946: - It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.
- i) 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.
- j) 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 regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- k) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979: - The Act is applicable to an establishment which employs 5 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, travelling expenses from home up to the establishment and back, etc.
- l) 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 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 workplace etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

- m) Factories Act 1948: -The Act lays down the procedure for approval at 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 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

### 3. **SUB-CONTRACTING (GCC Clause 7):**

Please add the following as Clause 7.2:

The contractor shall not be required to obtain any consent from the employer for:

- a) the Sub-contracting of any part of the works for which the sub-contractor is named in the contract.
- b) the provision of labour; and
- c) the purchase of materials which are in accordance with the standards specified in the Contract.
- d) Beyond this if the contractor proposes sub-contracting any part of the work during execution of works, because of some unforeseen circumstances to enable him to complete the work as per terms of the contract, the Engineer / Employer will consider the following before according approval:
  - The contractor shall not sub-contract the whole of the works.
  - The contractor shall not sub-contract any part of the work without prior consent of the Engineer. Any such consent shall not relieve at the contractor from any liability or obligations under the contract and he shall be responsible for the acts, defaults and neglects of any sub-contractor, his agents or workmen as fully as if they were the acts, defaults or neglects of the contractor, his agents or workmen.
  - The Engineer should satisfy whether (a) the circumstances warrant such sub-contracting; and (b) the sub-contractors so proposed for the work possess the experience, qualification and equipment necessary for the job proposed to be entrusted to them in proportion to the quantum of work to be sub-contracted.
  - If payments are proposed to be made directly to that sub-contractor, this should be subject to specific authorization by the prime contractor so that this arrangement does not alter the contractor's liability or obligations under the contract.

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*Note: All bidders are expected to indicate clearly in the bid, if they propose sub-contracting elements of the works along with proposed value of such works [as mentioned in Contract Data]. For each such proposal the qualification and the experience of the identified sub-contractor in the relevant field should be furnished along with the bid to enable the employer to satisfy himself about their qualifications before agreeing for such sub-contracting and*

*include it in the contract.*

*In view of the above, normally no additional sub-contracting should arise during execution of the contract.*

#### **4. PROTECTION OF ENVIRONMENT:**

##### **Add the following as Conditions of Contract Clause 16.2:**

The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or other resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, by-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority. The contractor shall also abide by the requirements as per Attachment-X of the Bid Document.

##### **Salient features of some of the major laws that are applicable are given below:**

**The Water (Prevention and Control of Pollution) Act, 1974:** This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health or animals or plants or of aquatic organisms.

**The Air (Prevention and Control of Pollution) Act, 1981:** This provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

**The Environment (Protection) Act, 1986:** This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human being, other living creatures, plants, micro- organism and property.

**The Public Liability Insurance Act, 1991:** This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.

## ENVIRONMENTAL MITIGATION MEASURES DURING CONSTRUCTION

	Environmental Impact/Issue	Mitigation / Management Measures	Responsibility	
			Implementation	Supervision
1.	Removal of Trees	Trees will be removed from the corridor of impact (or, site) before the commencement of construction with prior clearance from the Forest Department.	Contractor	Department
2.	Generation of Debris	Debris generated due to the dismantling of the existing pavement structure shall be suitably reused in the proposed construction, subject to the suitability of the material and the approval of the Engineer. Unutilisable debris material shall be suitably disposed off by the contractor, either for the filling up of borrow areas created for the project or at pre-designated dump locations.	Contractor	Department.
3.	Loss of Topsoil	<p>(a) The topsoil from all areas of cutting and all areas to be permanently covered shall be stripped to a specified depth of 150 mm and stored in stockpiles (maximum slope 1:2, and maximum height 2m). To retain soil and to allow percolation of water, the edges of the stockpile shall be protected by slit fencing</p> <p>(b) Stockpiles will not be surcharges or otherwise loaded and multiple handling will be kept to a minimum to ensure that no compaction will occur. It shall be ensured by the contractor that the topsoil will not be unnecessarily trafficked either before stripping or when in stockpiles.</p> <p>(c) Such stockpiled topsoil will be returned to cover the disturbed area and cut slopes. Residual topsoil will be distributed on adjoining/proximate barren/rocky areas as identified by the Engineer in a layer of thickness of 75 – 150 mm. Top soil shall also be utilized for redevelopment of borrow areas, landscaping along slopes, medians, incidental spaces etc.</p>	Contractor	Department.
4.	Borrowing of Earth	The borrowing shall not be carried out in cultivable lands, unless agreed upon by the Engineer. Borrowing of earth shall be carried out as per the IRC Guidelines.	Contractor	Department.

5.	Degradation of Borrow Areas	The location, shape and size of the designated borrow areas shall be as approved by the Engineer and in accordance to the IRC recommended practice for borrow pits for road embankments. Borrow pits shall be re-developed, spoils shall be dumped with an overly of stockpiled topsoil. Redevelopment of borrow areas shall be taken up in accordance with the plans approved by the Engineer.	Contractor	Department.
	Environmental Impact/Issue	Mitigation / Management Measures	Responsibility	
			Implementation	Supervision
6.	Soil Erosion	Along sections abutting water bodies, stone pitching needs to be carried out for slopes between 1:4 and 1:2 Gabion structures/ Grass turfing shall be provided for slopes steeper than 1 vertical to 2 horizontals. The work shall consist of measures as per design or as directed by the Engineer to control soil erosion, sedimentation and water pollution, through use of berms, dikes, sediment basins, fiber mats, mulches, grasses, slope drains and other devices.	Contractor	Department.
7.	Construction Wastes & their disposal	Spoil from excavation of riverbed shall be managed and disposed off as directed by the Engineer. No new disposal site shall be created as part of the project, which is not redeveloped. All waste material shall be completely disposed as desired and the site shall be fully cleaned before handing over.	Contractor	Department.
8.	Quarry Operations	The Contractor shall open and use quarries, as per the Odisha Mining Rules. Alternatively, the Contractor shall acquire the required material from quarries licensed by the OSPCB and having an approved redevelopment plan.	Contractor	Department.
	Environmental Impact/Issue	Mitigation / Management Measures	Responsibility	
9.	Loss of Water Bodies	a. Filling of surface water bodies shall be compensated by digging an equal volume of soil for water storage. Such dug-up soil shall be use4d for spreading as topsoil.	Contractor	Department.

		b. Wherever earthwork is undertaken, the banks shall be protected by means as designed or as approved by the Engineer. Construction shall be carried out in a manner so that the side slopes are no steeper than 1:4, otherwise slope protection work shall be provided, as approved by the Engineer and as per item 6 of these specifications. For drains carrying run-off from the highways entering, into surface water bodies/channels, with a fall exceeding 1.5 m cascading or sedimentation traps shall be provided.		
10.	Loss of Other Water Sources	The replacement shall be ready prior to demolition / dismantling of the existing source. Any damage to the existing sources of water (hand pump, tube well etc.) shall be made good by the Contractor at his expense.	Contractor	Department.
11.	Flooding	In addition to the design requirements, the contractor shall take all desired measures as directed by the Engineer to prevent temporary or permanent flooding of the site or any adjacent area.	Contractor	Department.
	Environmental Impact/Issue	Mitigation / Management Measures	Responsibility	
			Implementation	Supervision
12.	Alteration of Drainage	a. In sections along water courses, and close to cross-drainage channels, earth, stone or any other construction materials or appendage shall be properly disposed off so as not to block the flow of water.  b. All necessary measures shall be taken to prevent earthwork, stonework, materials and appendage as well as the method of operation from impending cross-drainage at rivers, streams, water canals and existing and existing irrigation and drainage systems.	Contractor	Department.
13.	Contamination from Construction Wastes, fuel, and Lubricants	At construction vehicle parking locations and at fuel/lubricant storage sites, oil and grease traps shall be provided. Fuel storage shall be in proper bunded areas. The discharge standards promulgated under the Environmental Protection Act, 1986 shall be strictly adhered to.	Contractor	Department.

14.	Sanitation and Waste disposal in construction camps	Construction laborer's camps shall be located at least 200 m away from the nearest habitation and as approved by the Engineer. The sewage system for a construction laborer's camp shall be designed, built and as per the Factories Act, 1948 and the building and other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996.	Contractor	Department.
15.	Generation of Dust	All vehicles delivering materials to the site shall be covered to avoid spillage of materials. Clearance shall be affected by manual sweeping and removal of debris, or, if so, directed by the Engineer, by mechanical sweeping and cleaning equipment, an all dust, mud and other debris shall be removed completely.	Contractor	Department.
16.	Emission from	Hot mix plants and batching plants shall be located sufficiently away from habitation, agricultural operations or industrial establishments. Where possible such plants will be located at least 1000 m downwind from the nearest habitation. The exhaust gases, and operation of the plants shall comply with the requirements of the relevant current emission control rules (as per OSPCB).	Contractor	Department.
	Environmental Impact/Issue	Mitigation / Management Measures	Responsibility	
17.	Emission and noise from Vehicles & Equipment	All vehicles, equipment and machinery used for construction shall conform to the relevant Bureau of Indian Standard (BIS) norms. All vehicles, equipment and machinery used for construction shall be regularly maintained to ensure that pollution emission levels comply with the relevant requirements of OSPCB.	Contractor	Department.
	Environmental Impact/Issue	Mitigation / Management Measures	Responsibility	
			Implementation	Supervision
18.	Pollution from Crusher	All crushers used in construction shall conform to relevant dust emission control rules. Clearance for siting shall be obtained from the OSPCB. Alternatively, only crushers already licensed by the OSPCB shall be used.	Contractor	Department.
19.	Loss, Damage or Disruption of/to Fauna.	All works are to be carried out in such a fashion that the damage and disruption to fauna is minimum. Construction workers shall be instructed to protect natural resources and fauna, including wild animals and aquatic life.	Contractor	Department.

		Hunting and unauthorized fishing are prohibited.		
20.	Chance-found important Flora/Fauna.	If a rare/endangered/threatened flora/fauna species is spotted, the contractor shall make all arrangements to intimate the Forest/Wildlife authorities without delay, and measures will be taken for its conservation. Work would be suspended, until the relevant authorities are consulted, unless specifically directed by the Engineer.	Contractor	Department.
21.	Traffic Control and Safety	The Contractor shall take all necessary measures for the safety of traffic during construction and provide, erect and maintain such barricades, including signs, markings, flags, lights and flagmen as may be required by the Engineer for the information and protection of traffic approaching or passing through the section of the road under improvement.	Contractor	Department.
22.	Risk from Construction Operations	The contractor is required to comply with all the precautions as required for the safety of the workmen as per the international Labour Organisation (ILO) Convention No. 62 as far as those are applicable to this contract. The contractor shall also comply with the national Building Code for this purpose.	Contractor	Department.
23.	Potable Water and Hygiene	Potable water supply will be provided, at every workplace, as per the Factory Rules of Odisha. All requirements as per standards set by the building and other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 shall be fulfilled.	Contractor	Department.
24.	Protection of Cultural Heritage / Property	All the necessary and adequate care shall be taken to minimize impact on cultural properties (which includes cultural sites and remains, places of worship, graveyards, monuments and any other important properties/sites/remains notified under the Ancient Sites and Remains Act)	Contractor	Department.
25.	Chance found Archaeological property	All fossils, coins, articles of value of antiquity and structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government. The contractor	Contractor	Department.

	Environmental Impact/Issue	Mitigation / Management Measures	Responsibility	
			Implementation	Supervision
		shall work within 100 m in all directions from the site. The Engineer shall seek direction from the Archaeological Society of India (ASI) before instructing the Contractor to recommence work on the site.		
26.	Risk from explosives	Except as may be provided in the contract or ordered or authorized by the Engineer, the contractor shall not use explosives. Where the use of explosives is so provided or ordered or authorized, the contractor shall comply with the requirements of the explosives Act. First aid and medical care shall be provided, as per the factory Rules of Odisha.	Contractor	Department.

#### **5. POSSESSION OF SITE:**

The Contractor will facilitate acquisition of land and shifting of utilities including provision of manpower and vehicle for liaison with District Administration, Land Acquisition Authority, P.W.D & other concerned stakeholders for shifting of utilities. However, the final responsibility of land acquisition lies with the employer

**SECTION 4:  
CONTRACT DATA**

## Contract Data

*Items marked "N/A" do not apply in this contract.*

Clause Reference	Conditions	Data
1.1.5& 2.3	<p><b>Contract Data</b></p> <p>(Documents also to form part of the Contract)</p>	<ul style="list-style-type: none"> <li>i. The Schedule of Operating and Maintenance Manuals (Date to be Notified) [Cl. No.53]</li> <li>ii. The Schedule of Other Contractors (To be Notified later) [Cl. No.8]</li> <li>iii. The Schedule of Key Personnel [Cl No.9]</li> <li>iv. The Methodology and Program of construction [Cl No.27]</li> <li>v. The Schedule of Key and Critical equipment to be deployed on the work as per agreed program of construction [Cl No.27]</li> <li>vi. Site Investigation reports [Cl No.14]</li> <li>vii. Notice inviting bid including all corrigendum's / addendum / additional conditions / specifications / drawings etc. if any issued at the time of invitation of bid and acceptance thereof.</li> <li>viii. Bid document.</li> <li>ix. Performance security</li> </ul>
1.1.6	<p><b>Contractor</b></p>	<p>Contractor's obligations shall be, but not limited to the following:</p> <ul style="list-style-type: none"> <li>I. The Contractor shall design, execute and complete the Works in accordance with the Contract and with the Engineer's instructions, and shall remedy any defects in the Works.</li> <li>II. The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.</li> <li>III. The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor <ul style="list-style-type: none"> <li>a) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and</li> </ul> </li> </ul>

Clause Reference	Conditions	Data
		<p>b) shall also be responsible for the design or specification of the Permanent Works.</p> <p>IV. The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.</p> <p>V. Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:</p> <ul style="list-style-type: none"> <li>a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,</li> <li>b) remove and re-execute any other work which is not in accordance with the Contract, and</li> <li>c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.</li> </ul> <p>VI. The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).</p> <p>VII. If the Contractor fails to comply with the instruction, the Employer shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall pay to the Employer all costs arising from this failure.</p> <p><b>Contractor's Care for Works:</b></p> <p>I. The Contractor shall take full responsibility for care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued for the Works, when responsibility for the care of the Works shall pass to the Employer. If a Taking-Over Certificate is issued for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Employer.</p> <p>II. After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over</p>

Clause Reference	Conditions	Data
		<p>Certificate, until this outstanding work has been completed.</p> <p>III. If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.</p> <p>IV. The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.</p>
1.1.11	<b>Defects Liability Period</b>	<p>1. <b>Civil Works:</b> The Defects Liability Period is <b>03 (Three) Years</b> from the date notified in the Completion certificate of the work.</p> <p>I. In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Liability Period or as soon as practicable thereafter, the Contractor shall:</p> <p>a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and</p> <p>b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the Defects Liability Period for the Works or Section (as the case may be).</p> <p>II. If a defect appears or damage occurs, the Contractor shall be notified accordingly, by (or on behalf of) the Employer.</p> <p>III. All work referred to as completion of outstanding work and remedying defects shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:</p> <p>a) any design for which the Contractor is responsible,</p> <p>b) plant, materials, or workmanship not being in accordance with the Contract, or</p> <p>c) failure by the Contractor to comply with any other obligation.</p>

Clause Reference	Conditions	Data
1.1.12	<b>Employer's name and address</b>	<b>Managing Director,</b>  <b>Odisha Bridge &amp; Construction Corporation Ltd,</b> Vikash Bhavan, Nayapalli, Bhubaneswar-751012, Odisha. Email id: <a href="mailto:md@obcc.in">md@obcc.in</a> Phone number: 0674-, 2394093, 2396309, 2390043. FAX - 2396326
	<b>Name of the Authorized Representative</b>	<b>General Manager, Keonjhar Division, Keonjhar</b> He/she shall act as representative of the Employer for all purposes.
1.1.13	<b>Engineer's name and address</b>	<b>To be notified</b>
1.1.16	<b>Intended Completion Date</b>	09 (Nine) Calendar months from the date of commencement
1.1.19	<b>Site</b>	The Site is located in District-Keonjhar, Odisha.  Details of the Site: As provided in Section 7 and Section 8
1.1.22	<b>Start Date / Date of Commencement</b>	Date of issue of notice to proceed with the work.  (To be notified later).
1.1.26	Works	<b>Work Details:</b>  Government of Odisha has decided to Construct School Buildings under Godabarisha Mishra Adarsha Prathamika Vidyalaya Scheme at Pandua (Model-I) & at Madanpur (Model-I) in the District of Keonjhar, Odisha on Turnkey basis. The work shall be executed in a Turnkey Contract, where the Contractor assumes single sole responsibility for on time project delivery, to a specified performance level inclusive of the design and construction of the project components, in return for a payment on a fixed price Details of these works have been provided in Section-8, Concept drawings at Section-7 and Technical Specifications at Section-5. The rates and prices quoted by the bidder shall remain fixed for the duration of the contract and shall not be subject to any price adjustment.

Clause Reference	Conditions	Data
2.2	Sectional Completion	N/A.
2.3	Order of priority	<ul style="list-style-type: none"> <li>(a) Agreement</li> <li>(b) Letter of Acceptance, notice to proceed with the work.</li> <li>(c) Contractor's Bid</li> <li>(d) Contract Data</li> <li>(e) Conditions of Contract including Special Conditions of Contract</li> <li>(f) Terms of Reference, Design Brief &amp; Scope of Work (Section 8 of Bid Document)</li> <li>(g) Specifications</li> <li>(h) Drawings</li> <li>(i) Bill of quantities (optional) and</li> <li>(j) Any other document listed in the Contract Data as forming part of the Contract</li> </ul>
3	Language & Law	The language of the Contract documents is English. The law, which applies to the Contract, is the laws of Union of India.
7	Sub-Contracting	<p>Subcontracting components of the works shall be limited to 30 % of the Contract Price. The maximum number of Sub-Contractors allowed is TWO.</p> <p><i>However, if any sub-contractor is proposed after award of contract, the qualification of the said Sub-Contractor shall be checked with respect to his technical and financial capability by the Engineer on proportionate to the criteria set forth in the bidding document.</i></p>
13.1 & 13.2	Insurance	<p>The Contractor shall provide the following policies within 28 days from the date of commencement.</p> <ul style="list-style-type: none"> <li>a) Workmen Compensation Policy.</li> <li>b) Contractor's All Risks (CAR).</li> </ul>
14	Site Investigation Reports	All reports are indicative and not exhaustive.
18.4	Stipulated Datelines for Approvals	As mentioned in Section 8

21	Possession of the Site	<p>The Site Possession Date shall be as following:</p> <p>a) 80% of Site on the date of issuance of Notice to proceed with the Work.</p> <p>b) 90% of Site within 2 months of the date of issuance of Notice to proceed with the Work.</p> <p>c) Balance portion of the Site shall be handed over during execution of the Project.</p>
24 & 25	Disputes	<p>25.1: Amicable Settlement: Performance of the contract is governed by the terms &amp; conditions of the contract, in case of dispute arises between the parties regarding any matter under the contract, Party of the contract may send a written Notice of Dispute to the other party. The Party receiving the Notice of Dispute will consider as Notice and respond to it in writing within 30 days after receipt. The same disputes will be settled amicably by both the parties in the interest of the work. If not</p>
<b>Clause Reference</b>	<b>Conditions</b>	<b>Data</b>
		settled amicably, both the parties will take the shelter of court of law at Bhubaneswar.
27.1	Programme	<p>The Contractor shall submit a detail resource-based work program using standard software (Primavera/MS Projects) and a 'S' Curve showing monthly cash flow forecast for the Works, within 14 days of issue of the Letter of Acceptance of tender which shall form part of the contract.</p>
27.2& 27.3	Update of the Programme	<p>The period between Program updates shall be 60 days. The amount to be withheld for late submission of an updated Program shall be 1% of the Contract Amount to be released upon submission of the next Work Programme.</p>

31.1	Early Warning	<p>The following is added after the paragraph:</p> <p>If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.</p> <p>If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim.</p>
34 & 35	Defects Liability Period	<p>For Defects Liability Period Refer Cl. 1.1.11.</p> <p>The period for remedying Defects by the Contractor is 30 days from the date of Notice given by the Engineer, failing which the Employer shall make good the same at the cost and risk of the Contractor.</p>
37.1	Change of Scope	<p>The Change of Scope may also include work(s) under exigency which will facilitate smooth completion of the project and may not be directly related to the scope of works under this Contract</p>
37.5	Change of Scope	<p>Change of scope proposal submitted by the Contractor shall be determined by the Engineer as below.</p> <p><i>a. The final value/ approval/ %age of deviation (both +ve / -ve COS) lies with the Board of Directors of OB&amp;CC.</i></p> <p><i>b. Change of scope up to 05 (five) percent of the Original Contract Price (both +ve / -ve COS), the Contractor/Agency have to execute and no excuse under all circumstances.</i></p> <p><i>c. Payment procedure of Change of Scope shall be as follows:</i></p> <p><i>i. In case of Positive change of scope (+ve COS) for tendered items, payment will be made as a deviation of the tendered quantity at the approved tender rate/ percentage (%) on pro-rata basis.</i></p> <p><i>ii. In case of Positive change of scope (+ve COS) for the items not mentioned in the schedule of payments and subsequent Payment schedule breakdowns requiring determination, change of scope will be evaluated as mentioned below:</i></p> <ul style="list-style-type: none"> <li><i>• For works where Schedule of Rates (SOR) of State's Public Works Department are available the same shall be applicable for determination of costs.</i></li> </ul>

		<p>• For item of works not included in Schedule of Rates as mentioned in sub-para (a) above, the cost of same shall be derived on the basis of MORTH Standard Data Book / CPWD Analysis / DSR or the prevailing market rates whichever is less.</p> <p>d. For all negative change of scope (-ve COS) deduction shall be made as per Contract approved rate/ percentage (%) on pro-rata basis mentioned in the schedule of payments, Section-9. For partial withdrawal of any work not expressly mentioned in schedule of payments, Section-9 and subsequent Payment schedule breakdowns, procedure defined in 37.5(c) (ii) will be followed in determination of negative change of scope (-ve COS).</p> <p>e. Change of Scope (both +ve / -ve COS) beyond 05 (five) percent of the Original Contract Price, shall be done on mutual consent looking into the broader objective of comprehensive &amp; holistic development of the Project. The final power of deviation lies with the Board of Directors of OB&amp;CC.</p>
37.6	Change of Scope	The total value of all change of scope of work shall not exceed 5 % of total contract price for the construction work.
39.2	Payment Certificates	<p>Clause 39.2 of Section 3 is replaced as below:</p> <p>The Engineer shall check the Contractor's statement within <b>07 days</b> and certify the amount to be paid to the Contractor as per contract payment schedule after taking into account any credit or - debit for the month in question in respect of materials for the works in the relevant amounts and under conditions set forth in sub-clause 47.3 of the Contract Data (Secured Advance).</p>
40	Payments	Employer shall pay the Contractor <b>within 07 days</b> of certification of the Engineer as per Cl. 39.
42	Tax	The rates quoted by the Contractor shall be deemed to be inclusive the Royalty, Income Tax, Labour CESS. <b>Additional Charges along with EMF &amp; DMF on minor minerals as per letter no. RDM-MMS-MEET-0009- 2022, 38234 dtd. 10.11.2022 of Revenue &amp; Disaster Management Department, Govt of Odisha</b> and all other statutory taxes that the Contractor will have to pay for the performance of this Contract but <b>excluding GST on Works Contract</b> . GST on
<b>Clause Reference</b>	<b>Conditions</b>	<b>Data</b>
		Works Contract shall be paid by the Employer as applicable. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.
43	Currency	The currency of the Contract is Indian Rupees

44.1	Retention Money	<p>Retention money - 10 % of gross value of each running bill is to be deducted after gross payment exceeds 10% of the Contract Amount and shall continue up to 60% of the Contract Amount. The limit of retention money shall be 5% of the Contract Amount.</p> <p>However, the Contractor may furnish Bank Guarantee(s) for an amount equal to 5% of the Contract Amount, in which case no deduction for Retention Money shall be made. The Bank Guarantee(s) amounting to 5% of Contract Amount must remain valid at-least up to completion of Works and the Bank Guarantee(s) amounting to at-least 2.5% of Contract Amount must remain valid up to 28 days beyond the defect liability period.</p>
45.1	Liquidated Damages	<p>1. Project Completion Schedule</p> <p>During Construction period, the Contractor shall comply with the requirements set forth for each of the Project Milestones and the Scheduled Completion Date. Within 15 (fifteen) days of the date of each Project Milestone, the Contractor shall notify the Engineer of such compliance along with necessary particulars thereof.</p> <p>2. Project Milestone-I</p> <p>Project Milestone-I shall occur on the date falling on the [<b>35% of the Scheduled/ Extended Construction Period</b>] day from the Commencement Date and the Contractor shall have <b>gross certified payment for an amount not less than 20% (twenty per cent) of the Contract Price.</b></p> <p>3. Project Milestone-II</p> <p>Project Milestone-II shall occur on the date falling on the [<b>70% of the Scheduled / Extended Construction Period</b>] day from the Commencement Date and the Contractor shall have <b>gross certified payment for an amount not less than 60% (Sixty per cent) of the Contract Price.</b></p> <p>4. Project Milestone-III</p> <p>Project Milestone-II shall occur on the date falling on the [<b>100% of the Scheduled / Extended Construction Period</b>] day from the Commencement Date and the Contractor shall have <b>gross certified payment for an amount not less than 100% (Hundred per cent) of the Contract Price.</b></p>
<b>Clause Reference</b>	<b>Conditions</b>	<b>Data</b>

		<p>The liquidated damages@ 0.05% of the balance work against the targeted achievement against the Milestone or completion per day subject to a maximum of 10% (ten percent) of the Contract Price, beyond which the Contract shall be <b>deemed to be terminated</b>.</p> <p>Provided further that in the event the Project Work is completed within or before the Scheduled Completion Date including any Time Extension, applicable for that work, the Damages paid under this Clause shall be refunded by the Employer to the Contractor, but without any interest thereon.</p>
46	Bonus Payment	The Contractor shall be eligible for bonus payment as per the provisions of OPWD Code as on the date of signing of contract.
47	Advance payment	<p>Advance Payment may be made upon request from the Contractor with the following conditions satisfied.</p> <p>(i) Maximum 10% (ten percent) of the contract amount for <b>mobilization</b>; and</p> <p>(ii) <b>90%</b> of the Paid Invoice amount subject to cumulatively maximum up to 35% of the Contract Amount as <b>Secured Advance</b> for non-perishable items of the Project.</p> <p>All advance payments shall be made against irrevocable bank guarantee(s) amounting to 110% of the Advance payment, from any Bank listed in Bid data sheet, payable at par by its branch at Bhubaneswar.</p>
47.2	Interest on Advance payment	10 (ten) %
48	Performance Security	<p>Within 21 days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in any of the forms given below for an amount equivalent to <b>5 (Five) %</b> of the Contract price, Public Sector Bank of India, counter guaranteed by its branch at Bhubaneswar.</p> <p>The guarantee shall be valid 28 days from the date of expiry of the Defect Liability Period.</p>
53 & 53.1	Operating and Maintenance Manual	<p>As built drawings duly approved by the Engineer, Maintenance Manual (during maintenance period), Operating and maintenance manuals of various fittings, machines, equipment and /or installations along with their warranties as provided by the OEMs are required by the Employer and the Contractor shall supply them <b>within 30 days</b> of handing over of the project, failing which 1% of the Contract amount shall be withhold by the Employer.</p> <p><i>If the documents <b>are not submitted within 60 days</b> of handing over of the project, the above withhold amount shall be <b>forfeited</b> by the Employer.</i></p>

Clause Reference	Conditions	Data
54.2	Termination	<p>The following is added after sub-para (f) [54.2]</p> <p>The Contractor has contravened Sub-clause 7 and Clause 9 of GCC.</p> <p>The Contractor does not adhere to the agreed construction program (Clause 27 of Conditions of Contract (CC) and also fails to take satisfactory remedial action as per agreements reached in the management meetings (Clause 30 of CC) for a period of 60 days.</p>
55.1	Value of work is not completed.	The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be 20 %.
56.1	Property	Contractor's Default shall mean provisions under Cl. 54.2 (a), Cl. 54.2. (c) and Cl. 54.2.(e).

## SECTION –5

### TECHNICAL SPECIFICATIONS

Clause 5.1 The Technical specifications contained herein shall be read in conjunction with other documents of the bid.

Clause 5.2 The technical specification in accordance with which the entire work described thereafter shall be carried out and completed by the Contractor, shall comprise the following:

PART I: GENERAL TECHNICAL SPECIFICATIONS.

PART II: SUPPLEMENTARY TECHNICAL SPECIFICATIONS.

Clause 5.2.1 **PART I: GENERAL TECHNICAL SPECIFICATIONS**

*The construction work shall be executed in a severe environmental exposure condition with alternate wetting & drying, with annual rainfall intensity and subject to a likely wind speed As per codal provision. The site is situated in the Seismic Zone-II. The foundation of the structure shall be based on per soil test report with codal provision.*

Other provisions, stipulations, guidelines, and rules laid down in the National Building Code, 2026 and relevant IRC code shall be adopted for all structural, functional, legal, regulatory, and obligatory, safety requirements for the buildings and the building services including plumbing and solid waste management with a view to delivering an integrated facility for the intended purpose. In NBC whenever the “recommended” word is used, it is to be treated as a “mandatory” provision.

The following specifications shall be followed in this project.

- (i) OPWD/CPWD Specifications (Civil).
- (ii) CPWD Specifications for Electrical Works (Internal & External).
- (iii) OPWD Specification for water supply, Sanitary Installation inclusive of drainage system as per relevant IS Codes, NBC-2026 & manuals.
- (iv) CPWD Specifications for Horticulture & Landscaping.
- (v) All relevant IS Codes for materials, testing and relevant BIS Codes of practices (IS 456: 2000, IS 800: 2007 and such other codes of practices) and other relevant IRC codes.
- (vi) MoRT&H Specifications for Road and Bridges (Fifth / latest revision) for road work (Approach Road) and other relevant IRC codes.

Clause 5.2.2. **PART II SUPPLEMENTARY TECHNICAL SPECIFICATIONS.**

Any other provisions/material/testing suggested by the bidder (or Contractor) for the building/ building services not covered under Clause 5.2.1 above shall be governed by the relevant Technical Specification prevalent as good practice in the industry and adopted after the Engineer's approval.

In case of any dispute arising out of the interpretations of the above, the decision of the Engineer shall be final and binding on the Contractor.

Clause 5.2.3 When an Amended/ Modified/ added Clause supersedes a Clause or part thereof in the said specifications, then any reference to the superseded Clause shall be deemed to refer to the Amended/Modified/ Added Clause shall always prevail.

**SECTION 6:**  
**SECURITIES AND OTHER FORMS**

## **BID SECURITY (BANK GUARANTEE)**

**WHEREAS**, \_\_\_\_\_ [name of Bidder] (hereinafter called "the Bidder") has submitted his Bid dated \_\_\_\_\_ [date] for the construction of [name of Contract hereinafter called "the Bid"].

**KNOW ALL PEOPLE** by these presents that We \_\_\_\_\_ [Name of Bank] of \_\_\_\_\_ [name of country] having our registered office at (hereinafter called "the Bank") are bound unto \_\_\_\_\_ [name of Employer] (hereinafter called "the Employer") in the sum of \_\_\_\_\_ \* for which payment well and truly to be made to the said Employer the Bank itself, his successors and assigns by these presents.

**SEALED** with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20.

**THE CONDITIONS** of this obligation are:

- (1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of Bid;
- OR
- (2) If the Bidder having been notified to the acceptance of his bid by the Employer during the period of Bid validity:
    - (a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
    - (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders; or
    - (c) does not accept the correction of the Bid Price pursuant to Clause 27

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

This guarantee shall also be operatable at our..... Branch at Bhubaneswar, 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.

The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of Odisha Bridge & Construction Corporation Ltd details of which is as under:

<b>Sl. No.</b>	<b>Particulars</b>	<b>Details</b>
1	Name of Beneficiary	OB&CC Ltd.
2	Name of Bank	CANARA BANK
3	Account No	80073210000014
4	IFSC Code	CNRB0018007

This Guarantee will remain valid for a period of 45 (Forty-five) days beyond the final bid validity period.

Notwithstanding anything to the contrary contained hereinabove: -

1. Our Liability under this Bank Guarantees shall not exceed .....
2. The Bank Guarantee shall be valid up to....; and
3. We are liable to pay up to the guarantee amount only and only if we receive from you a written claim or demand not later than dd/mm/yyyy -----, at our Branch,
4. All your rights as well as our liability under this bank guarantee shall stand extinguished unless a written claim or demand is made under this guarantee not later than -----

**DATE** \_\_\_\_\_

**SIGNATURE** \_\_\_\_\_

**WITNESS** \_\_\_\_\_

**SEAL** \_\_\_\_\_

\_\_\_\_\_  
[Signature, name and address]

- \* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.
- \*\* 45 days after the end of the validity period of the Bid. Date should be inserted by the Employer before the Bidding documents are issued.

## PERFORMANCE BANK GUARANTEE

To

\_\_\_\_\_ [name of Employer]  
\_\_\_\_\_ [address of Employer]  
\_\_\_\_\_

**WHEREAS** \_\_\_\_\_ [name and address of Contractor] (hereafter called "the Contractor") has \_\_\_\_\_ undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ to execute \_\_\_\_\_ [name of Contract and brief description of Works] (hereinafter called "the Contract").

**AND WHEREAS** it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

**AND WHEREAS** we have agreed to give the Contractor such a Bank Guarantee:

**NOW THEREFORE** we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of \_\_\_\_\_ [amount of guarantee]\* \_\_\_\_\_ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of \_\_\_\_\_ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between your 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 also be operatable at our..... Branch at Bhubaneswar, 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.

The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of Odisha Bridge & Construction Corporation Ltd details of which is as under:

Sl. No.	Particulars	Details
1	Name of Beneficiary	OB&CC Ltd.
2	Name of Bank	CANARA BANK
3	Account No	80073210000014
4	IFSC Code	CNRB0018007

This guarantee shall be valid until 28 days from the date of expiry of the Defect Liability Period. Signature and Seal of the guarantor \_

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

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- \* An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

## BANK GUARANTEE FOR ADVANCE PAYMENT

To

\_\_\_\_\_ [name of Employer]  
\_\_\_\_\_ [address of Employer]  
\_\_\_\_\_ [name of Contractor]

**Gentlemen :**

In accordance with the provisions of the Conditions of Contract, sub-clause 47.1 ("Advance Payment") 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 or financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to \_\_\_\_\_ [name of Employer] on his first demand without whatsoever right of obligation on our part and without his first claim to the Contractor, in the amount not exceeding \_\_\_\_\_ [amount of guarantee]\* \_\_\_\_\_ [in words].

We further agree that no change or addition to or other modification of the terms of the Contractor or Works to be performed thereunder 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 also be operable at our Branch at Bhubaneswar, 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.

The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of Odisha Bridge & Construction Corporation Ltd details of which is as under:

Sl. No.	Particulars	Details
1	Name of Beneficiary	OB&CC Ltd.
2	Name of Bank	CANARA BANK
3	Account No	80073210000014
4	IFSC Code	CNRB0018007

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.

**Completion Certificate**

- 1 I... ..... (Name of the Engineer), acting as the Engineer, under and in accordance with the Agreement dated ..... (the “Agreement”), for [construction of the \*\*\*) on Turn Key basis through (Name of Contractor), hereby certify that the Tests in accordance with Contract Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I am satisfied that the Project can be safely and reliably placed in service of the Users thereof.
  
- 2 It is certified that, in terms of the aforesaid Agreement, all works forming part of Project have been completed, and the Project is hereby declared fit for entry into operation on this the day of 20..... , Scheduled Completed Date for which was the..... day of... 20.....

SIGNED, SEALED AND DELIVERED

For and on behalf of the Engineer by:

(Signature)

(Name)

(Designation)

(Address)

**Taking Over Certificate**

I, ..... (Name and designation of the Employer’s Representative) under and in accordance with the Agreement dated ..... (the “Agreement”), for [construction of \*\*\*\*] (the “Project”) Turn Key basis through ..... (Name of Contractor), hereby certify that the Tests on completion of Defect Liability Period in accordance with the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement and I hereby certify that the Employer has taken over the Project from the Contractor on this day.....

SIGNED, SEALED AND DELIVERED

(Signature)

(Name and designation of Authority’s  
Representative)

(Address)

## SECTION 7: (DRAWINGS)

(Drawings and Soil Reports are available in the following Link)

<https://OBCC-NAS.quickconnect.to/d/s/18OYgZpego8Sx1UbikvNFwhI7ITdN3Fd/4zhj1zA18b4Katlhp0Rot9ez1EE1uR-I-DLMgxOaYOQQ0>

**Construction of School Buildings under Godabarisha Mishra Adarsha Prathamika Vidyalaya Scheme at Pandua (Model-I) & at Madanpur (Model-I) in the District of Keonjhar, Odisha on Turnkey basis.**

**SECTION-8**

**TERMS OF REFERENCE, DESIGN BRIEF  
& SCOPE OF WORK**

## **CONTENTS:**

**1. GENERAL INFORMATION**

**2. DELIVERABLES & SCOPE OF WORK**

**3. BRIEF TASKS TO BE CARRIED OUT AT DESIGN & EXECUTION STAGE**

**4. SITE BY SITE DELIVERABLES**

**5. SCOPE OF THE EXECUTION OF THE PROJECT**

**A. TIMELINE FOR SUBMISSIONS**

**B. SERVICES TO BE PROVIDED BY THE EMPLOYER**

**C. SECRECY**

**D. APPENDIX-I**

**1.1 GENERAL**

**1.2 PROJECT MANAGEMENT, CLEARANCES & CERTIFICATION**

**1.3 SCOPE FOR ARCHITECTURE & LANDSCAPE WORK**

**1.4 SCOPE FOR CIVIL WORKS**

**1.5 SCOPE FOR WS & SI WORK**

**1.6 SCOPE FOR ELECTRICAL WORKS**

**1.7 ADDITIONAL REQUIREMENTS**

**1.8 MAINTENANCE OBLIGATIONS OF THE CONTRACTOR**

**E. APPENDIX II**

**LIST OF ACCEPTABLE MAKES**

## 1. **GENERAL INFORMATION**

The Godabarisha Mishra Adarsha Prathamika Vidyalaya initiative has been conceptualized to strengthen the foundation of primary education in the State by ensuring access to quality, inclusive, and equitable learning opportunities, particularly for children in rural and underserved areas. The project recognizes primary education as a key driver of long-term socio-economic development and aims to support holistic child development.

Aligned with the National Education Policy (NEP) 2020, the initiative focuses on achieving foundational literacy and numeracy, promoting child-centric and experiential learning, and integrating modern infrastructure and digital tools within the schooling system. It further emphasizes inclusivity, multilingual education, and the promotion of local culture and values, supported by trained educators and active community participation.

### **Objective of the Assignment**

The primary objective of the project is to establish a robust and inclusive primary education system that ensures universal access to quality education from the foundational stage up to Class VIII. The project aims to achieve foundational literacy and numeracy among all students at an early stage while promoting holistic development through a balanced focus on academic, cultural, and physical learning.

It further seeks to develop modern, safe, and well-equipped school infrastructure integrated with digital learning facilities, laboratories, libraries, and sports amenities to create an enabling learning environment. The project also aims to promote multilingual education, including learning in the mother tongue, to enhance comprehension and learning outcomes.

In addition, the initiative focuses on improving the quality of education through capacity building of teachers, adoption of innovative and experiential teaching methodologies, and implementation of structured monitoring and evaluation mechanisms. It also intends to foster community participation and stakeholder engagement to strengthen the overall education ecosystem. Ultimately, the project aspires to create a scalable and replicable model for improving primary education standards across the State.

The Odisha School Education Programme Authority (OSEPA) has entrusted several Central Public Sector Undertakings (CPSUs) and Odisha Bridge & Construction Corporation Limited (OB&CC Ltd.) to execute the project in several districts of Odisha. OB&CC Ltd. has been entrusted with the execution of Godabarisha Mishra Adarsha Prathamik Vidyalaya projects across ten identified sites in Keonjhar district, Odisha.

Two pre-approved standard designs (Model-I & Model-II) along with tentative cost estimate has been provided by OSEPA, which shall be adopted across all project sites to ensure consistency in planning, design, and implementation.

The project is proposed to be executed in a phased manner. Under Phase I, construction shall be limited to the ground floor of the school buildings. However, the structural design, including foundation systems, shall be developed to accommodate a future vertical expansion up to the first floor.

Phase II of the project shall include the development of additional infrastructure components such as kitchen and dining hall, multipurpose hall, playground, and other ancillary facilities as per prescribed norms and requirements.

**DEVELOPMENT CONSISTS OF THE FOLLOWING COMPONENTS:**

**PANDUA (Model-I, Option-2, DMF area)**

**Plot Area= 4.28 Acres**

**School Building**

- I. Ground floor built up area – 1783.00 Sqm
- II. Terrace floor built up area – 47 Sqm

TOTAL AREA – 1830.00 Sqm

**PROPOSED INFRASTRUCTURE AND SITE DEVELOPMENT**

1	Boundary Wall & Gate complex
2	Barbed Wire Fencing
3	Approach Road & Parking
4	Walkway/Pathway
5	Landscaping & Horticulture
6	External Water Supply & Sewerage System
7	Rainwater Harvesting
8	Fire Fighting (EXTINGUISHERS)
9	External Electrification (Transformer)
10	External Illumination
11	On-grid Solar
12	Signages & Garbage Disposal
13	Bust Size Statue & Pedestal (Godabarisha Misha & Others)
14	Play Area Development

**MADANPUR (Model-I, Option-1, Non-DMF area)**

**Plot Area= 4.12 Acres**

**School Building**

- I. Ground floor built up area – 1783.00 Sqm
- II. Terrace floor built up area – 47 Sqm

TOTAL AREA – 1830.00 Sqm

## **PROPOSED INFRASTRUCTURE AND SITE DEVELOPMENT**

1	Boundary Wall & Gate complex
2	Barbed Wire Fencing
3	Approach Road & Parking
4	Landscaping & Horticulture

### **2. DELIVERABLES & SCOPE OF WORK**

The work specified here in above shall be treated as an approximate assessment. The actual works as required based on detailed topographical survey, Geotechnical investigation and design shall be determined by the Contractor in accordance with the Specifications and Standards.

The Contractor shall establish a design liaison office at site within 28 days from the Commencement Date to facilitate preparation and submission of designs, drawings, construction documents, etc., for review and approval by the Employer's Representative. The design liaison office shall preferably be located near the Employer's office to facilitate communication and frequent interactions with the Employer's Representative and the Employer. The Contractor shall provide full-time design staff and continuously maintain the design liaison office until such time as all necessary designs and Construction Documents have been completed, reviewed, and approved by the Employer's Representative. The Contractor will be fully responsible for ensuring that its designs, drawings, and construction documents satisfy all requirements for constructing Works that are complete and fully functional in all respects. The contractor shall be responsible for making the facility fit for the intended purpose while performing all of its obligations covered under the Contract Document in its entirety. The work shall be done in accordance with the drawings approved by the statutory authorities. The contractor shall be responsible for making the facility fit for the intended purpose while performing all of its obligations covered under the Contract Document in its entirety. The work shall be done in accordance with the drawings approved by the statutory authorities.

The scope includes further detailing, as deemed necessary (without changing the proposed “buildings and space planning”, design intent), developing required specifications, preparing Good for Construction (GFC), coordinated drawings, and constructing the entire campus in accordance with the same. The scope shall also include the preparation of as-built drawings before handing over the work to the Employer. The scope also includes maintaining Quality assurance & Quality control (QA&QC) including control, corrective actions, reporting, and arranging for regular inspections by all concerned.

The scope of works consists of the Design, engineering & construction of **School Buildings under Godabarisha Mishra Adarsha Prathamika Vidalaya Scheme at Pandua (Model-I, Option-2, DMF area) & Madanpur (Model-I, Option-1, non-DMF area) in the district of Keonjhar, Odisha on Turnkey basis.**

*The brief scope of works is outlined as follows:*

- **Overall development of the Site including landfilling and grading. The site filling shall be determined as per the site drainage requirement of connecting to the outfall point.**
- **Cutting & filling along with the development of retaining wall as per drawing and design intent.**
- **Development of School Building and proposed infrastructure and site development as per scope of work.**
- **Water supply and sewerage including plumbing & sanitary installations (including internal & external) in the Student Toilet block, Headmaster's room, Staff Toilet, Kitchen & Dining hall.**
- **Proper drainage system.**
- **Internal & External electrification of complete school buildings, Gate complex, security room, & premises along with façade lighting of main school building.**
- **Development of Landscaping works.**
- **Other misc. Works such as site development etc.**
- **Any other facility/amenity etc.**
- **Cutting and filling need to be checked as per actual site condition. Accordingly, payment shall be done as confirmed by the engineer-in-charge.**

*The scope also includes obtaining all types of approvals, NOC, and certifications from different competent authorities.*

*The concept prepared by the employer must be followed by the contractor.*

*The scope of works shall be read along with the drawings provided in the tender document. The Contractor shall submit a detailed work plan considering the project completion time frame mentioned in the tender document.*

*The contractor shall prepare the architectural design of all the components and get it approved prior to starting the detailed design of the works. The area and facility requirements have been provided above for the project.*

### **3. BRIEF TASKS TO BE CARRIED OUT AT THE DESIGN & EXECUTION STAGE**

#### **General Requirements**

- I. All archaeologically significant structures to be identified in consultation with Employer and other stakeholders, and care must be taken to not harm those in any manner.

- II. The buildings shall be fire safety compliant and facilities in the development area shall include a security surveillance System, First Aid facility and other required services.
- III. Power Load calculation to be done by the tenderer but the quantity mentioned in the project details is the minimum requirement, keeping in view the load requirement and reliability of power.
- IV. Supply shall be taken as 33 KV/11 KV or as available from the grid based on the assessed load.
- V. The Contractor/developer is responsible to obtain approval of drawings, environmental clearance (if any) and all other statutory clearances from the competent authorities as maybe required for the project in consultation with the Employer.
- VI. The contractor shall have to submit the necessary drawings/documents and obtain the approval of the Engineer/Employer (as the case may be) as per mutually agreed schedule before execution.
- VII. The agency should develop its own detailed design without changing the conceptual design intent. All value addition to refine the functional aspects is to be undertaken at no additional cost by the selected contractor.
- VIII. All reinforcement steel and structural steel shall be procured from primary producers of steel as per the approved manufacturers list, complying with all relevant codal provisions.
- IX. The Fire safety requirement shall be as per NBCS-2026 and obtaining NOC and clearance certificate from the relevant authority is the responsibility of the Contractor.
- X. Look and feel of the building façade is Final & approved. The agency should be careful to achieve the approved elevations.

**b. Special Conditions**

**(i) Look & feel of the project**

The Contractor shall study the drawings, visualizations, specifications, material finishes indicated in the contract document and understand all parameters of the design including the architectural look & feel intent. The contractor shall clarify any doubts/discrepancies during the technical discussions with the Employer. The contractor is bound to maintain and deliver the core and shell of the building as per the design intent. The final elevation, look and feel of all building shall merge with each other.

The contractor is bound to maintain and deliver the core and shell of the building as per the design intent. The final elevation, look and feel of all building shall merge with each other.

**(ii) Construction Documents / Documents**

The Contractor shall provide multiple options of the design of necessary element of the Work for the Employer's Representative to review along with Employer / OB&CC and shall proceed further only after its approval and sign off. And related Construction activities shall not commence prior to approval of the same. Any minor modification or alteration to one design shall not be

constructed as “option of the design”. The drawings issued along with the tender are based on the applicable statutory regulations and guidelines. In due course of time OB&CC shall issue the drawings approved by the statutory authorities for "commencement of works at site", and these shall become the basis for preparation of the **GFC drawings** by the contractor. All development works shall confirm to, shall be designed and constructed/ executed in compliance with the applicable statutory regulations and guidelines and comments received from the concerned statutory agencies.

**(iii) Approval Drawings / Documents for Subsequent Approvals**

The Contractor shall prepare and submit approval drawings, documents, calculations, certificates, etc, as may be necessary by the statutory authorities, at the relevant stages. The contractor shall prepare and modify the GFC drawings based on the drawings approved by the statutory authorities.

**(iv) Construction Drawings / Documents Approval Process**

The Contractor shall submit at least following number of sets for approval of Employer’s Representative.

**1. Construction Documents - 07 sets**

**2. Samples, datasheets etc - 07 sets**

Each of the submissions should clearly identify the Work, purpose of the submission, document number, etc., as approved in the procedure referred above. Upon review of the said submission, the Employer's Representative shall review and revert with relevant codes for revision, approval, conditional approval, etc. Although Work may proceed on receipt of a drawing with conditional approval, Contractor must resolve the comments indicated, resubmit, and obtain final approval before release for shipment or completion of the affected Work. Employer/ Employer’s Representative and Consultant/OBCC’s review and permission to proceed does not constitute acceptance or approval of submittals including, but not limited to, design details, calculations, analyses, test methods, construction methods, plans, certificates or materials developed or selected by Contractor and does not relieve Contractor from full compliance with the Contract requirements.

**(v) Technical Standards and Regulations**

The Contractor shall refer and implement all relevant and all applicable codes, technical standards, regulations, as amended, required for performance of Work covered under this Contract. Also, all the conditions of statutory approval already taken by the Employer need to be complied during the construction stage, the same need to be complied for future approval required if any.

#### **(vi) Samples**

Submission of samples shall not be limited to the above, and the Employer/ Employer's Representative and Engineer/Employer the right to demand any sample of materials, as deemed necessary.

Where samples are required, they shall be submitted by and at the expense of Contractor allowing at least fourteen (14) calendar days for review by Employer/ Employer's Representative and Engineer/Employer unless otherwise shown on the Contract Schedule. The materials represented by such samples shall not be manufactured, delivered to the Site or incorporated into the Work without Employer/ Employer's Representative and Engineer/Employer review.

Each sample shall bear a label showing Contractor's name, Work name, Contract number, name of the item, manufacturer's name, brand name, model number, supplier's name, and reference to the appropriate drawing number, technical specification section and paragraph number, all as applicable.

Samples, which have been reviewed, may at Employer's option, are returned to Contractor for incorporation into the Work.

#### **c. Design Intent**

The design considerations suggested are indicative and minimal. The agency shall improve upon them and provide the best possible technology and materials to get the state-of-the-art output.

- I. The construction work shall be executed in high temperature and humidity conditions with an average annual rainfall of 1487.7 mm as per IMD data, and the maximum cyclonic wind speed shall be taken as per IS 875:2015. The design windspeed to be as per IS 875: 2015
- II. Indicative Soil Classification shall critically affect the structural design, construction, and waterproofing of the structures as well as the construction time.
- III. General provisions, stipulations, guidelines, and rules laid down in the National Building Code 2026 and other relevant codes as applicable, shall be adopted for all structural, waterproofing, fire safety, functional, legal, regulatory, obligatory, safety requirements for the buildings and the building services including plumbing and solid waste management with a view to deliver an integrated facility for the intended purpose, considering the design parameters well.
- IV. All the amenities, facilities, and provisions regarding the scope of work shall be provided as per the norms and guidelines of National Building Code-2026 (NBC) norms. In addition, other provisions of the NBC shall be applicable for Fire and life safety of the building and amenities for differently abled persons.
- V. Prepare detailed designs and drawings for architectural floor plans, elevations, sections, and detailing thereof drawings for structural works, fire and life safety and building services such as electrical works, MEP, Information & Communication Enabled ELV Installations, plumbing

Services, landscaping, signage, and outer display structures/ installations as per scope, following the latest BIS/IRC codes for materials, design and construction, relevant CPWD/OPWD Specifications, NBC and IRC-SP-12-2015.

- VI. *Note: In the absence of any definite provision in the technical specifications contained herein, reference may be made to the latest CPWD, MORTH, IRC, CPCB, GRIHA, NBC and IS codes, in that order. Wherever these are silent, the construction and completion of the works shall conform to sound engineering practice and in case of any dispute arising out of the interpretation of the above, the decision of the Engineer-in- Charge shall be final and binding on the Contractor.*
- VII. Toilet requirement with WC, Urinal, Wash basins, Cleaners Sink, drinking water facilities shall be based on the applicable standards.
- VIII. Recycled waste and rainwater to be used for horticultural purposes.

**Indicative design considerations for the building (Model-I) have been provided in the following table.**

<b>Sl. No</b>	<b>Components Name</b>	<b>Provisions</b>
1	Main School building (Ground Floor) Built-up area= 1783 sqm. Min 0.45 mt from the fines ground level Height of Ground floor = 3.6 m from Plinth level (F.F.L.)	<b>Entrance Porch</b> (Ht. from F.G.L. =4.2 m) <b>Entrance verandah</b> <b>Lobby (Front side)</b> <b>Visitors' waiting area.</b> <b>Staff waiting</b> <b>Principals' Room</b> with attached toilet– 1 No. <b>Office</b> – 1 No. <b>Staff Room with attached toilets</b> <b>Classrooms</b> – 7 Nos. <b>Sishu Vatika</b> – 1 No. <b>Vocational training room</b> – 1 No. <b>Math Lab</b> – 1 No. <b>Library Room</b> – 1 No. (with reading space for students) <b>Computer Lab</b> – 1 No. <b>Kitchen with store and wash (Mid-Day Meal)</b> – 1 No. <b>Dining Hall</b> – 1 No. <b>Storeroom</b> <b>Lobby (Rear side) with veranda</b> <b>Electrical room</b> <b>Toilet Blocks (2 nos.):</b> Boys' Toilets Girls' Toilets Differently abled toilet (1 no.) <b>Drinking Water Facility</b> <b>Staircase with Lobby</b> – 2 Nos. <b>Central courtyard with Stage</b> <b>Accessible barrier-free ramp from finished ground level (FGL) to plinth level.</b>

#### **d. Project Details**

The project shall be executed on a **Lump Sum Turnkey Design and Build model**, scope consisting of the survey, planning & design (architectural, structural, landscaping, and non-structural), execution, completion, obtaining required statutory clearances and handing over of the project to the Employer.

As mentioned earlier, the scope of this tender is development of components in the vicinity of to improve the experience of visitors and locals alike.

#### **The sub-components are as follows:**

##### **(Model-I, Option-01, non-DMF area):**

1	Boundary Wall & Gate complex
2	Barbed Wire Fencing
3	Approach Road & Parking
4	Landscaping & Horticulture

##### **(Model-I, Option-02, DMF area):**

1	Boundary Wall & Gate complex
2	Barbed Wire Fencing
3	Approach Road & Parking
4	Walkway/Pathway
5	Landscaping & Horticulture
6	External Water Supply & Sewerage System
7	Rainwater Harvesting
8	Fire Fighting (EXTINGUISHERS)
9	External Electrification (Transformer)
10	External Illumination
11	On grid Solar (5 KW)
12	Signages & Garbage Disposal
13	Bust Size Statue & Pedestal (Godabarisha Mishra & Others)
14	Play Area Development

The above sub-components have been discussed in the following paragraphs for understanding of the prospective bidders. The-bidders are advised to go through the scope in detail bearing in mind the following:

The scope of sub-components or works are minimum and indicative in nature. It is expected that the bidder shall undertake due diligence on their part by referring to the scope herein, the associated drawings given in Section 7 for arriving at the final estimate.

The components to be developed under the project are mentioned below.

## 1. SCHOOL BUILDING

The building shall be an RCC framed structure, the height from finished ground level to plinth level shall be minimum 450 mm. floor height of 3.60 m. and the headroom height of 2.40 m. The substructure and superstructure masonry shall be constructed using fly ash bricks. All exterior and interior walls, as well as RCC structural members, shall be finished with cement mortar plaster of approved thickness and mix proportion as specified in the relevant drawings and technical specifications.

The flooring of all the areas (rooms, corridors, lobby, staircase, veranda, ramp, steps etc.) of the ground floor shall be furnished with 25 mm thick Kota stone flooring excluding the headmaster's room and the toilets and 16 mm thick Kota stone is to be laid as skirting of 150mm ht.

The flooring of the headmaster's room shall be furnished with vitrified tiles of size 600mmx600mm, 8-10 mm thickness and skirting of ht. 150 mm.

The toilet attached to headmaster's room; toilet attached to staff room and common toilets shall have antiskid full body vitrified tile flooring with ceramic tiles as dado up to 2.10 mtr height.

Size and specification for doors, windows, and ventilators are to be referred as per drawing and schedule mentioned below.

<b>SCHEDULE OF DOORS AND WINDOWS</b>					
<b>SL. NO.</b>	<b>TYPE</b>	<b>DESCRIPTION</b>	<b>WIDTH (mm)</b>	<b>HEIGHT (mm)</b>	<b>NOS.</b>
1	D	Double shutter Flush door (i.e. Main door) with 300 * 600 glass panel	2400	2400	4
2	D1	Double shutter flush door with 300 * 300 glass panel	1200	2400	27
3	D2	Single shutter flush door with 300 * 300 glass panel	1050	2400	12
4	D3	Single shutter flush door	900	2100	5
5	D4	FRP door	750	2100	15
6	D5	Double Leaf, M.S Grill door (Exit doors at G.F.)	1800	2100	5
7	D6	Single panel MS door (Headroom door)	1050	2100	2
8	W	UPVC glazed window	1200	1500	80
9	V	UPVC ventilator	600	600	17

## FINISHING SCHEDULE:

DESCRIPTION	FLOORING	SKIRTING/ DADO	INTERNAL WALLS	EXTERNAL WALLS	CEILING	DOOR	WINDOW	VENTI- LATOR	RAILING	TOILET FIXTURES
CLASSROOM, CORRIDOR, OFFICE, VISITOR ROOM, TEACHERS' COMMON ROOM, STAIRCASE, LOBBY AND OTHER SPACES	KOTA STONE	KOTA STONE	PLASTIC EMULSION PAINT WITH DOUBLE COAT PUTTY AND SINGLE COAT PRIMER (ASIAN PAINTS, BERGER, DULUX OR EQUIVALENT BRAND)	SINGLE COAT PRIMER WITH DOUBLE COAT OF WEATHER- PROOF PAINT (ASIAN PAINTS, BERGER, DULUX OR EQUIVALENT BRAND)	PLASTIC EMULSION PAINT WITH DOUBLE COAT PUTTY AND SINGLE COAT PRIMER (ASIAN PAINTS, BERGER, DULUX OR EQUIVALENT BRAND)	WPC FRAME (125 X 63 MM) WITH 30 MM THICK FLUSH DOOR (MERINO, GREENLAM, KITPLY)	DOUBLE TRACK UPVC FRAME SLIDING WINDOW WITH 6 MM TOUGHENE D GLASS		SS RAILING	IWC ODISHA PAN, 2-WAY BIB COCK, HEALTH FAUCET, COUNTER- TOP WASH BASIN WITH GANITE TOP, ETC. (JAQUAR, HINDWARE, GROHE OR EQUIVALENT BRAND)
PRINCIPAL ROOM,	FULL BODY VITRIFIED TILE (600 x 600 mm) (KAJARIA, SOMANY, NITCO, JOHNSON & JOHNSON OR EQUIVALENT BRAND)	FULL BODY VITRIFIED TILE (150 x 600 mm) (KAJARIA, SOMANY, NITCO, JOHNSON & JOHNSON OR EQUIVALEN T BRAND)	PLASTIC EMULSION PAINT WITH DOUBLE COAT PUTTY AND SINGLE COAT PRIMER (ASIAN PAINTS, BERGER, DULUX OR EQUIVALENT BRAND)		PLASTIC EMULSION PAINT WITH DOUBLE COAT PUTTY AND SINGLE COAT PRIMER (ASIAN PAINTS, BERGER, DULUX OR EQUIVALENT BRAND)	WPC FRAME (125 X 63 MM) WITH 30 MM THICK FLUSH DOOR (MERINO, GREENLAM, KITPLY)	DOUBLE TRACK UPVC FRAME SLIDING WINDOW WITH 6 MM TOUGHENE D GLASS			
TOILETS	ANTISKID VITRIFIED TILES (600 x 600 mm) (KAJARIA, SOMANY, NITCO, JOHNSON & JOHNSON OR EQUIVALENT BRAND)	2100M HIGH, GLAZED CERAMIC TILE (450 x 300 mm) (KAJARIA, SOMANY, NITCO, JOHNSON & JOHNSON OR EQUIVALEN T BRAND)	PLASTIC EMULSION PAINT WITH DOUBLE COAT PUTTY AND SINGLE COAT PRIMER ABOVE DADO TILE (ASIAN PAINTS, BERGER, DULUX OR EQUIVALENT BRAND)		PLASTIC EMULSION PAINT WITH DOUBLE COAT PUTTY AND SINGLE COAT PRIMER (ASIAN PAINTS, BERGER, DULUX OR EQUIVALENT BRAND)	WPC FRAME (45 X 90 MM) WITH 30 MM THICK FRP DOOR PANEL (DARWAJA MANUFACTU RER INDUSTRIES, MATHURA SIVA SAKTI FIBRES & UDYOG O EQUIVALENT)		UPVC VENTILAT OR WITH IN-BUILT EXHAUST FAN		

- Providing **expansion joint** in concrete/masonry structures at specified intervals to accommodate thermal expansion, contraction, and structural movement, using approved filler board, sealant and joint cover plate complete in all respect as per CPWD specifications and direction of Engineer-in-Charge. Expansion joints shall be properly sealed with bitumen impregnated fibre board/pre-moulded filler and elastomeric sealant to prevent leakage and cracking of the structure.
- Provision of expansion joint shall be made as per the requirements of the structural design drawings.  
The contractor shall provide expansion joints at appropriate locations and intervals as recommended by the Structural Engineer and approved by the Engineer-in-Charge, in accordance with the approved structural design and relevant specifications.
- Providing thermal resistant treatment/insulation to roof or wall surfaces using approved insulating materials of specified thickness, laid and finished properly to reduce heat transmission and improve thermal efficiency of the building, complete in all respect as per CPWD specifications and direction of Engineer-in-Charge. The insulation material shall be durable, moisture resistant and capable of withstanding climatic variations without deterioration.
- The Ground floor consists of entrance lobby, classrooms – 7 nos, Sishu Vatika– 1 no, principals' room with attached toilet– 1 no, staff room with attached toilets, storeroom, staff room, visitors' waiting area, office– 1 no, Vocational training room– 1 no, Math lab – 1 no, Library room – 1 no. (with reading space for students), computer room / smart classroom – 1 no, kitchen with store and wash (mid-day meal) – 1 no, dining hall – 1 no, toilet blocks, boys' toilets, girls' toilets, differently

abled toilet, drinking water facility, electrical room, back side lobby hall with veranda, staircase with lobby – 2 nos, central courtyard with stage and accessible barrier-free ramp from finished ground level (FGL) to plinth level.

- The Fire safety Requirement and HVAC works of this building must be complied as per statutory norms and NBCS-2026.
- All the toilet ventilators shall be made of UPVC with in-built exhaust fan.
- Providing and fixing of Stainless-steel railing using 40mm diameter balustrades and handrail of 50mm diameter (SS-Grade 304) as approved by the Engineer-in charge.
- All the windows shall have M.S. grill of approved design as per Engineer-in charge.

## **2. GATE COMPLEX WITH SECURITY ROOM (1 NO.)**

A RCC framed Gate complex shall be constructed with the following set of structures which shall act as the main entry/exit:

- Gateway with 4 set of columns and beams shall have an overall size of 6mt. wide and height of 4mt.
- MS/SS grill gate of 4mt. wide and height of 1.8mt. and wicket gate in the balance width.
- Security room of size 7.5 sqm. attached to the gateway.
- A cowcatcher shall be provided in the middle of the gateway complex.

The Security room of a built-up area of 7.50 sqm (2.5m x 3.0m) shall be constructed along with main gate complex. The structure shall be an RCC-framed structure with fly ash masonry in the superstructure. The steps shall be made of Kota stone, minimum 20 mm thick including double-edge moulding and groove cutting.

It shall have UPVC windows and ventilators with MS grill and WPC door shutters of minimum 35 mm thickness with WPC frame. 304-grade Stainless steel railing to be provided.

A set of 12 nos. of ISMB section **Cowcatcher** to be provided with 2 nos. of entrance gate having 6mt length x 2.1 mt height. Providing and Fixing Logo 3600mm dia fixing of led light as per the instruction of Engineer-in-charge.

The Main gate shall be of either MS or SS (304 grade) and the design shall be as per the approved drawings by the Engineer-in charge.

## **3. COMPOUND WALL & BARBED WIRE FENCING**

A compound wall of 100 mt. length on the front side sides of the development area along with barbed wired fencing in the rest of the boundary shall be constructed to ensure safety in the premises. The compound wall shall be of total height 2.1mt out of which 1.5 mt ht. shall be of 250mm thick brick masonry and balance 0.6mt. shall have MS grill. And the compound wall shall also have RCC

Columns at 3m interval with brick masonry around them of 250 mm minimum thickness. The design of the boundary wall shall be as per approved drawings by the Engineer-in charge.

Providing and fixing G.I. barbed wire fencing with RCC posts including excavation, PCC foundation, fixing posts, struts, stretching barbed wire and all complete as per approved drawing and direction of Engineer-in-Charge.

Spacing (interval) of RCC/angle iron fencing posts for institutional school building barbed wire fencing shall be kept at 3.00 metre centre to centre (c/c), using G.I. barbed wire conforming to IS:278, generally of 12 SWG heavy galvanized grade, with corner and every 15th post provided with struts.

#### **4. MISCELLANEOUS WORKS**

##### **a. Internal road (paved road):**

Internal roads shall have a cement concrete paver block of 80 mm thick & M-40 grade as conforming to IRC SP-63:2018 or latest code.as per direction of Engineer-in-Charge.

##### **Parking and paving:**

- Parking and paving have been proposed using a cement concrete paver block 80 mm thick of M-40 grade as conforming to IRC SP-63:2018 or latest code.
- Providing of precast kerb stone of size 600mm x 300mmx150mm of M-30 grade of approved make design, colour& size made by block making machine with proper compaction fixed in required pattern etc as pre EIC.
- Parking lay-out consisting of 4 & 2-wheeler parking demarcations by paver blocks shall be provided as per approved design drawings by the Engineer-in charge.

##### **b. Signages & Garbage Disposal:**

**Signage** shall be as per the following:

- SS texts of height 300mm shall be used for name & location of the school at main gateway.
- Acrylic/PVC Internal signages for nomenclature of the rooms & other spaces shall be installed as per approved design by the Engineer-in charge.
- External(weatherproof) signages for nomenclature of the premises shall be installed as per approved design drawings by the Engineer-in charge.

##### **c. Garbage Disposal:**

For collection of garbage generated in the whole premises, 10 nos. each of Plastic Waste bin Rectangular along with fabricated MS stand, Plastic Waste bin without Wheel with Push type Top load along with fabricated MS stand and Plastic Waste bin without Wheel with Swing lid type Top load along with fabricated MS stand would be strategically located in the entire site for the convenience of the visitors.

1	Planting of Ornamental spp (30"x30", 6'x7' Height Poly pack.	50	Nos.
2	Slow growing ornamental species. (i.e. Asoka (sarca asoka), Baula (mimusopselengii), Bottle brush (callisteminlanceolatum), Neem (azadirchtaindica), Karanj (pangameapinnata), Debdaru (polyalthialongifolia), Aonla (embelicaofficinalis), Sunari (cassia fistula) & Kanchan (bauhinia variegata)	50	Nos.
3	Shrub species (i-Local species). (i.e. Mandar (hibiscus rosasinesis), Tagar (tabarnae montana coronaria) , Kaniar (thevetia spp), Karabira (nerium oleander)	50	NOS
4	Creepers/ Climbers/ Ground covers (Provision) (i.e. Jui(jasminumofficinale), Jai (jasminum pubescence), Madhumalati (quisquilisindica)	25	NOS

Non-biodegradable waste is made to be segregated and sent from the collection yard to recycling units. No plastic use zone will be created.

**d. Landscaping, Horticulture & Development of Playground:**

- Landscaping is a composition of both soft scape and hardscape to result in harmony of the Site components and surrounding as well as convenience of the users. The proposed Master plan comprises both softscape and hardscape to allow different activities. This will ensure proper access to the amenities and facilities are provided in the area, while at the same time having appropriate mechanisms in place to reduce the runoff, which was earlier overburdening the drainage systems around the project.
- Key varieties of trees/plants/shrubs, the indicative quantities of which are to be planted are as follows:
- Water supply points shall be provided in each landscaped area.
- Landscaping work along with irrigation provisions shall be done as per approved Landscape design drawings by the Engineer-in charge.
- The existing or new **playground** shall be developed by properly filling, levelling, dressing with natural grass top.

**e. Dismantling, Demolition, Land Development and Site Filling:**

Dismantling, and demolition of existing structures if any area, site filling inside the project area is in the scope of the agency.

**f. External Drainage:**

Planning, designing, supplying, installation, testing & commissioning of surface Rain water and its disposal system is to be designed as per the CPHEEO guideline, the proposed site has underground surface drain through NP-3 Hume pipe and with collection chambers with perforation cover slabs within the project premises, The provisions also are made for the surface water to be sent to the nearby water body through percolative / saucer drain constructed under the pathway area as per the detailed in the drawing. The surface water from other areas are collected through the surface-covered drain to the nearby developed area, are collected water after use in horticultural areas, but

the Surface drain along with the plaza and parking road with cover slab perforated intermittently. The final entry road drain to be constructed in line with the existing drain size and slope and additional quantity water to be discharged from the developed complex.

**g. Septic Tank:**

Providing and constructing underground RCC Septic Tank of required capacity with RCC base slab, side walls, partition walls and top slab in M25 grade concrete using Fe-500 TMT reinforcement, including excavation, sand filling, PCC bedding, cantering and shuttering, internal waterproof cement plaster, inlet and outlet pipe arrangement, vent pipe, manhole cover, testing and backfilling complete in all respect as per IS:2470 (Part I & II), CPWD specifications and direction of Engineer-in-Charge.

**h. Fire-fighting:**

Planning, designing, supplying, installing, testing & commissioning of Firefighting System, comprising of Portable Fire Extinguishers as and where required (as per Fire Norms and NBCS-2026).

**i. Statue**

Providing, supplying and fixing Pandit Godavarisha Mishra statue of 600 mm high carved out of single piece black granite stone of approved quality fixed over a pedestal of base minimum 1200 X 1200 mm at the bottom & minimum 600 X 600 mm at top and 1500 mm high from the base platform of 2400X 2400 mm. The height of the platform shall be minimum 750 mm from the finished ground level. The platform and pedestal shall be with Brick masonry including excavation of foundation, PCC bed, brick masonry in cement mortar, plastering with 20mm thick granite stone cladding, inscription plaque, anchoring arrangement, transportation, erection and all complete as per approved drawing and direction of Engineer-in-Charge.

**MANDATORY REQUIREMENTS:**

**A. Waterproofing**

Providing and applying waterproofing treatment on RCC roof slab/terrace, sunken portion, chajja, balcony, toilet block, water tank or other specified surfaces by thoroughly cleaning the surface, repairing cracks and honeycombs with polymer modified mortar, providing cement mortar fillets at wall-floor junctions, and applying two coats of polymer modified cementitious waterproofing compound (approved make) mixed and applied strictly as per manufacturer's specifications. The treatment shall include preparation of surface, primer coat wherever required, reinforcing mesh at junctions and cracks, waterproofing coating, protective screed of cement mortar with integral waterproofing compound, curing, pond testing for minimum 72 hours and making good all disturbed portions complete in all respects as per IS 3067, IS 2645 and as directed by the Engineer-in-Charge.

Providing waterproofing treatment to sunken floor by applying approved polymer modified cementitious waterproofing coating in two coats over properly prepared surface, including crack

filling, treatment of pipe penetrations, wall-floor junctions, protective screed, curing, water retention test for 72 hours and making good all disturbed portions complete as per manufacturer's specification and direction of the Engineer-in-Charge.

**B. Anti-termite treatment**

Anti-termite treatment to be done by drilling holes @ 300mm c/c both ways up to soil level and filling with a solution of Chlorpyrifos 20 EC or Lindane 20 EC and outside of the wall using Chlorpyrifos 20 EC or Lindane 20 EC as per IS 6313 (Part 1, 2, 3): 200, etc complete as per direction of Engineer-in-charge.

**4. SITE BY SITE DELIVERABLES:**

**Prepare Design basis Report, a Detailed design comprising of the following but not limited to the following:**

- a. Demolition of existing structures, if required.**
- b. Cleaning of existing vegetation**
- c. Propose masterplan development.**
- d. Architectural & structural floor plan, elevation, section, and other working details**
- e. Landscaping layout**
- f. Power demand, water demand, sewerage generation, storm water run-off and other calculations.**
- g. Single line diagram/ concept schematic for power distribution, water balance, sewerage network, storm water network with recharge pit details, etc.**
- h. Structural design basis report, architectural design basis report, MEP design basis report**
- i. Road/pavement alignment**
- j. Road/pavement cross-sections**
- k. Utility layout drawings & sections**
- l. Coordinated utility sections**
- m. Detailed design calculations**
- n. Good for construction drawings**
- o. Vendor document and drawing**
- p. Site integration with external services**

#### **q. Site grading and development**

1. Whenever required or necessitated by the site conditions, modify designs as well as suggest solutions to the problems that come across during actual execution.
2. Carry out the necessary survey, investigations, coordination with various utility departments, and other works required to ensure completion of the work.
3. The scope shall include taking all necessary statutory approvals from WATCO, PHED, OWSSB, Electrical Inspector, TPCODL, PKDA, PMC, PWD, and other required departments.
4. The scope shall include design, construction, fabrication at site/ factory, installation, testing, and commissioning including conducting necessary Factory tests, on-site tests, etc. required for successful completion of the work.

#### **5. SCOPE FOR EXECUTION OF PROJECT:**

- a. Carry out encroachment, drain outfall, road alignment, and other required data to carry out the detailed design, nearby integration points for the utilities, superimposition of cadastral maps, etc.**
- b. Conduct necessary analysis incorporating, wind data, and earthquake data as per relevant clauses of NBC -2026**
- c. Prepare plans, designs, detailed drawings, etc. as per the latest BIS and NBC guidelines based on the furnished filed survey data , soil and geotechnical investigations data.**
- d. Prepare a detailed site plan of the area using total station etc.**
- e. Prepare a key map (with scale 1:5000) showing the location of the buildings investigated and rejected and the important structures, in the vicinity. The reference to the position of the benchmark, location of the trial pits or bore-holes giving identification number for each bore connected to the datum and location of all nullahs, and buildings.**
  - i) Prepare detailed designs, prepare drawings for buildings and approaches following the latest IS codes for design and construction of buildings and NBC specification and IS codes and obtain approval of the Programme Management Consultant / as authorized by Employer.
  - ii) Carry out load testing on piles as per BIS guidelines and accordingly modify the designs of the foundation (pile and pile cap etc.) if necessary, from a stability point of view.
  - iii) If an alternative to piling foundations like ground improvement technology is adopted. The same shall be executed by a qualified specialist design build install contractor with all necessary tests. On all piles including test and working, pile load tests shall be conducted as per the latest provisions of the applicable IS code. PIT is mandatory on 100% of working and test piles.
  - iv) Brief details of the various elements of the proposed Project are presented in the following section.

The activities required for the completion of the Project on a turnkey basis include

- Planning of the Facilities including functional analysis, workflow analysis etc.
  - Design development including preparation of architectural brief, design concept, concept for services, design basis report etc. It may be noted that the concept plans forming part of the RFP documents shall be the basis for this.
  - Detailed design engineering including architectural design and construction documents, structural detailing, Lighting, and other electrical design & landscape design etc.
  - Building construction and installation of all services
  - Procurement, installation, testing, and commissioning of requisite equipment as per specifications provided.
  - Project management to ensure completion of the Project as per the specified timelines.
  - Handing over of the facilities after fulfilling all the obligations under “Employer’s Requirement”
- v) The scope shall include taking all statutory approvals required for the successful completion of the project. The approvals required shall comprise of Fire NOC, Electrical Inspector NOC, SPCB NOC, Environmental clearance, CTE, CTO, and other necessary approvals as deemed required during execution including payment of a statutory fee.

**A. TIMELINE FOR SUBMISSIONS:**

The reports must be submitted in the following phasing in the number of copies indicated against each of them. The time for the design stage is 60 days from the date of commencement. This period includes the time for all types of survey & investigation as listed in Para-2, soil exploration and laboratory testing, detail design, the draft and final design reports, drawings, technical specifications, methodology of work, and all other associated reports and documents.

However, the total period of the contract including Survey, Investigation, Design, and Execution will be (Period Provided in Contract Data). The defect liability period shall be (Period Provided in Contract Data) from the date of completion of the project.

**Schedule for Submission**

The reports must be submitted as per the following schedule:

Sl No	Description	Schedule for completion
A.1	Inception report* b) Submission of application of Statutory Approval/NOC from the Development Authority	10 days from the date of commencement

A.2	Details of all Survey including laboratory test reports for Construction Materials and design Mixes	30 days from the date of commencement
A.3	Draft Architectural Drawings with detailed Engineering Designs and technical specifications & methodology along with Design Basis Report	15 days from the date of commencement
A.4	Quality Management Plan & Environment, Health and Safety Manual.	30 days from the date of commencement
A.5	Final Architectural Drawings with detail Engineering Designs and technical specifications & methodology	25 days from the date of commencement
A.5	Changes during Construction	As and when referred by the Department
A.6	Monthly Progress Report	10 <sup>th</sup> day of Succeeding Month
A.7	As-Built Drawing	As provided in the Contract Data
A.8	Consolidated Booklet Containing All Approvals, Clearances, NOCs in connection with the Project	With as built Drawings
A.9	Inventories with Warranties and User's Manual	With as built Drawings

**Note:** \* Inception report will broadly contain Site Appreciation, Identification of Secondary Data Requirement, Detailed, Breakdown of Investigations and Surveys to be carried out and a work program.

**A.2 FINAL OUTPUTS (REPORTS, DRAWINGS etc.) Required from the Bidder**

- |   |          |
|---|----------|
| A. Inception report   | 7 Copies |
| B. Report with details of all surveys including laboratory test                                 | 7 Copies |
| C. Draft detailed architectural drawings and engineering designs report, drawings, calculations | 7 Copies |
| D. Final detailed architectural drawing,  |          |
| i. engineering designs report, drawings, calculations   | 7 Copies |
| ii. Design Basis Report   | 7 Copies |
| E. Good for construction drawings   | 7 Copies |

Except the inception report, all other reports as listed above shall be submitted by the Contractor to the Employer only after obtaining approval of the same from any National Institute of Repute / Govt. Engineering College at Contractor's own cost. Such approved documents need to be furnished to the Employer within the stipulated datelines as mentioned at Section-4 in the contract data.

**B. SERVICES TO BE PROVIDED BY THE EMPLOYER**

The Employer will provide the following data to the Bidder on request. if available.

- **Indicative topographic Survey and other associated data.**
- **Geotechnical survey data**
- **Site plan**
- **Any other relevant secondary data, to the extent available in comprehensive manner.**

The Employer will not provide office accommodation, vehicles, survey or any other equipment to the Contractor. The Bidder shall make his own arrangement for their office staff for each of the field supervision teams including operation and maintenance, vehicles, and equipment.

### **C. SECRECY**

The contractor shall take all steps necessary that all persons employed on any work in connection with the contract have noticed that the Indian Official Secrets Act 1923 applies to them & will continue so to apply even after the execution of such works under the contract. The contract is confidential and must be strictly confined to the contractor's own use (except so far as confidential disclosure to sub-contractors or suppliers as necessary) and for the purpose of the contract.

All documents, copies thereof & extracts therefrom furnished to the contractor or submitted by the Contractor shall be returned to the Employer on the completion of the work / works or on earlier determination of the contract. All the drawings, designs and documents of this project shall be the property of the Employer and shall not be reproduced by the Contractor either full or by part, for any purpose whatsoever may be, without written permission of the Employer, any time afterwards, once the As Built submission is over and complete. The Bidder may retain a copy of such documents but shall not use these documents for purposes unrelated to this Contract without the prior written approval of the Client.

### **D. APPENDIX**

#### **Appendix-I: SCOPE OF BUILDING WORKS**

The bidder shall submit his Design Basis Report covering all aspects as given below or more with specific details and not generically.

#### **1.1. General:**

The project shall be executed on Lump Sum Turnkey basis. General scope of the work of the project shall include but not limited to the following:

- a) To facilitate the contractor for planning and design and to speed up the execution, the Soil testing & Geo-technical study report and Total Station Survey , GPRS survey of the project area shall be provided by the employer , the cost incurred by the employer towards above shall be recovered from

the constructions bill. The survey for additional project area if required shall be done by the contractor at this own risk. The contractor must consider seismic load, wind load etc. while developing structural and MEPF designs conforming to all statutory norms and standards after getting approval for the architectural design from the employer.

- b) For Development of architectural drawings including preparation of architectural brief, design concept, concept for services etc., it may be noted that the concept plans forming part of the Bid documents shall be of this basis. This would also include high resolution renderings as may be required and walkthroughs with voice over (bi-lingual) and suitable sub-titles.
- c) Preparation of services plans to include all details of plans, elevations, and sections with details of electrical works, ventilation, water supply, and drainage & sewage disposal system.
- d) Procurement, installation, testing and commissioning of requisite equipment as per specifications provided. Samples of all materials required for testing is included in the cost of work. Expenditure for all mandatory tests and those to be conducted as per direction of Engineer In-charge shall be borne by the contractor. All testing in house or through external laboratory shall be completely borne by the contractor including cost of transportation of samples to the testing locations or laboratories.
- e) Contactor shall establish an advanced in-house laboratory with adequate facility for carrying out all routine field tests required during execution of work at their own expense.
- f) The approved manufacturers of various finishing items, fittings/ fixtures/ equipment/ components/accessories have been mentioned in the List of Approved Manufacturers later in the section. The Contractor shall get the samples of these items approved by the Employer before their use/ utilization in the works. A higher or equivalent make can be utilized after obtaining prior approval of "Engineer-In-Charge" in writing.
- g) The price quoted by the contractor shall be deemed to include all expenses towards material, labour, transportation, machinery, camp arrangements etc.

## **1.2. Project Management, Clearances & Certification**

The Contractor shall obtain approval to the design, drawings, and specifications of all components of the building, from any institute of repute at its own cost with prior approval of the employer. The Employer shall give clearance for construction on all sketches, drawings, reports and recommendations and other matters and proposals submitted for approval by the Contractor in such reasonable time as not to delay or disrupt the performance of the Contractor's services.

- a) Planning of the project activities including work breakdown structure and their timelines thereof, in MS Projects/ Primavera and submit the same to the authority for progress monitoring throughout the span of the project.
- b) Project Management to ensure completion of Project as per the specified timelines.

- c) Obtaining NOC from Development Authority/ Municipality, PHEO, Fire authority, Environmental Clearance from SPCB (if applicable), and any other statutory approval required for the project.
- d) Handing over of the facilities after fulfilling all obligations of the Contractor and confirming to Employer's requirement
- e) Taking up the works listed for Defects Liability Period and closing the project.
- f) Submission of Daily Labour Report and Weekly / Monthly Labour Payment Report.

### 1.3. **ARCHITECTURE & LANDSCAPE**

The scope of work for the project is about construction of the buildings and other facilities and installation of all services to release the concept plan with fully functional services and with a view to providing the intended facilities to the users. The scope of civil work shall comprise, but not limited to the following. Specifications for all the works have been provided in Section-8.

- a) Construction of the building and installation of all services keeping in view the mandatory requirements of the Employer.
- b) Overhead tank, underground sump and storage tank for rainwater of adequate capacity to be provided as required.
- c) Waterproofing of foundation, roof, toilets, underground sump and exposed surfaces to be done under the supervision of expert agencies.
- d) Anti-termite treatment shall be done as per specifications.
- e) Storm Water Drains: Providing and laying precast/ cast in situ RCC storm water drain with perforated removable/fixed covers including necessary culverts etc. complete and as per direction of Engineer.

*The contractor should visit and examine the site of work and satisfy himself as to the nature of existing roads and other means of communication and other details pertaining to the work and local conditions and facilities for obtaining his own information on all matters affecting the execution of the work. No extra charge made in consequence of any misunderstanding or incorrect information of any of these points or on ground of insufficient description will be allowed*

The Architecture, Interiors, Softscape & Hardscapes includes design, detailing, procure, supply, construction, installation, furnishing, equipping, testing, commissioning and execution for **School Buildings under Godabarisha Mishra Adarsha Prathamika Vidyalaya Scheme at Pandua (Model-I) & Madanpur (Model-I) in the district of Keonjhar, Odisha on turnkey basis.** that will include Various facilities as per scope of work with the Employer's Requirements.

**Design and detailing shall include:**

- *Appointment of consultants, if required.*

- *Preparation of coordinated GFC drawings*
- *Obtaining Employers / Engineer approval on the GFC drawings*
- *Preparation of approval drawings, documents, calculations, etc., as may be necessary by the statutory authorities, other relevant stages.*
- *Providing material samples and mock-ups and obtaining Employers / Engineer approval for the same.*
- *Preparation of As-built drawings*

Procurement, supply, construction, installation, furnishing, equipping, testing and commissioning shall be carried out for the following works:

- *Excavation*
- *Concrete work*
- *Masonry*
- *Plastering & Painting*
- *Flooring and finishing*
- *Fabrication works*
- *Good garden earth & manure*
- *Trees, shrubs, groundcovers, lawns*

*Detailed Scope of Work*

- *School building*
- *Parking development*
- *External Illumination*
- *Installation of SIGNAGES*
- *Landscaping works*

**MOCK-UP**

As deemed necessary by the Employer/ Employer’s Representative/ PgMC, Contractor shall execute necessary mock-ups of all items/activities related to the Work performed required under this Contract as indicated below and the cost for the same shall be deemed to be included in the Contract price.

**THE FOLLOWING MOCK-UPS SHALL BE EXECUTED BY THE CONTRACTOR:**

Item	Extent / Size
1. <i>Paver Blocks/flooring</i>	<i>Hard &amp; soft finishes - approx. 50 sft,including all</i>

	<i>typical interfaces and details.</i>
<i>All finishing items including but not limited to flooring, wall cladding, etc.</i>	<i>Toilets - 01 module including all fittings, fixtures and modular partitions</i>
<i>Railings and other metal fabrication work.</i>	<i>Min 2.0 RM including all types of details [turns, bends, ends, etc.]</i>

**DOCUMENTS AT SITE**

The contractor shall maintain in a conspicuous place on the site a copy of development permission and a copy of approved drawings and specifications.

**AS-BUILT DRAWINGS.**

**Progress As-Builts/GFC drawings**

During construction, Contractor shall keep a marked-up-to-date set of progress as-built / GFC drawings and specifications on the Site as an accurate record of all deviations between Work as shown and Work as installed. These drawings and specifications shall be available to the Employer for inspection at any time during regular business hours.

**FINAL AS-BUILTS**

- A. Contractor shall at his expense and not later than thirty (30) calendar days from Taking over Certificates and before Final Payment furnish to Employer a complete set of marked-up as-built reproducible drawings and specifications with “AS-BUILT” clearly printed on each sheet and on the specification cover.
- B. Contractor shall accurately and neatly transfer all deviations from progress as-built to final as-built drawings and all annotations from progress as-built to final as-built specifications.
- C. Contractor will provide seven (7) copies of the as-built drawings in addition to which one (1) is in fully editable electronic format in a form acceptable to the Employer. The employer shall provide an editable electronic copy of the requisite drawings such as floor plans, to facilitate the preparation of electronic as-built- drawings.

**ENDORSEMENT**

Contractor shall sign each final as-built drawing and the cover of the as-built specifications and shall note there on that the recording of deviations and annotations is complete and accurate.

**SPECIFICATIONS**

The specifications forming part of this Contract have been drawn up with all possible care and are intended to cover the supply of all the materials, tools, plants and equipment, labour and the execution of all works necessary to complete the entire Work in all respects under this Contract. In case there are any details of construction or materials which have not been referred to in the

specifications, detailed descriptions of items, schedule quantities, or the drawings but which are usual or essential in the true completion of the purpose of the Work, the same shall be deemed to have been included in the price quoted by the contractor. Wherever specifications are not stipulated, the Work shall be as per latest ISI specifications and/or directed by the Employer/Employers Representative and Consultant/OBCC following good Engineering practice.

#### **1.4 CIVIL SCOPE OF WORKS**

The Scope of Work under this contract includes but is not limited to the following in relation to the design and construction of the Works

- Contractor shall prepare and submit Design Basis Report for approval based on the design Intent.
- Site Topographic Survey and Geotechnical Investigations as deemed necessary by the Contractor as per BIS latest codes, NBC, etc. as applicable through any nationally accredited lab. An employer may verify the results submitted by a contractor if need be.
- Construction enabling works like site office, labour camp, material stacking, laboratory, etc. shall be the responsibility of the contractor.
- Setting out of the works.
- Site Clearing, dewatering, Site Grading, and Excavation, disposal of excavated earth and bailing out & disposal of water.
- Contractor shall do Structural Design based on approved Civil Structural Design Criteria.
- Preparation of complete structural design, drawings for foundation, superstructure, and for other related structures in the housing pocket. i. e. UGRs, pump house, meter room, , gate, compound wall, barbed wire fencing, chambers, trenches, etc. to be provided as per provision contained in IS codes/ NBC but not lower than the minimum criteria mentioned in the tender., Scales for each detail in drawing and drawing sheets shall be used as per BIS standards.
- Contractor shall submit a Structural stability certificate for 10 years and a life span building structure certificate for 50 years for all structures and components to Employer at his own cost.
- Construction of all Civil Structures and Building finishes. Work of all structures in proposed works.
- For all structural designs and drawings, the contractor must get the proof check done by accredited agencies at his own cost before submitting for the approval of the client.
- One Copy of structural design calculations and details in soft and hard copy (latest version of the software) based on the approved building plan shall be submitted before commencement of the construction work at the site for information and record.
- Submission of Detailed Engineering Designs, Drawings, Process Calculations, and Data Sheets for approval.

- Execution of all Civil Works at the Site including Construction, Erection, Testing and Handing over.
- Design and Construction of Internal Roads, Curbs, Pavements, Parking Spaces, Compound Wall, water supply and sewage disposal Storm Water Drains etc.
- Water tanks shall be designed for limited crack width as per BIS code and checked for water tightness after construction.
- Implementing Anti-termite treatment / Waterproofing / Insulation works. The contractor shall submit a warranty certificate for the same in the approved format.
- Plantation and Landscaping works. The landscaping work shall have a defect liability period of 12 months.
- Preparation and Submission of As-Built drawings for Civil and Structural Works.
- Issuing Warranty certificate for Anti-termite treatment / Waterproofing / Insulation works.  
The warranty shall be a minimum for 10 years.
- Maintaining safety requirements and relevant Government Regulations and ensure their implementation.
- Safety reporting: Brief reports of all accidents and hazardous incidents including descriptions of causes, extent of injuries, action taken, and precautions instituted to prevent repetition of such events.
- **Guarantee for construction defect/ manufacturing defects during defect liability period:**  
Contractor shall guarantee the entire work for period of minimum 60 months after completion of work. Any damage or defect that may arise or that may remain undiscovered at the time of issue of completion certificate connected in any way with the equipment or materials supplied by him or in the workmanship be rectified or replaced by contractor at his own expense as desired by engineer-in-charge or in default may cause the same to be made good by other agency and deduct expenses there of ( for which the certificate of engineer-in-charge shall be final) from any sums that may then or any time thereafter become due to contractor or of sale thereof or a sufficient portion thereof. The contractors shall be liable to construction defect/ manufacturing defects and not liable to damage caused by occupants if any.
- The Contractor shall institute a Quality Assurance and Quality Control (QA/QC) system in accordance with the requirements to demonstrate compliance with the requirements of the Contract. The Contractor shall submit, within 14 days of signing of the Contract Agreement, the required Quality Assurance and Quality Control (QA/QC) Program for approval by the Employer's Representative. The Employer's Representative will either approve the submittal or provide comments thereon to the Contractor within 14 days of submission by the Contractor. The Employer's Representative's, approval, disapproval, comments, or failure to provide any of these to the Contractor, shall in no way relieve the Contractor of any of its obligations or responsibilities

under the Contract. The Contractor, prior to commencement of work at the Site, shall set up his own laboratory, with prior notification to the Employer's Representative. The calibration of the laboratory equipment and instruments shall be certified by agencies approved by the Employer's Representative. Laboratory equipment shall be properly maintained and calibrated throughout the period of the Contract by the Contractor at his own expense. The Contractor shall give the Employer's Representative reasonable advance notice prior to conducting any tests required by the Bid Documents, which the Employer's Representative may choose to witness at his discretion. The Employer's Representative will also inspect the laboratory if deemed necessary and the Contractor shall provide adequate facilities to the Employer's Representative that may be necessary for witnessing testing or for independent verification of the accuracy and adequacy of the facilities and equipment. Compliance with the QA/QC system shall not relieve the Contractor of any of his duties, obligations, or responsibilities under the Contract. Contractor shall maintain Quality Control records. QA/QC records till the completion of Defect liability Period shall be maintained.

- Weekly/Fortnightly/Monthly Progress Reports, along with photographs depicting the progress achieved in the month, shall be prepared by the Contractor in a format approved by the Employer's Representative and the Employer and submitted to the Employer's Representative. Contractor shall submit Weekly/Fortnightly/Monthly Progress Reports in review meetings for Project Progress and approval.

**Other Materials:**

- i. Glazing of windows: Glazing shall be as specified, complying with codal safety provisions and the wind speeds.
- ii. Staircase railing: Stainless steel railing.
- iii. Expansion Joint: As per requirement.
- iv. Plinth Protection: Unpolished granite stone in continuation to external wall finishing over CC plinth protection edge with CC Kerb stone.
- v. Sunken portion: Toilets shall be done with core cutting arrangement to required depression of 100 mm as decided by the Engineer and the same to be filled with M15 after waterproofing treatment.
- vi. Signs and outdoor display structures shall be governed by the relevant provisions of the Orissa Municipal Corporation Act/ Orissa Municipal Act and any other codal provision.
- vii. Debris, rubbish & other waste materials shall be reused at site as directed by Engineer or disposed off/ recycled or on pre-defined disposal locations.
- viii. Landscaping must be planned suitable to the theme and architecture of the building used along with public space creation and design.

## **1. SCOPE FOR WS & SI WORK:**

Scope of work shall comprise specifications to be followed for the works, have been provided in Section-5, and in addition, manufacture's specifications shall also be adhered to for the brands approved for the project. Scope includes designing and producing PH drawings for approval and construction for the project. Scope also includes O & M of all the electromechanical items (for STP, WTP if any) for at least five years and to produce warranty certificates for all sanitary fixtures, fittings and all other items related to PH works. All PH installations shall be tested, commissioned, and formally handed over in complete working conditions.

## **2. Scope for WS & SI Work:**

The scope of WS & SI work (Water Supply & Sanitary Installations) for the project is about providing all fittings and fixtures to make it fully functional with regard to supply, storage, distribution of water and collection and treatment of effluent from the toilets and other areas of the building.

### **For toilet areas:**

- i. W.C. Pan with flushing system:**
  - a) Floor mounted single piece seamless dual flushing EWC (rimless, anti-bacterial glazing, siphonic with tornado flushing system) with soft closing UF seat cover, S trap, Two-way bib cock with button type health faucet to be provided for each WC in attached toilets.
  - b) Floor mounted square type white colour EWC with 'S' trap soft closing Seat Cover with 10 Ltr. Capacity Low level PVC Flushing Cistern Single flush and 32mm PVC flush bend, Two-way bib cock with button type health faucet to be provided for each WC in Common toilets.
  - c) Water Closet, Squatting Pan (Indian type WC Pan/Orissa Pan) with 10 Ltr. Capacity Low level PVC Flushing Cistern Single flush and 32mm PVC flush bend, Two-way bib cock with to be provided for each WC.
- ii. Urinals:**
  - a) Standing Urinals shall be back inlet type, auto closing concealed urinal flush valve arrangement with HPL urinal partition of size at least 1195mm(H) x 450mm(D)x12mm(T).
  - b) Squatting urinal, auto closing concealed urinal flush valve arrangement with HPL urinal partition of size at least 1195mm(H) x 450mm(D)x12mm(T).
- iii. Wash basin:**
  - a) Under counter wash basin Oval Shap, pillar cock auto closing system, CP angle cock and 32mm PVC waste pipe with granite top. Horizontal continuous rectangular Mirrors with length as per basin counter length and width not less than 600mm to be provided in washroom areas.
  - b) Wall Hung Basin with full pedestal, pillar cock/ pillar cock auto closing system, CP Angle cock and 32mm PVC waste pipe. Rectangular Mirror with length as per basin counter length and width not less than 600mm to be provided.

- iv. **Kitchen sink** of SS 304 material of adequate size to be used in desired locations. Sink cock with regular swinging spout (wall mounted model) to be provided.
- v. **Accessible Toilet Fixtures** – Accessible European Water Closet with flushing cistern and seat cover, wall-mounted wash hand basin, pillar cock with extended liver handle, hinged support rails, and grab bars, all designed to provide safe, comfortable, and easy use for differently abled users.
- vi. **Water Purifier** – Storage type UV/RO water purifier of approved make and capacity as per site requirements, complete with mounting accessories, filtration system, electrical connections, and all necessary fittings for safe drinking water supply.
- vii. **Overhead Tank:** For overhead water tank Rotational moulded polyethylene double layer cylindrical vertical water tank storage of required capacity conforming to IS : 12701--1996 including cutting holes through the tank and fixing PVC tubes and fittings and providing extra sockets and jam nuts, fixing ball valve etc, including hoisting upto a height of 5 metres above ground level and placing the tank to the required position etc all complete as per specification .
- viii. All accessories for Sanitary fixtures (CP finish) and fittings to be provided such as health faucet, toilet paper roll holder, two-way bib cock, Pillar cock, towel ring round, mirror, soap holder, robe hook, bottle trap, floor drain, sink cock, angular stop cock, long body bib cock, concealed stopcock, square multi floor trap with SS anti cockroach grating, waste coupling, extension piece, hand dryer ,Exhaust Fan etc.

Note: The contractor/agency shall submit Technical Data Sheets (TDS) for all sanitary fixtures and fittings for approval prior to installation in the project area. The submission shall clearly indicate the area of application and intended usage of each plumbing and sanitary (PH) item, along with the relevant design calculations and supporting technical details.

The Agency shall install two mock-up toilets (considering at least two brands) for approval by the Authority prior to proceeding with the full installation across all floors.

#### **I. Sewerage (soil and waste) & Storm water System:**

- i. The scope includes planning, designing and construction of providing and laying sewer lines with RCC NP2/NP3 pipes (as per codal requirements) pipes including Manholes of required size, shape, and depth complete and as per direction of Engineer-in-charge. The agency must plan, design, prepare the drawings for Sewerage system and get the same approved from Engineer before execution the competent authority. The sewerage lines of individual building shall be considered in buildings up to and including first manhole.
- ii. Waste & wastewater from kitchen & dining (if any) shall not be directly discharged in the sewerage system. For garbage, a separate storage bin shall be provided and all codal provisions of SWD should be followed. For pre-treatment of wastewater Gully Trap, screen chamber, Grit Chamber shall be designed and constructed. Kitchen shall be drained with separate floor trap.
- iii. All internal sewage & rainwater pipeline to be of UPVC type B material with fittings with hanger provision at basement level and vent pipe shall be type-A as per **IS 4985/13592**.
- iv. The size of pipes and slopes shall be designed and executed strictly in accordance with the provisions of NBCS-2026.
- v. “A two-pipe system with independent vents” shall be provided in accordance with NBCS-2026,

with separate piping networks for sewage (soil water) and sullage (wastewater) collection and conveyance.

- vi. uPVC SWR Type-B self-fit pipes and fittings with solvent cement joints shall be used for internal toilet plumbing, while O-ring type pipes and fittings shall be used in plumbing ducts, attached balconies, and terraces, and the system shall be designed to maintain a minimum self-cleansing velocity of 0.75 m/s.
- vii. HDPE pipes shall be used as per system requirements and shall conform to relevant IS standards. Pipes and fittings shall be of approved make, suitable for the specified pressure rating, and installed using proper jointing methods to ensure leak-proof and durable performance.
- viii. External sewage is operated from the first manhole to the Septic Tank including construction of gully trap, inspection chamber etc, making connection from and to the manholes wherever required, all complete.
- ix. Manholes, inspection chambers, and gully traps shall be provided in accordance with NBCS-2026, complete with structural detailing and approved drawings. RCC NP-2/NP-3 pipes shall be selected based on load conditions and relevant IS standards, and detailed shop drawings shall be submitted for approval prior to execution.
- x. The first inspection chamber shall be provided with a vent pipe for proper ventilation.
- xi. The last manhole chamber shall be provided with a vent pipe for proper ventilation.
- xii. PVC (SWR and rigid) soil, waste, and vent pipes, vent cowls and fittings made of UPVC shall conform to IS 4985/13592, BS, and DIN standards with specified diameters, wall thickness, and rubber ring joints, including proper jointing, fixing, anti-siphonage piping, trap water seals, and water closet installation.
- xiii. Clean Out Plug (COP) – Clean-out plugs shall be provided at the base of soil, waste, and vent stacks and at required locations along drainage pipelines to facilitate inspection, cleaning, and maintenance of the system.
- xiv. Floor Trap with Channel Grating – Stainless steel floor drain with removable grating for efficient drainage of wastewater and easy cleaning.
- xv. Pipes shall be supported with clips at prescribed spacing as per NBC -2016 measured along the centreline including fittings, and hydraulically pressure-tested prior to commissioning to ensure leak-free performance.

## **II. SEPTIC TANK:**

- I. The agency must prepare septic tank design calculation sheet as a form of DBR for approval. RCC Septic Tank and Soak Pit are to be proposed as per NBCS-2026 / latest CPHEEO manual and latest IS:2470(Part-1) 1985. The minimum capacity of the Septic Tank shall not be less than 200 users Capacity but however detailed design to decide exact Capacity and size shall be furnished to get approval prior to execution. As per site condition if required two nos. different size Septic Tank shall be provided in suitable location with individual Soak pit.
- II. External periphery drains with perforated or slotted medium or heavy duty RCC cover slab (as per required) to be planned and final disposal point to be planned wherever suitable level matches with the existing drain with proper filtration like sand trap/catch basin/desilting chamber.
- III. Rainwater Recharge pit: A rainwater recharge pit plan has to be designed for recharging ground water table by considering run off calculation. Rainwater recharge pit system has

- to be planned for roof top areas and external areas as per NBCS-2026 with necessary desilting chamber before discharging to recharge pit.
- IV. uPVC drainpipes shall be provided in accordance with IS 4985/13592, with Class A pipes used for vent pipes and Class B pipes used for soil, waste, and rainwater pipes.
  - V. All rainwater and wastewater systems shall be coordinated with architectural and structural layouts to avoid conflicts and ensure maintenance access, while floor traps, floor drains, cleanouts, cross vents, and vent pipes extending at least 1.2 m above roof level shall be provided as required.
  - VI. Roof drains shall be provided to effectively collect and discharge rainwater from terrace and roof areas. The drainage system shall be designed with adequate slope, rainwater down-take pipes, leaf guards, and proper connection to the rainwater drainage network to prevent water stagnation and seepage.
  - VII. Proper grading plan to be designed with gradation plan with proper slope for which storm water can be drained out properly and required nos. of Box drains / Catchpits / Sand traps shall be provided as per design /statutory norms and respective drawings shall be submitted and need to take final approval from Engineer in chief.

### **III. Water Supply Network & Other Plumbing services:**

- i. The scope includes planning, designing, construction & testing commissioning of providing and laying Water supply main, branch and distribution lines including chambers and fittings/specials and as per direction of Engineer.
- ii. Supply and installation of pipe support including clamps, hangers, brackets, saddles, anchor fasteners, and necessary fixing accessories of approved make and material, suitable for supporting hot and cold-water piping systems. The scope shall include proper alignment, spacing, and secure fixing of pipes on walls, ceilings, or structural members to ensure safe load distribution, vibration control, and long-term stability of the piping system as per site requirements and engineering standards.
- iii. The water supply network should cater to the needs of supplying water from UG sump to building OHTs.
- iv. Primary source of water supply will be Government Public Water Supply. However additional source of water supply is bore well (Production Well) to be planned keeping total water requirement for the project. Contractor shall assess the quality of water and accordingly has to plan and design for the treatment facility (Unit) for the same. The building is to be connected with OHT by water supply lines by UPVC sch 80 pipes along with UPVC fittings, excavation, providing sand around and refilling after laying etc. Internal water supply of building has been made with CPVC SDR 11 pipes along with all necessary tees, elbow, couplers, unions, brass elbow, brass tee, MTA, FTA, etc. The selected SDR (Standard Dimension Ratio) shall be suitable for the intended application, operating pressure, and service conditions. All pipes shall conform to relevant standards and shall be installed with compatible fittings, joints, and supports to ensure leak-proof and reliable performance. The Internal water supply in toilets shall be provided through concealed piping routed via plumbing shafts with no exposed services.
- v. External water supply such as from UGR to OHT and from external borewell or Government Public water supply to UGR pipe will be considered UPVC sch 80 pipes along with all necessary forged brass ball valves, butterfly valves (above 50mm dia), strainer, PRV (diaphragm type), ARV, etc complete.

- vi. Planning and design of RCC Underground Storage Tanks (UGR) for raw & domestic water shall be carried out in accordance with NBCS-2026. An adequately sized pump room with proper access, rolling shutter, and ventilation window shall be provided. The UGR capacity shall be designed for 1.5 days of total daily water demand, and the OHT capacity shall be designed for 0.5 days of total daily water demand. The installation shall be designed to deliver consistent and smooth pressure at the point of use.
- vii. Drainage system for disposal of Sludge and Wastewater from Water treatment Unity is to be provided.
- viii. Overhead tank filling surface pump of suitable configuration having standby facility with calculated head and discharge for filling tank has to be considered while selecting the pump with automated filling control panel system and pressure vessel and dry pump run prevention to be provided.
- ix. Water treatment plant (Unity) has to be planned as per water test report having adequate treatment capacity not more than 10 hours of operation with necessary filtration but not limited to ACF, MMF, Softener, UV etc as per requirement to fulfil the drinking standard.
- x. Two nos. of Storage Cooler cum UV Water Purifier 120 lit Capacity having 80 lit per hr cooling capacity, 120 lit storages shall be provided in suitable location.
- xi. RCC Hume pipes has been planned in between road crossing wherever water supply pipes cross both internal and external roads.

**GENERAL INSTRUCTIONS BEFORE EXECUTION OF WORK:**

- **Execution: All works shall be executed strictly in accordance with the approved design drawings, and testing, commissioning, and inspection shall be carried out as per the specified design requirements.**
- **All MEP services riser shafts shall be designed to provide adequate space for maintenance, inspection, testing, and commissioning of services**
- **MEP services shall remain exposed. The design shall ensure adequate slopes and drainage provisions for service lines to prevent water accumulation and ensure proper discharge.**

**IV. Garbage Disposal/Waste management:**

The building has to be provided with adequate at least 20 numbers of dustbins to segregate wet waste, dry waste, at centralised location.

**Reference Standards:(Latest revision /amendments to be followed)**

NBCS-2026	National Building code of India
SP 35	Handbook on water supply and Drainage
IS 5329 – 1983	Code of practice for sanitary pipe work above ground for buildings.
IS 2064 – 1973	Code of practice for selection, installation and maintenance of sanitary appliances.
IS 1200 (Part 1)	Method of measurement of building earthwork
IS 1200 (Part 16)	Method of measurement of laying of water and sewer lines including appurtenant

IS 1200 (Part 19)	Method of measurement of Water supply, plumbing and drains.
IS 783 – 1959	Code of practice for laying of concrete pipes
IS 13592 – 1992	Specification for un plasticized PVC pipes for soil and waste discharge system inside building including ventilation and rainwater.
IS 2527 – 1984	Code of practice for fixing rainwater gutters and down pipes for roof drainage.
IS 6784 – 1984	Method of performance testing of water meters (Domestic type).
IS 12235 (Parts 1 to 11)	Methods of test for un plasticized PVC pipes
IS 458 – 1988	Specification for pre-cast concrete pipes (with or without reinforcement)
IS 771 – (Part 3 to 6)	Specific requirements for urinals
IS 2548 (Part 1 & 2)	Specification for plastic seats and covers for water closets.
IS 3004 – 1979	Specification for plug cocks for water supply purposes.
IS 1711 – 1984	Specification for self-closing taps for water supply
IS 1703 – 1977	Specification for ball valves (Horizontal plunger type) including floats for water supply purposes.
IS 4038 – 1979	Specification for foot valves for water works purposes.
IS 1172 – 1983	Code of basic requirements for water supply, drainage & sanitation
IS 1239 – 1990 (Part I)	Specifications for mild steel tube, tubular and other steel pipe fittings.
IS 1239 – 1992 (Part II)	Specifications for mild steel tube, tubular and other steel pipe fittings.
IS 1742 – 1983	Code of practice for building drainage.
IS 2064 – 1973	Code of practice for selection, installation and maintenance of sanitary appliances.
IS 2065 – 1983	Code of practice for water supply to buildings.
IS 4111 – 1986	Code of practice for Ancillary structures in sewerage system
BS 4515	Specification for un plasticized PVC pipe fittings.
IS 4985 – 1988	Specification for un plasticized PVC pipes
IS 732 & IS 2274 – 1963	Indian Standard code of practice for electrical wiring & installation.
IS 15778	(CPVC) Pipes for Potable Hot & Cold water
CPHEEO MANUAL-2019	

## 1.6 ELECTRICAL WORKS

- 1) Scope of work for electrical system is complete provide the electrical power supply for the entire facility & designed to ensure both normal and emergency power availability, ensuring uninterrupted operations for critical systems.
- 2) Entire Internal electrification considered for the Ground Floor.
- 3) At building Core Area, corridor lighting & tap off facility for offices area including electrical & ELV should be consider in this scope.

### 4) General:

The electrical system is designed considering latest technologies, quality, aesthetics energy efficiency and economy.

### 5) Reference Codes & Standards

The following standards and codes shall be followed/ referred during detailed design of the services:

- Local Bye – Laws
- National Building Construction Standard of India – 2026
- Energy Conservation Building Codes 2017
- Relevant Codes of National Fire Codes 2016
- Relevant Codes of Bureau of Indian Standards.
- Institute of Electrical & Electronic Engineers (Design Hand Book)
- Illuminating Engineering Society of North America (Design Hand Book)
- BS 7671 Requirements for Electrical installation
- NEC – NFPA 70, National Electric Code
- NEC, National Electric Code of India
- OERC Rules & Regulations

### 6) Objectives

The following systems shall be provided as part of the Electrical works;

- a) External Electrical Work (Including Power supply from DISCOM to the building , Cabling, rising main, External Lighting, , LA system, Earthing etc.)
- b) Internal Electrical works. (Ground floor)
- c) Extra Low Voltage Work (Including, Data Networking & IPBX System for Services)
- d) The objective of the Design Basis Report is to briefly describe the salient features of Electrical System and Low Voltage Systems taken into consideration; Various electrical facilities for the project that have been envisaged considering the usage of areas, pattern of electrical loads, relevant Indian Standards/Codes and good engineering practice.
- e) The project objective includes the following.
  - i. To meet the all-statuary regulations
  - ii. Ensure system to meet the environmental health and safety standards.
  - iii. Reduce the utility space requirements by doing centralized locations of services installations.
  - iv. Reduce the load or the duty for the system.
  - v. Reduce the operation & maintenance cost
  - vi. Maximize the usage of sustainability principles.
  - vii. Implement lean principles / avoid excess or redundant system build-ups.
  - viii. Better Lighting, convenient power and communication capability. Safe and energy sustaining operation of buildings.
  - ix. Most efficient and reliable Electrical distribution system.
  - x. Minimize the Interruption and reduction in overall system losses.
  - xi. Selection of utility systems / equipment with best possible operating efficiency.
  - xii. Safety of persons and equipment and maintenance of these requirements throughout the life of the installation.

- xiii. Establish cabling network designs to ensure that:
- xiv. Minimize voltage drops at all points.
- xv. Minimize energy conservation by implementing energy efficiency systems
- xvi. Safety of the systems through Earthing.

### 7) Design Basis

The design shall be done on the guidelines of NBCS 2026 and the applicable local codes and standards, illustratively listed below as per the project requirements and site conditions.

Sr. no	Standards	Code Description
A	Ring Main Unit (RMU) / High voltage Switchgear (HVS)	
1	IS: 13118, IEC: 56	Circuit Breakers
2	IS:3427, IEC:298, IEC:694	Metal enclosed Switchgear
3	IS: 2705 IEC: 44	Current Transformers
4	IS: 3156 IEC: 186	Potential Transformers
5	IS: 5578, IS: 11353	Guide for Marking Busbars, Main Connection and auxiliary wiring
6	IS: 2544, IEC: 273	Busbar support insulators
7	IS:13947, IS:3427, IEC: 947	Degree of Protection
8	IS: 3231, IEC: 255	Electrical relays for Power System Protection
9	IS: 1248, IEC: 51	Electrical Indicating Instruments
10	IS: 9385, IEC: 282	High Voltage Fuses
11	IS: 722	AC Electricity Meters
12	IS: 4171, IEC: 694	Copper Busbars
13	IEC: 129	Off load isolators
14	IS: 6005	IS: 4171, IEC: 694
15	IS: 9224	HRC Fuses
B	Transformer	
1	IS 2026 Part I IV	Power transformer
2	IS 3639	Fittings & accessories
3	IS 2147	Degree of protection
4	IS 2026	Tests
5	IS 2026	Tolerance on guaranteed particulars
6	IS 1271	Electrical insulation classified by Thermal stability
7	IS 335	Insulating oil
8	IS 8468	OLTC
9	IS 10028 Part II	Installation and maintenance of transformer
10	IS 6600	Guide for loading of oil immersed Transformer
C	Low Voltage Switchgear (LVS)	
1	IEC 60439/IEC61439	MV Switch Board
2	IS 4237, IEC 947	Switchgear General Requirements
3	IS 13118, IEC 56	AC Circuit Breakers
4	IS 8623, IEC 439	Factory built assemblies of switchgear and control gear for voltages upto and including 1000V AC and 1200V DC
5	IS 13947(Part3), IEC 947-3	Air brake switches
6	IS 8828, IEC 898	Miniature circuit breakers

Sr. no	Standards	Code Description
7	IS 9224, IEC-269	HRC cartridge fuses
8	IS 8187	D Type fuses
9	IS 13947(Part4), IEC 947	Contactors
10	IS 13947(Part 4), IEC 947	Starters
11	IS 6875	Control switches / push buttons
12	IS 2705, IEC 44-1	Current transformers
13	IS 3156, IEC 186	Voltage transformers
14	IS 3231, IEC 255	Relays
15	IS 1248, IEC 51	Indicating instruments
16	IS 11353 / IS 5578	Arrangement for busbars main connections and accessories
17	IS 722	AC electricity meters
18	IS13947(Part1), IEC947-1	Degree of protection
19	IS 10118	Code of practice for installation and maintenance of switchgear
20	IS 6005	Code of practice for phosphating iron and steel
21	IS 5082, IEC 114	Wrought Aluminium & Aluminium alloys for electrical purposes
22	IS 12021, IEC947	Control transformer for switchgear and control gear for voltage not exceeding 1000V AC
D	Lighting	
1	IS 1913 (Pt 1): 1978	General and safety requirements for luminaries: Part-1 Tubular fluorescent Lamps (Second revision).
2	IS 2206 (Pt.1): 1984	Flameproof electric lighting fittings: Part-1 Well-glass and bulkhead types (first revision).
3	IS 3528: 1966	Waterproof electric lighting fittings
4	IS 5077: 1969	Decorative lighting outfits
5	IS 9583: 1981	Emergency lighting units.
6	IS 10322 (Pt.4): 1984	Luminaries: Part-4 Methods of tests
7	IS 10322 (Pt.5/Sec2): 1985	Luminaries: Part-5 Particular requirements, Section-2 Recessed luminaries.
8	IS 2418	Tubular fluorescent lamps
9	IS 1777: 1978	Industrial Luminaire with metal reflectors and its Amendments
10	IS 4012: 1967	Dust-proof electric lighting fittings.
11	IS 4347: 1967	Code of practice for hospital lighting
E	Cables	
1	IS: 7098-Part-1 1998, IEC:502 1983	11KV Cables
2	IS:1554 - Part - I (1988)	433 V Cables
F	UPS	
1	IS 589	Basic climatic & mechanical durability tests for Components for electronic and electrical equipment
2	IS 9000	Environmental tests for electronic & Electrical equipment
3	IS 5921	Metal clad base material for printed circuits for use in electronic and telecommunication equipment.

Sr. no	Standards	Code Description
4	IS 6297	Transformer and inductors (power, audio, pulse & switching) for electronic equipment
5	IS 7405	Printed wiring boards
6	IS 6553	Environmental requirements for semiconductor Devices & integrated circuits
7	IS 4007	Terminals for electronic equipment
8	IS 8623	Factory built assemblies of switchgear and control gear for voltages up to and including 1000V AC and 1200V DC
9	IS 13947-3	Air brake switches
10	IS 9224	HRC Cartridge fuses
11	IS13947-4	Contactors
12	IS 6875	Control switches / push buttons
13	IS1248	Indicating instruments
14	IS 2147	Degree of protection
15	IEC 146	Semiconductor converters
16	IS 6619	Semiconductor rectifier equipment code
17	IS 3700	Thyristors converters
18	IEEE 446	Emergency power systems
19	IEEE 472	Surge withstand capability test
G	EARTHING	
1	IS 3043	Earthing
2	IS 9078: 2002	Earthing of Electrical Systems - Power Stations and Substations:
H	LIGHTNING ARRESTER	
	IS/IEC 62305 (Part 1-4)	Protection Against Lightning (International Standard Adaptation)
	IS 15783: 2008	Installation of Lightning Protection Systems in Buildings
	IS 8080: 1984	Code of Practice for the Installation of Low Voltage Surge Protection Devices (SPDs)
	IS 2309: 1989	Protection of buildings and structures against lightning.
I	SOLAR SYSTEM	
	IS 14286: 2010	Photovoltaic (PV) Modules
	IS 16157 (Part 1): 2012	Requirement of Solar Photovoltaic (PV) Systems
	IS 11790: 2014	Solar Thermal Systems
	IS 12933: 2017	Solar Water Heating Systems
	IS 15801: 2008	Specification for Solar Power Generating Systems
	IS 13503: 2017	Battery for Solar Power Applications
	IS 16129: 2014	Grid Connected Solar Photovoltaic (PV) Systems

### 8) Design Inputs

The Electrical DBR have been made on the guidelines RFP documents and the applicable codes and standards, illustratively listed as per the project requirements and site conditions. However, if operating agency requested for some additional requirements, features which is not available in the RFP document. The same has been incorporated with cost implication, if it is approved and administrative sanctions given, then further design process would be done accordingly.

System Proposed: -

The scope of work includes complete design, engineering with necessary design calculations, fit – up details, supporting details for the following electrical items.

- i. HVAC System (Computer Lab and Administrative office)
- ii. UPS for ELV system, Office & Headmaster
- iii. LT Panel Boards & Sub-Panel Boards.
- iv. Cable end terminations
- v. MCB Distribution Boards
- vi. Lighting and Power wiring
- vii. LED Light fittings
- viii. Modular type power receptacles
- ix. Earthing system as per IS 3043
- x. External Bollard Lighting for the Building (main gate).
- xi. On Grid Solar (Roof on Solar)
- xii. Data Networking.

### **9) Main LT Panel**

Proposed Main LT panel should be compiling the IEC standard 61439-1&2 TTA panel. for All Sub Distribution panels & Sub Panels CPRI Certified IEC-60439-1 (IS-8623) & IEC-60439-2..

Main LT panel shall be located at Upper Basement service area near the transformer & connected through XPLE cable from transformer & DG. All the outgoings will be through XPLE cable to each Sub-distribution panel, Rising Mains & Service panels.

The connection from Main LT Panel to Building Distribution Panel shall be connected through Cabling system.

The proposed fault level of ACB's and MCCB's of Main LT panel & other panel within the substation building is 50KA.

All Switchgear and associated components, fed from transformer/generators shall have rating at least equal to 110% of the rating of respective transformer/generator feeding the same, under any circuit configuration.

Forced air cooled circuit breaker are not acceptable. Circuit breaker shall be de-rated for design ambient temp. and in-panel installation. Nominal rating of circuit breaker shall be selected accordingly.

All other switchgears those are not directly fed from transformer/generator shall have rating at least equal to the maximum demand under any circuit configuration plus a provision for 20% future load growth. Maximum demand shall be calculated similar to the distribution transformer sizing calculation. Spare outgoing feeders shall be provided in all switchgears shall be furnished with approximately 15% spare breaker & 20% future spaces.

Logic and safety interlocks shall be hard wired and shall be provided as required.

Auto/Manual changeover schemes shall be hard wired. For typical scheme refer switchgear specification.

PCC shall be provided with Auto/Manual/Independent Mode. Circuit breaker shall be of four pole type for incomers and bus coupler in 415V PCC & MCC including circuit breakers for generator incomer and associated bus coupler.

### **10) Sub Distribution Panel**

Supply, installation, testing & commissioning of fully assembled and pre type-tested all Sub Distribution panels & Sub Panels CPRI Certified IEC-60439-1 (IS-8623) & IEC-60439-2..

Providing Main incomer (MCB/MCCB) and outgoing MCBs with proper rating as per SLD and specification.

Providing Al/CU Busbars, neutral and earth bars, and necessary internal wiring as per specification of sub distribution panel.

Provide Protection devices including surge protection if specified. Panel enclosure rated for indoor/outdoor use (e.g., IP54/IP65).

Following are the Sub-Distribution panels, which are required to supply the power for internal building lighting, power & VRF System. Also addition with Utility distribution panels like :-

For Building

Sub Distribution panel at each floor electrical room having separate Lighting Sub Panel, UPS Sub At each ground floor electrical room space planning shall be considered with provision of Sub-distribution panel & ELV distribution rack.

Sub distribution panel shall be provided at each floor for lighting, power & emergency power distribution. Ground to Terrace area shall be considered with outgoing up-to end point including workstation distribution board.

All the sub distribution panels have been connected to respective lighting & power rising main.

For Emergency power supply separate Emergency main panel shall be provided near the UPS location & further distributed from Ground & Terrace Area with separate Emergency sub panel at each floor with emergency rising main.

### **11) Internal Electrification & Power Distribution: -**

Lighting System:

General: -

All proposed indoor & outdoor Light fixtures are LED type lighting fixture. Lighting fixtures and accessories shall be considered for continuous trouble-free operation under diverse atmospheric conditions without deterioration of materials. Degree of protection of enclosure shall be IP-65 for outdoor fixtures. All internal lighting fixtures shall be IP20.

All the light fitting in the building shall be energy saving types.

Illumination levels of different areas in compliance with NBC 2026. However as per the client requirements, light fixtures have been proposed based on the client / architect requirements.

Selection of light fixtures matching the architecture within the building and outside of the building.

Luminous Efficacy is considered as 120 Lumen.

Automatic Timer Control shall be provided for External light fittings.

Occupancy sensor shall be provided in basement lighting for 50% lighting & the lights will get switched off automatically if area is unoccupied for more than 3 to 5 Minutes.

Maintenance factor & Utilization factor shall consider based on below area lighting .

lighting fixtures will be selected based guidance of the stakeholders, and any addition/deletion of lighting provisions shall be identified upon approval of DBR for financial analysis.

### **12) Indoor Lighting: -**

Following is the Lighting Lux requirement for each area is selected based on CPWD, NBCS 2026.

- a. Office and Shops areas 300-500 lux, glare below 17, CRI above 80.
- b. AV room, areas 100-200 lux, glare below 17, CRI above 80.
- c. Corridor and lobbies areas 150-200 lux, glare below 17, CRI above 80.

Types of Indoor Lighting:

Following types of indoor lighting fixtures for using internal lighting of the building: -

- a) Down Light
- b) Linear surface Tube Light
- c) Wall Light.

### **13) Internal Electrical Work: -**

Proposed Internal electrical works for (Godabarshi Mishra Adarsha Prathamik Vidyalaya) complete supply, installation, testing & commissioning of internal wiring, providing lighting fixture, conduit with all required accessories for Ground floor & Terrace area.

The items/activities covered under internal electrical works shall include the following:

Providing Sub Distribution Boards at ground floor & MCB DB's (Like PDBs & LDBs etc).  
Cables from Main Panel Boards to Sub Distribution Boards. Sub main Wiring from Main/Sub Distribution Boards to various final Distribution Boards. Power wiring for Equipment etc. complete in all respects.

Point wiring of all lights points. Ceiling fan points, exhaust fan points, light Plug points, general power points, metal clad plug & socket outlet points etc., including supply and fixing of light and power accessories etc. complete in all respects as per above-described location from Ground Floor to Terrace Area.

All the internal electrical wiring shall be done through heavy duty FRLS PVC conduit for concealed area, fall ceiling area & electrical metallic tubing (EMT) conduit for open area.

Light fixtures, ceiling fans, exhaust fans.

Provision for telephone system consisting of conduit and cabling from telephone distribution board up to each outlet including main & sub tag blocks, telephone outlets incoming PVC/MS conduit pipe etc. complete in all respect.

Earthing of electrical installation complete in all respects.

Scope of work shall include supply installation, testing and commissioning of complete electrical installation as described above.

Internal cabling from Substation to various blocks/panels.

Separate LDB, PDB & UPSDB shall be provided for Lighting & Power. All DB's shall be phase segregated type DBs with MCB & RCCB as incomer & MCBs as Outgoings. 30mA setting for lighting DBs & 100mA setting for Power DBs shall be provided.

All the internal wiring of DBs shall be properly dressed & provided with proper size lugs, ferrules & coloured wire for easily identify.

All MCB shall be "C" Curve type for lighting & power with indicative flap.

For complete details of each internal electrical items shall referred the technical specification.

#### Distribution Board

supply, installation, termination, testing, and commissioning of the Distribution Board (DB) for the internal wiring for lighting, power & emergency light & power.

Supply factory-assembled, type-tested distribution boards in accordance with relevant standards (IEC 61439 or BS EN 60439)

Distribution board shall include:

Main Incomer (MCB/MCCB/RCB/RCBO)

Outgoing miniature circuit breakers (MCBs)

2 Nos Neutral and Earth bars separate in each DB

Copper busbars with appropriate current rating

Phase indicators, interlocks, and nameplates

Enclosure with IP rating suitable for site conditions (e.g., IP44/IP65)

#### **14) LT Power Cable & Control Cable**

LT power cable shall be of 1.1kV (E) grade, stranded aluminium conductor with FRLS, XLPE insulated conforming to IS: 7098 Part-I (as amended up to date). The outer sheath shall have FRLS properties.

For multi-core cables the inner sheath and outer sheath shall be of extruded PVC of Type ST-2 of IS: 5831. Armouring for single core cables shall be aluminium strips/wires and for multi-core cables galvanized steel strips/ wires.

Maximum operating temperature under normal condition for XLPE insulation cables will be 90°C and 250°C under short circuit condition.

Cables less than 10 sq.mm shall be of copper conductor.

Control cables will be 1100V (E) grade, multi-core with stranded 2.5 mm<sup>2</sup> and copper conductor with FRLS, PVC insulated, extruded PVC inner sheath, and extruded sheath of PVC (ST-1) with numbering of all cores, conforming to IS 1554 part-I/IS 5831.

#### Cable Glands and Multi cable transit (MCT) Frames

Suitable size double compression type glands are supplied for all cables. For entries into Panel Enclosures & for all outgoing cables. All cable glands and adaptors are made up of nickel-plated brass and are fitted with soft sealing nylon washer.

For Hazardous area like UPS room, control room area shall be provided with fire retardant type cable gland.

Cable Lugs shall be as per cable conductor type & providing bi-metallic lugs where conductor shall be different.

Cable transit frames are to be fitted where cables pass from outdoor trays / trenches to indoor areas or vice-versa.

Such cable transit frames are designed to include 25 % spare capacity for future use. Cable transit frames are to be supplied with test certificates from an accredited independent test authority to confirm adequate fire rating for areas where they are to be installed.

#### **15) Lightning Protection System (LPA):**

The Lightning Protection System may be provided for the building.

#### **16) UPS:**

Proposed UPS shall be provided for critical load like emergency lighting, critical ELV loads & Critical automation loads.

Dedicated UPS for Emergency Load, ELV system & automation loads as well as AV system load.

Proposed a dedicated tentative 5KVA 30 Min backup conventional online UPS including batteries considered for Computer Lab & 3KVA for Headmaster room Emergency lighting from Ground.

Proposed a tentative separate 3 kVA 30 Min backup online UPS including batteries for the ELV loads & AV system.

Battery with 30 Min Back Up on 90 % Running load along MS Battery Rack & Battery interconnection link with CB and other standard accessories with PRS. (Parallel redundant system).

#### **17) Solar Photovoltaic Power System:**

Proposed Roof Top Solar may be provided of minimum 5% of total connecting load for the project as per ECBC/NBC2016/ODA Guideline. The generated power will be directly connected to the Power grid/ Distribution Panel of respective Building/ Block for load sharing during daytime.

As per the above load requirement the solar panel can be installed at Building Rooftop area. If the clear area is not available on roof top, bifacial solar arrangement can be provided for solar system.

Electrical Make List:

ITEM DESCRIPTION	MAKES
PVC CONDUIT PIPE	AKG/ PRECISION/ NEROPACK/BEC
M.S. CONDUIT PIPE	AKG/ PRECISION/ NEROPACK/BEC
WIRE	KEI/ POLYCAB / HAVELLS/ GLOSTER
HT CABLE & LT CABLE	KEI/ POLYCAB / HAVELLS/RR KABEL/GLOSTER

SWITCHES & SOCKETS	LEGRAND(MYRUS)/SCHNEIDER(Zencelo)/ SIEMENS (SINOVA MARQ)
CEILING ROSE & BRACKET HOLDER	ANCHOR/ CONA
MCCB, MCB, RCCB, RCBO	LEGRAND-DX-3/LK-DSHINE/ABB-200 SERIES/SIEMENS-BETAGUARD/SCHNEIDER- ACTI9
DISTRIBUTION BOARD	LEGRAND-EKINOX/SIEMENS-BETAGUARD/ SCHNEIDER- ACTI 9/ABB ITUS/LK EXORA.N
MAIN LT PNAEL DISTRIBUTION (TTA PANEL INCLUDING SAME MAKE OEM SWITCHGEAR & ACCESSORIES)	SCHNEIDER(BLOCKSET)/ABB(ARTUK)/ SIEMENS(SIEPAN)/LK (Ti Range)/LEGRAND XL3
SUB DISTRIBUTION PANEL INCLUDING SAME MAKE OEM SWITCHGEAR & ACCESSORIES)	SCHNEIDER(BLOCKSET)/ABB(ARTUK)/ SIEMENS(SIEPAN)/LK (Ti Range)/LEGRAND XL3
LOCAL DISTRIBUTION BOARD	BALAJI ELECTRO CONTROLS/SK ELECTRICAL/ ELECTRO CONTROLS VDEAL
VERTICAL & HORIZONTAL RISING MAIN	LEGRAND/SIEMENS/ABB/C&S
SWITCH GEARS	LEGRAND/ SIEMENS/ LK/ ABB
SELECTOR SWITCH	KAYCEE/ SALTZER
INDICATING LAMP	SIEMENS/ L&T/ ABB/ LEGRAND
ENERGY METERS	GEC/ SECURE/ LK/ <a href="#">Elmeasure</a>
CTS & PTS	AE/ KAPPA/ EASTERN SWITCHGEAR
KITKATS EXTENSION TYPE	ANCHOR/ HAVELLS/ BPC/ ABB/ PANASONIC
METAL CLAD PLUG SOCKET	LEGRAND/ HAVELLS/ L&T/ ABB
PVC INSULATED CABLES & ARMOURED CABLE	KEI/ POLYCAB / HAVELLS/RR KABEL/GLOSTER
CABLE LUGS	DOWELLS/ ISMAL/ CLIPON
CABLE JOINTING KITS	M SEAL/ GRIP-SIL
INDOOR FITTING & FIXTURES	WIPRO/ PHILIPS /LK/K-LITE
CEILING FANS & EXHAUST FANS	CROMPTON/ BAJAJ/ HAVELLS/ USHA/ ORIENT/ KHAITAN
LIGHTENING ARRESTER	ABB/ OBO/ OBLUM
EARTHING	ABB/ OBO/ OBLUM
SOLAR STREET LIGHT	WIPRO/BAJAJ/PHILIPS/PANASONIC
STREETLIGHT	BAJAJ/PHILIPS/LK/VALMONT
DECORATIVE POLE	JAGUAR/K-LITE/VALMOUNT/HOMEDECK
UPS	NUMERIC, RILLO, AVO, EMERSON
CABLE TRAY	PILCO, MEM, LEGRAND
APFC & PROTECTIVE RELAY	SCHNEIDER, SIEMENS, LK, ABB

## **TERMS OF REFERENCE AND SCOPE OF WORK FOR ELV SYSTEM**

### **1) General**

Scope includes the supply, installation, testing & commissioning of complete ELV systems such as CCTV and Data networking.

General:

The Low Voltage system is designed considering latest technologies, quality, aesthetics energy efficiency and economy.

Reference Codes & Standards

The following standards and codes shall be followed/ referred during detailed design of the low voltage services:

IEC 60364 - Electrical Installations of Buildings

IS 732: 1989 - Code of Practice for Electrical Wiring Installations

IS 1646: 1997 - Code of Practice for Fire Safety of Buildings (General)

IS 5239: 1982 - Code of Practice for Installation of Fire Detection and Alarm Systems

IS 15783: 2007 - Integrated Building Management System (IBMS)

IS 3831: 1993 - Safety of Electrical Installations – Part 1: General Requirements.

IS 5465: 2000 - Installation of Electrical and Electronic Equipment in Buildings (General Requirements)

IS 15683: 2006 - Fire Detection and Alarm Systems

IS 15885: 2008 - CCTV Systems

IS 14255: 2014 - Generic Cabling for Customer Premises

IS/IEC 11801 - Information Technology – Generic Cabling for Customer Premises.

IS 10322: 2005 - Sound Systems for Public Address

### **2) Design Basis**

The design shall be done on the guidelines of NBCS 2026 and the applicable local codes and standards, illustratively listed below as per the project requirements and site conditions.

### **3) System Proposed: -**

The scope of work includes complete design, engineering with necessary design calculations, fit – up details, supporting details for the following.

CCTV system

Data System.

### **4) CCTV Surveillance:**

- CCTV system is proposed for public areas, Main Entrance & Exit, corridor areas and external areas.
- The system will be placed in Monitoring room for easy monitoring. The system is including full high-definition Day/Night fixed IP Dome type/Bullet type/PTZ type camera, monitors, switches, Keyboard controller, Multiplexer etc. including Video recorder Provision with cable trays for CCTV cable.
- The Surveillance System components must be TCP/IP based components working on the same backbone network as the Data Network (LAN).
- Surveillance system must be scalable in terms of equipment (no. of cameras), storage capacity and licenses.
- True open platform functionality is an essential aspect of specification; cameras from different OEMs must be able to integrate seamlessly with the specified 3rd party/by same OEM VMS software platforms without any loss of features and functionality. Similarly, supplied VMS software platforms must also be able to integrate with a variety of cameras from different manufacturers in future.

- For better saving on storage and bandwidth the compression used shall be H.264 high profile for all types of cameras and devices. H.264 high profile shall be a common requirement for all cameras and devices irrespective of whether mentioned in individual sub-sections or not or if mentioned otherwise. `
- All cameras shall be vandal resistant as per IK10 rating, ONVIF profile S compliant & having wide dynamic range of 12db or more.

**5) DATA System:**

- Scope of work in data networking involves complete data networking system for labs and administrative area.
- For data system complete backbone will be fiber cable network is proposed in the building to cater for Voice and Internet services. System shall also be capable of handling IPTV requirements.
- Proposed Ethernet system will be supported but not limited to wired Ethernet and wireless as per IEEE802.11a/b/g/n/ac. IEEE 802.3af Data Terminal Equipment (DTE) Power via Media Dependent Interface (MDI). Telecom – BRI, PRI and Digital Subscriber Loop (DSL) Applications. Voice, Video and ISDN Applications.
- Common space (FTTH) is provided for service providers to install network racks and associated active \ passive infrastructure. Digital Key Telephone as required.

LOW VOLTAGE ITEMS MAKE LIST	
POINT WIRING	MODULAR
PVC CONDUIT PIPE	AKG/ POLYCAB/ PRECISION/ NEROPACK
M.S. CONDUIT PIPE	BEC/ SUPREME/ KALINGA/ PRECISION/ ANCHOR
CCTV	
CAMERA	BOSCH/ AXIS/ PELCO
CCTV CABLE	COMMSCOPE/LEGRAND/PANDUIT/TYCO
ANDROID LED DISPLAY	PANASONIC/BARCO/SONY
HARD DISK	WD/SEAGATE
PoE SWITCH	CISCO/GRANDSTREAM/DIGISOL
RACK	NETRACK/VALRACK
NVR	BOSCH/ AXIS/ PELCO
MONITOR	LG/SAMSUNG/SONY/BARCO/DELTA
PA SYSTEM	
SOUND SYSTEM	BOSCH PAVIRO PVA-4CR12 / NEUMANN
CONTROLLER	/ELECTROVOICE/HARMAN
WALL MOUNT SPEAKER	BOSCH PAVIRO PVA-4CR12 / NEUMANN /ELECTROVOICE/
	HARMAN
AMPLIFIER	BOSCH PAVIRO PVA-4CR12 / NEUMANN /ELECTROVOICE/
	HARMAN
CALL STATION	BOSCH PAVIRO PVA-4CR12 / NEUMANN /ELECTROVOICE/
	HARMAN
CONFERENCE SPEAKER	
MICROPHONE	SENNHEISER/ SHURE/ BRAEHLER
CONTROLLER	SENNHEISER/ SHURE/ BRAEHLER
SPEAKER	D&B/MEYER
ADD. FIRE ALARAM SYSTEM	
ALL FIRE DETECTOR & SOUNDER & MANUAL CALL POINT , ISOLATOR	BOSCH/NOTIFIER/EDWARD/COOPER
FIRE ALARAM PANEL	BOSCH/NOTIFIER/EDWARD/COOPER
REPEATER PANEL	BOSCH/NOTIFIER/EDWARD/COOPER
FIRE CABLE	POLYCAB/ HAVELLS /KEI
BMS SYSTEM	
CENTRAL CONTROL BMS SERVER	HP/DELL/LENOVO
BMS & IBMS	SIEMENSE/SCHNIDER/MITSUBISHI/JOHNSON CONTROL
BUILDING MANAGEMENT WEB BASED SERVER SOFTWARE	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
PROGRAMMABLE & APPLICATION SPECIFIER CONTROLLER (DDC)	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
ENCLOSURE FOR DDC CONTROLLER	RITTAL/SIEMENS/BCH
PLC	SIEMENS /ABB/SCHNEIDER
SENSOR & FIELD DEVICES	SIEMENS/HONEYWELL/JOHNSONCONTOL/SCHNEIDER
INVERTER	LUMINOUS/MEGATECH/ SU-KAM POWER SYSTEMS
ACCESS CONTROL SYSTEM	
DOOR ACCESS CONTROLLER	IDCUB/HONEYWELL/TYCO/SIEMENS/SCHNEIDER
SMART CARD REDAER	IDCUBE/HID/HONEYWELL/LENEL/TYCO/SIEMENS/ SCHNEIDER

BIOMETRIC READERS	IDEMIA/ LENEL/ TYCO SOFTWARE/INVIXIUM/SIEMENS/ SCHNEIDER
ACCESS CONTROL SOFTWARE	IDCUBE/ BOSCH/ LENEL/ TYCO/SIEMENS/ SCHNEIDER
RFID READER	FEIG/ TAG MASTER/ IDCUBE/SIEMENS/ SCHNEIDER
RFID TAGS	FEIG/ TAG MASTER/ IDCUBE/SIEMENS/ SCHNEIDER
QR CODE READER	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS/ SCHNEIDER
DOOR PANEL ENCLOSURE	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS/ SCHNEIDER
EXIT PUSH BUTTON	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS/ SCHNEIDER
ELECTRO MAGNETIC LOCK	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS/ SCHNEIDER
SMART CARD FREQUENCY EXCITATION	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS/ SCHNEIDER
EMERGENCY GLASS BREAK UNIT	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS/ SCHNEIDER
MULTI-STRANDED DATA CABLE	PANDUIT/ COMMSCOPE/ SEIMON/BELDEN/SIEMENS/ SCHNEIDER
1 X 1.5 SQ MM MULTI-STRANDED POWER CABLE	POLYCOM/BATRAHENLEY/ BELDEN
NETWORK SWITCH	JUNIPER/CISCO/ ALCATEL/ ARISTA
ACTIVE PASSIVE IT SYSTEM AND IPBX SYSTEM	
CATEGORY 6 A CABLE/PATCH CORD/ I/O / JACK PANEL/PATCH PANEL/ LIU	PANDUIT/ COMMSCOPE/ SEIMON/BELDEN/LEGRAND
FIBER MEDIA CONVERTER/LIU/ JACK PANEL	PANDUIT/ COMMSCOPE/ SEIMON/BELDEN/LEGRAND
RACK	NETRACK/ RITTAL/ PANDUIT/VALRACK
MDF BOX	KRONE/DELTON/BELDEN
RISER CABLE	KRONE/DELTON/BELDEN
FIBER RUNNER	PANDUIT/ COMMSCOPE/ SEIMON/BELDEN
CORE SWITCH	JUNIPER/ CISCO/ ALCATEL/ ARISTA
DISTRIBUTION SWITCH	JUNIPER/ CISCO/ ALCATEL/ ARISTA
MANAGEMENT PLATEFORM/CONTROLLER	JUNIPER/ CISCO/ ALCATEL/ ARISTA
WIRELESS INDOOR ACCESS POINT	JUNIPER/ CISCO/ ALCATEL/ ARISTA
FIREWALL	JUNIPER/ CISCO/ PALOALTO/FORTINET
INTERNET ROUTER	JUNIPER/ CISCO/ ALCATEL/HP
WI-FI ROUTER	JUNIPER/ CISCO/ ALCATEL/HP
WI-FI CONTROLLER	JUNIPER/ CISCO/ ALCATEL/HP
WI-FI ACCESS POINT	JoUfN1I4PE0R9/ CISCO/ ALCATEL/HP
DIGITAL KEY PHONE	PANASONIC/ ALCATEL/ AVAYA/ MICROSOFT
IP PHONE	PANASONIC/ ALCATEL/ AVAYA/ MICROSOFT
ANALOGUE PHONE	PANASONIC/ALCATEL/AVAYA/ BEETEL/ PROTEL
IP-PBX	PANASONIC/ALCATEL/AVAYA
END POINT PROTECTION	TREND MICRO/ QUICKHEAL/ NORTON

MAIL & DATABASE SERVER	DELL/LENOVO/ HP
AUDIO VIDEO WORKS	
WALL MOUNT AND CEILING LOUDSPEAKERS	BOSE/ELECTRO- VOICE/SENNHEISER/SONODYNE/YAMAHA
POWER AMPLIFIERS	BOSE/AUDAC/TOA/YAMAHA
DIGITAL SIGNAL PROCESSOR	BOSE/XILICA/SHURE/YAMAHA
CEILING TILE MICROPHONE	SENNHEISER/SHURE/RODE/BAYER-DYNAMIC
WIRELESS HANDHELD/LAPEL MICROPHONE /GOOSENECK MICROPHONE	SENNHEISER/BEYERDYNAMIC/SHURE/RODE
CHAIRMAN UNIT	BOSCH/TELEVIC/SHURE
DELEGATE UNIT	BOSCH/TELEVIC/SHURE
CENTRAL CONTROLLER UNIT WITH RECORDING FACILITY	BOSCH/TELEVIC/SHURE
SPEAKER CABLE	BELDEN/KRAMER/CRESTRON
MICROPHONE CABLE	BELDEN/KRAMER/CRESTRON
PROJECTORS	CHRISTIE/BARCO/BENQ
MOTORIZED PROJECTION SCREEN	SUDPI/SUVIRA/LIBERT AV
LED DISPLAY	SAMSUNG/LG/DELTA/BARCO/SONY
CABLE CUBBY	LOGIC/KRAMER/EXTRON
PODIUM	AHA/TECOM/PEOPLELINK/GLOBUS
IPPTZ CAMERA(FOR CONFERENCING PURPOSE)	LUMENS/VADDIO/PANASONIC/SONY
RECORDING,STREAMING& WEBCASTING DEVICE	LUMENS/CYPRESS
JOYSTICK	LUMENS/VADDIO/PANASONIC
VIDEO CONFERENCING SYSTEM	CISCO/BARCO
HDMI MATRIX SWITCHER	KRAMER/EXTRON/CRESTRON
WALL PLATE	KRAMER/EXTRON/CRESTRON
WIRELESS PRESENTATION SYSTEM	BARCO/EXTRON/KRAMER/CRESTRON
HDMI TRANSMITTER & RECEIVER	KRAMER/EXTRON/CRESTRON
CONTROL SYSTEM	KRAMER/EXTRON/CRESTRON
TOUCH PANEL	KRAMER/EXTRON/CRESTRON/APPLE
NETWORK SWITCH	CISCO/ALCATEL/ARISTA/JUNIPER
WI-FI ROUTER.	CISCO/ALCATEL/JUNIPER/HP
HDMI CABLE.	KRAMER/EXTRON/CRESTRON
EQUIPMENT RACK	NETRACK/ RITTAL / VALRACK

## TERMS OF REFERENCE AND SCOPE OF WORK FOR HVAC SYSTEM

### SCOPE OF WORK FOR HVAC

#### **Scope of Work:**

Estimated air-conditioning load for includes providing, fixing, testing and commissioning of Heating, Ventilation and Air-conditioning system for Headmaster room & Computer Lab including of Treated fresh air system (TFA) as required Cooling System proposed as per CPWD/ ASHRAE standards. To execute all associated works at site including materials supply at site associated with this work. Nature of such works will be sheet metal duct/ grill work, electrical work, refrigerant piping and drain etc. incidental civil work, incidental electrical work, cable, control panel etc. erection at site. Routine testing, pressure testing of fabricated components, commissioning of complete at site. Performance testing at site complete Hi-Wall AC as per various technical requirements as stipulated in performance testing clause.

#### **Codes and standard:**

Basically, Air-conditioning system design shall be done as per latest ASHRAE Standards. Also, other applicable Standards which shall be considered as guidelines are mentioned as under:

- American Society for Heating, Air Conditioning & Refrigeration Engineers (ASHRAE)
- ISHRAE – HVAC Handbook 2014
- BS 5588: Part 4
- IS wherever applicable.
- SMACNA Standards for Sheet Metal Ducting
- UL Standards for Fire Dampers
- ECBC Standard
- National Building Construction Standard- 2026
- Motors, cabling, wiring and accessories as per BIS Codes
- CPWD Air-conditioning system

### **1.7 ADDITIONAL REQUIREMENTS**

1. All the drawings should have a checklist stating that it follows IS codes (code name to be specified), NBC 2026, CPWD specifications. Also, the contractor has to provide any data and detail asked by Engineer to finalize and accept the scheme, drawings etc., which shall be provided on the established standard/guidelines/codes etc.
2. Clearances to be taken by the firm from the Employer before start of work. The above schemes of all the E&M works shall have to meet all the requirements of local bodies/ Fire Services / Electrical Authority/ NBC norms as applicable & also meet the technical specifications of various relevant CPWD specifications for electrical & mechanical services.
3. The contractor must make their own arrangements for storage of sundry materials and erection equipment. No separate storage accommodation shall be provided by the Employer. Watch and ward of the stores and their safe custody shall be the responsibility of the contractor till the final taking over of the installation by the client Employer. Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building. He shall be responsible for repairing all damage and restoring the same to their original finish at his cost. He shall

also remove at his cost all unwanted and waste materials arising out of the installation from the site of work.

4. All equipment shall have a warranty as provided by OEM from the date of taking over/ installation, against unsatisfactory performance and/or breakdown due to defective design, workmanship or material. The equipment or components, or any part thereof, found defective during the warranty period shall be repaired or replaced free of cost, to the satisfaction of the Engineer. In case it is felt by the Employer that undue delay is being caused by the contractor in doing this, the same will be done by the Employer at the risk and cost of the contractor. The decision of the Engineer in this regard shall be final & binding on the contractor.

### **1.8 MAINTENANCE OBLIGATIONS OF THE CONTRACTOR**

i. The Contractor shall maintain the school building including school premises for a period of 2 (Two) years from the end of Defects Liability Period of 3 (three) years. For the performance of its maintenance obligations; the Contractor shall be paid @ 1.25% of the Contract Price for the 4<sup>th</sup> year and @ 1.50% of the Contract Price for the 5<sup>th</sup> year.

ii. During the Maintenance Period, the Employer shall provide to the Contractor access to the site for maintenance in accordance with this agreement. The obligations of the Contractor hereunder shall include:

(a) permitting safe, smooth and uninterrupted teaching and other activities in the school premises;

(b) undertaking routine maintenance including prompt repairs of cracks & joints in masonry, ceilings of roof slab & chajjas, water proofing treatment to roof slab & water retaining structures, repair of doors, windows & ventilators, repair of flooring, inside & outside paintings of school buildings, other buildings and compound wall, paintings of wooden doors/ windows/ ventilators and MS Grills and Gates, serviceability of doors/ windows, repair & maintenance of internal EI and PH installations, maintenance of external water supply & sewerage works and any other maintenance works as pointed out by the Engineer-in-Charge from time to time.

(c) The Contractor shall remove promptly from the school premises any waste materials (including hazardous materials and wastewater), rubbish and other debris and keep the school premises in a clean, tidy and orderly condition.

(d) The Contractor shall prepare a monthly maintenance programme in consultation with the Engineer-in-Charge and submit the same to the Engineer not later than 10 (ten) days prior to the commencement of the month in which the Maintenance is to be carried out. For this purpose, a joint monthly inspection by the Contractor and the Engineer shall be undertaken. The Maintenance Programme shall contain the following:

- (i) the condition of the building in the format prescribed by the Engineer;
- (ii) the proposed maintenance Works; and

(ii) deployment of resources for maintenance Works.

(e) Maintenance Manual :- No later than 60 (sixty) days prior to the Project Completion Date, the Contractor shall, in consultation with the Engineer, prepare a maintenance manual for the regular and preventive maintenance of the school building and school premises in conformity with the CPWD Maintenance Manual-2023, IS 15183 (Part-I, 2 & 3) & other standard practices and shall provide 5 (five) copies thereof to the Engineer. The Engineer shall review the Maintenance Manual within 15 (fifteen) days of its receipt and communicate its comments to the Contractor for necessary modifications, if any.

(f) In the event that the Contractor fails to repair or rectify any Defect or deficiency notified by the Engineer-in-Charge within the stipulated period, it shall be deemed as failure of performance of Maintenance obligations by the Contractor and the Employer shall be entitled to take action as per the provision of the contract.

## E. APPENDIX II

### LIST OF ACCEPTABLE MAKES

*The following list of approved vendors are provided for different materials.*

SL.N O	ITEM	MANUFACTURER/BRAND NAME
<b>A.</b>	<b>CIVIL AND INTERIOR WORKS</b>	
1	CEMENT	DALMIA /ULTRATECH/ ACC/ RAMCO/ NUVOCO/ JSW CEMENT
2	WHITE CEMENT/PUTTY	J.K./BIRLA/BERGER/NEROLAC/AMBUJA/ DALMIA/ULTRATECH
3	REINFORCEMENT STEEL (TMT BARS/CRS)	VIZAG/SAIL/ TATA /JINDAL/SHYAM
4	STRUCTURAL STEEL SECTIONS /TUBES	VIZAG/SAIL/ TATA /JINDAL
5	CONCRETE ADDITIVES	FOSROC/ SIKA/ TREMCO/BASF/PIDILITE
6	ANTI TERMITE	AS APPROVED BY ENGR-IN- CHARGE IN COMPLIANCE WITH THE SPECIFICATIONS
7	TILE ADHESIVE & EPOXY GROUTS	FERROUS CRETE/ WEBER/TREMCO/KERAKOLL/ MYK/FOSROC
8	POLYSULPHIDE SEALANT	WEBER/TREMCO/KERAKOLL/FOSROC/SI KA/3M
9	SILICONE SEALANT	GE SILICON/ BASF/ALSTONE/MAPEI/FOSROC/DOW
10	WATER PROOFING MEMBRANE /COMPOUND	FOSROC/ SIKA/ TREMCO/BASF/PIDILITE
11	CRYSTALLINE WATERPROOFING	FOSROC/ SIKA/ TREMCO/BASF/PIDILITE

12	ADMIXTURE	FOSROC/ SIKA/ TREMCO/BASF/PIDILITE
13	FORMWORK RELEASE AGENT	FOSROC/ SIKA/ TREMCO/BASF/PIDILITE
14	NON-SHRINK GROUTS	FOSROC/ SIKA/ TREMCO/BASF/PIDILITE
15	NON-METALLIC FLOOR HARDENERS	FOSROC/ SIKA/TREMCO/BASF/LATICRETE/MAPEI/ ARDEX
16	BITUMEN	IOCL/HPCL/BPCL/HINCOL/SHELL
17	SYNTHETIC ENAMEL PAINTS (MINIMUM 7 YEARS WARRENTY)	BERGER/ NEROLAC/ DULUX/ ASIAN PAINTS
18	OIL BOUND DISTEMPER (MINIMUM 5 YEARS WARRENTY)	BERGER/ NEROLAC/ DULUX/ ASIAN PAINTS
19	CEMENT PAINT (MINIMUM 5 YEARS WARRENTY)	BERGER/ NEROLAC/ DULUX/ ASIAN PAINTS
20	STONE SEALER (MINIMUM 5 YEARS WARRANTY)	FERROUS CRETE/ ULTRATECH/LATICRETE/FOSROC/BASF
21	PLASTIC EMULSION PAINT (MINIMUM 7 YEARS WARRENTY)	BERGER/ NEROLAC/ ASIAN PAINTS/ DULUX
22	OTHER PAINTS & PRIMER	BERGER/ NEROLAC/ DULUX/ ASIAN PAINTS/ULTRATECH
23	EXTERIOR TEXTURE COATINGS/PAINTS	BERGER/ NEROLAC/ ASIAN PAINTS/ DULUX/ULTRATECH
24	MELAMINE (MINIMUM 5 YEARS WARRENTY)	ICI DULUX/ ASIAN PAINTS/ TIMBERSTONE MELAMINE COATING/ BERGER/JIVANJOR
25	POLYURETHANE PAINT	BERGER/ NEROLAC/ ASIAN PAINTS/DULUX/JOTUN/AKZONOBEL
26	PU COATING IN PARKING AREAS	FOSROC/ SIKA/ TREMCO/BASF/JOTUN/AKZONOBEL/PIDILITE
27	SILICON WATER REPELLENT SOLUTION	GE SILICON/ BASF/DOW/FOSROC/SIKA/PIDILITE
28	VITRIFIED / CERAMIC TILES (5 Tiles will be tested randomly in Every Lot)	KAJARIA/JHONSON/RAK/SOMANY
29	LAMINATED WOODEN FLOORING	PERGO/ BERRY. FLOOR MASTER/ ACTION TEESA
30	PVC/VINYL FLOORING	FORBO/ TARKETT/ARMSTRONG/MAPEI/DLW/GE RFLOR
31	EPOXY TERRAZZO FLOORING	TREMCO/SIKA/FOSROC/PIDILITE
32	PVC RESIN FLOORING	TREMCO/SIKA/FOSROC/PIDILITE
33	LAMINATES & VENEERS	ARCHIDPLY/ STYLAM/ DURO/ GREENLAM/ MERINO
34	MDF/HDF	ARCHIDPLY/ STYLAM/ DURO/ GREENLAM/ MERINO

35	ADHESIVE FOR WOODWORK	PIDILITE/ BENSON/CHEMISOLS/ARALDITE
36	PRE-LAMINATED PARTICLE BOARD	ARCHIDPLY/ STYLAM/ DURO PLY/GREENLAM/MERINO
37	PLYWOOD, BLOCK BOARD, SOFT BOARD	ARCHIDPLY/ STYLAM/ DURO PLY/ CENTURY PLY/GREEN LAM/MERINO
38	PAVING STONES/BLOCKS	AS APPROVED BY ENGR-IN- CHARGE IN COMPLIANCE WITH THE SPECIFICATIONS
39	WAX POLISH	MANSION/ RECKITT & COLMAN/UNILEVER
40	POLYETHANE SEALANT	WEBER/TREMCO/KERAKOLL/FOSROC/SIKA/3M/PIDILITE
41	POLYETHELENEBOARD, BACK UP ROD	SUPREME INDUSTRIES/ SOFTEX/ SRINIDHI PLASTIC INDUSTRIES/ALSTONE
42	WATER STOPPER	SIKA/FOSROC/ROFF/TREMCO/PIDILITE
43	ALUMINIUM COMPOSITE PANEL	ALUCOBOND/ ALUDECOR/ ALSTONE/VIVA
44	ASPHALT EMULSION	IOCL/HPCL/BPCL/HINCOL/SHELL
45	SS CLAMP /EXPANSION FASTENER / DASH FASTENER /ANCHOR FASTENER, ANCHOR BOLTS	HILTI/ FISCHER/UNBRAKO/WUERTH
46	STAINLESS STEEL	SALEM/ JINDAL/ TATA
47	GYPSUM PARTITION	SAINT GOBIN/ LAFARGE/ USG KNAUF
48	ELECTRODES	ADVANI-OVERLIKON/ ESAB/ DWEKAM/ VICTOR / ADOR / COSMOS
49	H.T. BOLTS	UNBRAKO/ HILTI/ FISCHER/WUERTH
50	STEEL DOORS /STEEL WINDOW/PRESSED STEEL DOOR FRAME /ROLLING SHUTTER/STEEL FIRE DOORS	TATA/NCL/HORMANN/NAVAIR INTERNATIONAL
51	Fire Door Metal	NAVAIR INTERNATIONAL/JAIN DOOR/BHAWANI FIRE/IHMS/SUKRITI DOORS/PACIFIC FIRE CONTROLS/HORMANN
52	FIRE DOOR (WOODEN)	NAVAIR INTERNATIONAL/JAIN DOOR/BHAWANI FIRE/IHMS/SUKRITI DOORS/PACIFIC FIRE CONTROLS/HORMANN
53	FIRE GLAZE DOOR	SAINTGOBIN/HARMANN/VETROTECH/R ADIANT
54	ALUMINUM SECTIONS	JINDAL/ HINDALCO/ INDALCO / BHARUKA
55	THERMAL INSULATION (UNDER DECK / OVER DECK/WALL)	OWENS CORNING/BASF/KNAUF/DOW/ROCKWOOL

56	POLYCARBONATE SHEETS	GE PLASTICS/ DANPALON/ LEXAN/DPI DAY LIGHTING/MG PLASTO/SABIC INDIA
57	SELF-DRILLING SCREWS	HILTI/ FISCHER/UNBRAKO/WUERTH
58	FLUSH DOORS	ARCHIDPLY/JAIN DOOR/GREEN LAM/MERINO
59	MS SLIDING MOTORIZED DOOR	DORMA/KONE/TORMAX/ASSA ABLOY
60	ALUMINUM FITTINGS	DORMA/HETTICH/DORSET
61	OUTDOOR FURNITURE (SITTING BENCH, DUSTBIN)	GODREJ/FEATHERLITE/GEEKEN/HNI/BO MBAYS SAFE
62	MODULAR FURNITURE	GODREJ/FEATHERLITE/GEEKEN/HNI/BO MBAYS SAFE
63	CHAIRS AND SOFAS	GODREJ/FEATHERLITE/GEEKEN/HNI/BO MBAYS SAFE
64	CUSTOMIZED MODULAR FIXED & LAB FURNITURE, etc.	GODREJ/FEATHERLITE/GEEKEN/HNI/BO MBAYS SAFE
65	ACOUSTICAL PANELING	ARMSTRONG/HUNTER DOUGLAS/LIGNOSI/SAS INTERNATIONAL/USG KNAUF
66	MODULAR TOILETS	MERINO/ GREEN LAM
67	MOSAIC TILES	KAJARIA/JHONSON/RAK
68	ACOUSTICAL FALSE CEILING	ARMSTRONG/HUNTER DOUGLAS/LIGNOSI/SAS INTERNATIONAL/USG KNAUF
69	EXTERIOR TILES	KAJARIA/JHONSON/RAK
70	PATCH FITTING/ SPIDER FITTING	DORMA/ OZONE/ DORSET/ TAITON
71	UPVC DOOR & WINDOW	FENESTA/ KOEMMERLING/ PROMINANCE/ VEKA /ALUPLAST
72	ACID AND ALKALI RESISTENT TILES	KAJARIA/JHONSON/RAK
73	ROLLER BLINDS	HUNTER DOUGLAS /VISTA
74	GRC JALI	AS PER DIRECTIONS OF THE EIC
75	METAL CEILING	HUNTER DOUGLAS/ DURLUM/USG KNAUF/ARMSTRONG
76	DECKING SHEET	TATA BLUESCOPE/JSW STEEL/SAIL/JINDAL
77	GLASS BRICKS/BLOCKS	SOLARIS/ SEVES/ SPG CORPORATION
78	ALUMINIUM STANDING SEAM ROOFING	KALZIP/BEMO/SANKO/KINGSPAN
79	FOAM CONCRETE	SHALIFOAM/ SILICA GROUP/PRATIBHA/J.B INTERNATIONAL/HEMCARE
80	EXPANSION JOINTS	EKSPAN/JOINT MASTER/TRELLEBORG/EMSEAL/UNISON

81	RAISED/FALSE ACCESS FLOORING	UNITILE/ UNIFLOOR/ TATE/ALUFLOR
82	LIFTS & Dumb Waiters	KONE/OTIS/ TKE/SCHNEIDER/MITSUBISHI
83	CALCIUM SILICATE FALSE CEILING	ARMSTRONG/ DEXUNE/USG KNUAF/SAS INTERNATIONAL/USG BORAL
84	GRG FALSE CEILING	DIAMOND CEILINGS/KNAUF CEILING/GYPROC/USG BORAL
85	MINERAL FIBER FALSE CEILING	DIAMOND CEILINGS/ARMSTRONG/HUNTER DOUGLAS/DURLUM
86	METAL FALSE CEILING	DIAMOND CEILINGS/ARMSTRONG/HUNTER DOUGLAS/DURLUM
87	“T” GRID FOR FALSE CEILING	HUNTER DOUGLAS/ DURLUM/USG KNAUF/ARMSTRONG
88	FIRE RATING HARDWARE	MARSHALL/DORMA/BACKER FS/GEZE/ASSA ABLOY
89	PHENOL BONDED BAMBOOWOOD FLOORING	EPITOME/FLOOR INDIA /ECO GREEN
90	SIGNAGES	COSIGN/COOPER/GEVIS/LEGRAND/MK/P HILIPS/PROLITE/THORN/TEKNOWARE
91	AUTOCLAVED AERATED CEMENT BLOCKS (AAC)	AS APPROVED BY ENGINEER-IN-CHARGE IN COMPLIANCE WITH THE SPECIFICATIONS
92	POLYMER MODIFIED ADHESIVE FOR AAC BLOCKS	TREMCO/KERAKOLL/SIKA/MYK/WEBER
93	SS RAILING FITTINGS	DORMA/HETTICH/DORSET
94	FLOOR SPRING/ DOOR CLOSER	DORMA/HETTICH/DORSET
95	AUTOMATIC SLIDING DOOR	OZONE/ DORMA CROWN / ASSA ABLOY
96	MODULAR KITCHEN	GODREJ INTERIO/ HAFFLE/ HACKER/ OZONE
97	FACTORY-MADE HIGH-PERFORMANCE ALUMINIUM WINDOWS/ SYSTEM WINDOWS	TOSTEM/REYNER/S/KAWNEER/SCHUCO/ ALUK/HAFELE
98	BAFFLE METAL CEILINGS	HUNTER DOUGLAS/DURLUM/USG/KNAUF/ARMSTRONG/SAS INTERNATIONAL
99	FACADE SYSTEMS	SCHUCO/SAPA/ REYNER/S/ KAWNEER/ALUK
100	3D ALUMINUM JALI/ MESH	DECOGRILLE/ALSTRONG/GKD/ALUMINOUS
101	CARPET	FLOTEX/ FORBO/BENTLEY/ MODULYSS
102	SWIMMING POOL	ASTRAL POOL / HAYWARD /JANDY/STARLING /CERTIKIN
103	INDOOR SPORTS FLOORING(SAI approved)	CONIPUR HG / POLYTAN /STOCKMERIER/KDF

104	SYNTHETIC TRACK (SAI approved)	POLYTAN/CONICA AG/PORPLASTIC/STOCKMEIER URETHANES
105	HOCKEY TURF (SAI approved)	POLYTAN/CONICA AG/PORPLASTIC/STOCKMEIER URETHANES
106	FOOTBALL FIFA APPROVED TURF	POLYTAN/CONICA AG/PORPLASTIC/STOCKMEIER URETHANES
107	BASKETBALL SYNTHETIC TURF (SAI approved)	CONICA / POLYTAN /STOCKMERIER/KDF
108	TENNIS (ACRYLIC ITF APPROVED)	REBOUND ACE / FLEXITEN / LAYKOLD/KDF
109	ATHLETIC TRACK & FIELD EQUIPMENT(WA APPROVED)	VINEX /AFN/NELCO
110	FACADE LIGHTING	LIGHTING TECHNOLOGY/K-LITE/UNILAMP/ENDO/IGUZZINI/DISAND O/LEKSA
111	TENSILE FABRIC	SERGE FERRARI, MEHLER, SIOEN
112	MIRROR	Saint-Gobain / Asahi / MODI
113	Clear Float Glass	Saint-Gobain / Asahi / Modi
114	Fire Rated Glass	Saint-Gobain / Pilkington / Firelite / Glaverbel/Aashi/ Modi/ SCHOTT/ AIS
115	Glass Processing	Saint-Gobain / Asahi / Pilkington/Modi
116	PVB Lamination	Dupont / Saflex
117	Weather Sealant & Structural Sealant	DowCorning/GE/ALSTONE/Mccoy
118	Anchor Channels (Cast in Channel)	Halfen / Hilti / Jordhal/ Fischers
119	EPDM & Silicon Gasket	Schuco I SAPA Building Systems/ European/ Favade Product (EPF) / Reyners
120	Powder Coating	Jotun / Akzonoble/Valspar
121	PVDF Coating	Jotun / Akzonoble/Valspar
122	Powder & PVDF Processer	SP Coating / MJ Coaters / Aura International
123	Smoke Seal intumescent	HAFELE/ENVIROGRAF/WEDGE/PROMAT/ MANN MAGOWAN/INTUFLAME
124	SS Spider Fittings	DORMA/HETTICH/DORSET
125	SS Patch Fitting	DORMA/HETTICH/DORSET
126	SS Friction Hinges / Multipoint Locking sets/ Handle/ Rollers / Flush Lock/ Wool Pile with Silent Film/ Windows Hinges/ Door Hinges	Giesse / Cotswold/ Securistyle/ Schuco / SAPA Building Systems/ European Facade Product (EPF)/ Reyners/DORMA/ OZONE/ ASSA ABLOY/GODREJ
127	Mechanical Couplar	USHA MARTIN, ASCON, HERRISAN, DORMA, OZONE, ASSA ABLOY, GODREJ

128	Precast drain cover/kerb channel	KK, NITCO, UNISTONE, MODERN TILES
129	LACQURED GLASS	SAINT GOBAIN, ASAHI, PILKINGTON
130	GRASS PAVER	AS APPROVED BY ENGR-IN- CHARGE IN COMPLIANCE WITH THE SPECIFICATIONS
131	Fire sealant	3M/PROMAT/FISCHER/ROXTEC
132	Nut Bolts and Washers	AS APPROVED BY ENGR-IN- CHARGE IN COMPLIANCE WITH THE SPECIFICATIONS
133	Aluminium Expansion Joints (10 Years Warranty)	MAURER-Sanfield/DECG International/Bruecke Gebaeude/BALCO/UNISON/KAIZEN
134	WPC FRAME	DARWAJA MANUFACTURER INDUSTRIES, MATHURA SIVA SAKTI FIBRES & UDYOG O EQUIVALENT
<b>B</b>	<b>ELECTRICAL WORKS</b>	
<b>A</b>	<b>ELECTRICAL HIGH SIDE EQUIPMENT</b>	<b>ELECTRICAL HIGH SIDE EQUIPMENT</b>
1	UPS SYSTEM	VERTIV/EMERSON/APC/EATON/ABB/CYBER POWER/FUJI
2	INVERTOR	LUMINOUS/ MICROTEK / SUKAM/DELTA/EXIDE
<b>B.</b>	<b>ELECTRICAL SYSTEM/PANELS</b>	
1	FUSES & SWITCH FUSE UNIT	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
2	ACB / MCCB / CONTACTOR	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
3	METAL CLAD SOCKET (Industrial)	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
4	RISING MAINS / BUS DUCT	L&T/ ABB/SCHNEIDER/ADVANCE/LEGRAND/SUPER TECH CONTROL
5	LED LIGHT-INDICATING LAMP (PANEL INDICATOR)	SIEMENS/ABB/L&T/BCH/ESBEE/LEGERO/GE
6	ISOLATORS FOR MOTORS	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
7	CHANGE OVER SWITCH	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
8	CONTACTOR, TIMER, SINGLE PHASE PREVENTOR & OVER LOAD RELAY	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
9	METERS - DIGITAL TYPE (Approval taken by line Department)	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
10	PROTECTIVE & APFC RELAYS	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
11	CT'S / PT'S- DRY TYPE-EPOXY	AE/ KAPPA /GE
12	INDICATING LAMP / PUSH BUTTON ACTUATORS - LED CLUSTER TYPE	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE

13	ROTARY SWITCHES	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
14	TERMINAL BLOCK	ELEMEX/ WAGO/SCHNEIDER
15	MAIN LT PANEL	SEIMENS-SIEPAN/SCHNEIDER-BLOCKSET/ABB-ARTUK/L&T-TI
16	LT PANELS/CAPACITOR PANEL /SYNC PANEL /SUB PANEL/ FEEDAR PILLAR/HVAC PANEL (AS PER CERTIFIED DESIGN BY THE OEM) (Design Vertical assembly as per IEC-61439-Part 1&2)	L&T/ABB/SEIMENS/SCHNEIDER/ADVANCE/SPC ELECTROTECH/VDEAL
17	LIGHTNING ARRESTER	OBO/OBLUM/ABB/ERICO/CAPE/ Dhen
18	ATS / STS	L&T/ ABB/ SCHNEIDER/ SIEMENS/GE
19	Solar PV Panels (RFID TO BE EMBEDDED IN THE PANEL)	Tata/RenewSys India/Adani/Waaree
20	SCADA(Supervisory Control and Data Acquisition)	ABB/SEIMENS/SCHNEIDER/HONEYWELL /ROCKWELL
21	DUEL FIRED STEAM BOILERS	THERMAX/CHEEMA/ROSS/HEATEX/IBL
22	Aviation Obstruction Light (LED Type)	Actos/Bajaj/Binay
23	HDPE Pipe for underground cable only	Reliance/Kaplan/Durolane
24	Occupancy sensors	ABB/Anchor (Panasonic)/Schneider/ Creston/ Lutron/ MK (Honeywell)
25	33&11 KV Ring Main Unit (With Metering)	L&T/ABB/ SCHNEIDER/ SIEMENS/GE
26	33&11 KV Ring Main Unit (Without Metering)	L&T/ABB/ SCHNEIDER/ SIEMENS/GE
<b>C.</b>	<b>CABLES/ TERMINATIONS/ACCESSORIES</b>	
1	LUGS	DOWELLS/ COMET/ BALIGA/JHONSON
2	BRASS CABLE GLANDS	DOWELLS/ COMET/ BALIGA/JHONSON
3	LT POWER CABLE (CU/AL) (Only FRLS to be used)	POLYCAB/KEI/AKG/HAVELLS
4	CONTROL CABLE (COPPER)	POLYCAB/KEI/AKG/HAVELLS
5	HT XLPE CABLE	POLYCAB/KEI/AKG/HAVELLS
6	H.T. CABLE END TERMINATION	POLYCAB/KEI/AKG/HAVELLS/3M/XYLEM/RAYCHEM
<b>D.</b>	<b>CONDUITING &amp; WIRING ACCESSORIES</b>	
1	MS CONDUIT WITH ACCESSORIES / GI CONDUIT	AKG/RAMCON/PRECISION/ BEC/ NIC/STEEL CRAFT
2	PVC/ Fire Retardent (FR) CONDUIT WITH ACCESSORIES	AKG/BEC/RAMCON/SKIPPER PIPES/ POLY PACK/ PRECISION

3	PVC INSULATED COPPER CONDUCTOR FRLS WIRE	POLYCAB/ HAVELLS /KEI/AKG/BONTON/ FINOLEX
4	PLATE TYPE - SWITCHES / SOCKETS / TV & TELEPHONE SOCKETS AND ALL OTHER WIRING ACCESSORIES (ONE MODEL ABOVE BASE MODEL)	LEGRAND/ PANASONIC/ABB/Crabtree/ Precision/ Northwest
5	RACEWAYS & CABLE TRAY	BEC/OBO/ LEGRAND/ENFORTURE INFRATECH/ADVACNE/SUPER TECH CONTROL
<b>E.</b>	<b>LIGHTING DBS &amp; MCBS</b>	
1	MCB/ ELCB/ ELMCB / RCCB	ABB/ LEGRAND/ SCHNIDER/SIEMENS / L&T(HAGER)
2	DISTRIBUTION BOARD	ABB/ LEGRAND/ SCHNIDER/SIEMENS / L&T(HAGER)
<b>F.</b>	<b>LIGHTING FIXTURES &amp; FANS</b>	
1	BULK HEAD FITTINGS	WIPRO/ PHILIPS/ BAJAJ/KLITE/HOMEDEC
2	LIGHTING FIXTURES INTERNAL	IGUZZINI/LIGMAN/BEGA/LT
3	FACADE LIGHTING	IGUZZINI/LIGMAN/BEGA/LT
4	LANDSCAPE LIGHTING	IGUZZINI/LIGMAN/BEGA/LT
5	FLOOD LIGHTING	WIPRO/ PHILIPS/ BAJAJ/KLITE/HOMEDEC
6	LIGHTING CONTROL SYSTEM	HELVAR/ CRESTRON/ ZUMTOBEL/ SIEMENS/ LIGMAN/LIGHTING TECHNOLOGY
7	STREET LIGHT & POLES	LIGMAN/HOMEDEC/LIGHTING TECHNOLOGY/BAJAJ/KLITE/HOMEDEC
8	DECORATIVE LIGHT POLES	IGUZZINI/LIGMAN/BEGA/LT/HOMEDEC/ KLITE
9	EXHAUST FANS / CEILING FAN / WALL MOUNTED FAN	USHA/CROMPTON/ORIENT/WIPRO/ PHILIPS/ BAJAJ
<b>G.</b>	<b>CCTV/ FIRE ALARM SYSTEMS</b>	
1	FIRE ALARM SYSTEM	SIEMENS/ HONEYWELL-NOTIFIER/ BOSCH/ EDWARDS/JHONSON CONTROLS-SIMPLEX
2	SMOKE DETECTORS / MULTISENSOR	SIEMENS/ HONEYWELL-NOTIFIER/ BOSCH/ EDWARDS/JHONSON CONTROLS-SIMPLEX
3	HEAT DETECTORS / CO DETECTORS	SIEMENS/ HONEYWELL-NOTIFIER/ BOSCH/ EDWARDS/JHONSON CONTROLS-SIMPLEX
4	MANUAL CALL BOX	SIEMENS/ HONEYWELL-NOTIFIER/ BOSCH/ EDWARDS/JHONSON CONTROLS-SIMPLEX
5	HOOTER/ SOUNDER / MODULES/ FAULT ISOLATORS	SIEMENS/ HONEYWELL-NOTIFIER/ BOSCH/ EDWARDS/JHONSON CONTROLS-SIMPLEX

6	RESPONSE INDICATOR	SIEMENS/ HONEYWELL-NOTIFIER/ BOSCH/ EDWARDS/JHONSON CONTROLS-SIMPLEX
7	FIRE PANEL/REPEATER PANEL	SIEMENS/ HONEYWELL-NOTIFIER/ BOSCH/ EDWARDS/JHONSON CONTROLS-SIMPLEX
8	FIRE ALARM SYSTEM- FIRE SURVIVAL CABLE	POLYCAB/AKG/HAVELLS/KEI
9	CAMERA WITH ALL ACCESSORIES	HONEYWELL/AXIS/BOSCH/PELCO
10	ROAD BARRIER	NICE / MAGNETICS / GODREJ /MOTWANE
11	PARKING MANAGEMENT SYSTEM	DESIGNA/SKIDATA/HOUSTON
12	LED PANEL/MONITOR/VIDEO WALL	LG/ SAMSUNG / SONY/BARCO/CHRISTIE/DELTA
13	TELEPHONE TAG BLOCK	COMMSCOPE / SCHNEIDER / PANDUIT/KRONE
14	TELEPHONE CABLES	KEI/ POLYCAB/ BELDEN/LEGRAND/DELTON
15	CO-AXIAL CABLES	KEI/ POLYCAB/ HAVELLS/ BELDEN
16	CATEGORY 6A CABLE	PANDUIT/COMMSCOPE/BELDEN/SEIMON
17	MICC CABLE	NORDEN/KERONE/WREHAM
18	NETWORK SWITCH	JUNIPER/CISCO/ARISTA
<b>H.</b>	<b>MISCELLANEOUS SYSTEMS</b>	
1	BATTERIES	EXIDE/ STANDARD/AMARON/ AMCO
2	BATTERY CHARGER	EXIDE/ STANDARD/AMARON/ AMCO
3	EARTHING (ALL TYPE)	NUTECH PRODUCTS/ DEHN /TRIPROTEC/ TERCEL/ PRANAV ENERGY/OBO
<b>I.</b>	<b>DG/PANEL/TRANSFORMER</b>	
1	ALTERNATOR	STAMFORD/ CATERPILLAR/ CROMPTON/ LEROY SOMER/ KIRLOSKAR
2	ENGINE	CUMMINS/ MTU/BAUDOUIN CATERPILLAR/
3	HT PANELS	ABB / SIEMENS / SCHNIEDER /L&T
4	TRANSFORMER	VOLTAMP/ KIRLOSKAR /Crompton Greaves /PVJ
5	UNITISED / COMPACT SUB-STATION	ABB/SIEMENS/ SCHNIEDER/Crompton Greaves
6	DG	JACKSON/KIRLOSKAR/ Greaves/STERLING/ASHOKA Cummins/
<b>J</b>	<b>PLUMBING SYSTEM</b>	
1	VITREOUS CHINA SANITARYWARE	KOHLER/GROHE/ROCA/JAQUAR
2	PLASTIC W.C.SEATS & COVERS	KOHLER/GROHE/ROCA/ JAQUAR
3	C.P. FITTINGS:	KOHLER/GROHE/ROCA/ JAQUAR

4	AUTOMATIC WATER TAPS, AUTOMATIC URINAL FLUSHING	KOHLER/GROHE/ROCA/ JAQUAR
5	TOWEL RING, TOWEL ROD, TOWEL RACK, COAT HOOK ETC. (304 GRADE S.S.)	KOHLER/GROHE/ROCA/ JAQUAR
6	CHROMIUM PLATED / STAINLESS STEEL / POLY VENIEL CHLORIDE GRATING	KOHLER/GROHE/ROCA/ JAQUAR
7	PH TOILET ONLY	HINDWARE/CERA/PARRYWARE
8	STAINLESS STEEL SINK	JAYNA /NIRALI/NEELKANT/KINGSTON
9	G.I. & M.S. PIPES PART-I IS: 1239 UPTO 150 MM AND M.S. PIPES PART-II IS: 3589 ABOVE 150 MM	TATA STEEL (TUBE DIVISION)/JINDAL HISAR/SAIL
10	G.I. AND M.S. FITTINGS	UNIK/ ZOLOTO / JAINSON / BHARATFORGE
11	PVC PIPES & FITTINGS	ASTRAL/FINOLEX INDUSTRIES/AKG/SUPREME/ASHIRBAD
12	UPVC PIPES & FITTINGS	ASTRAL/FINOLEX INDUSTRIES/AKG/SUPREME/ASHIRBAD
13	CPVC PIPES & FITTINGS	ASTRAL/FINOLEX INDUSTRIES/AKG/SUPREME/ASHIRBAD
14	SWR PIPES & FITTINGS	ASTRAL/FINOLEX INDUSTRIES/AKG/SUPREME/ASHIRBAD
15	HDPE PIPE & FITTINGS (For Soil & Waste Dual Stack system)	GABERIT/ACO
16	R.C.C. PIPES (NP2,NP3,NP4)	PRAGATI CONCRETE UDYOG/ K.K. SPUN PIPES/ J. K. SPUN PIPES/SOOD &SOOD/HUME
17	WATER TANK (ISI MARK)	ASTRAL/FINOLEX INDUSTRIES/AKG/ SUPREME/SYNTEX
18	FORGED BRASS BALL VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
19	F.B. MULTI UTILITY CHECK VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
20	F.B. AIR VENT	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
21	F.B.P.R.V.	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
22	FLOAT VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
23	C.I, SLUICE VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/KIRLOSKAR/L&T
24	C.I. BUTTER FLY	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/KIRLOSKAR/L&T
25	C.I.NRV REFLUX	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/L&T
26	C.I. DUAL PLATE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/L&T
27	D.I. WAFER TYPE CHECK VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/L&T

28	C.I. Y TYPE STRAINER	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
29	C.I. DOUBLE ACTING AIR VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/KIRLOSKAR
30	FOOT VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
31	REST ALL TYPE OF VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/L&T
32	HAND DRIER (304 GRADE S.S.)	EURONICS/GROHE/KOHLAR/DURAVIT
33	LIQUID SOAP DISPENSER (304 GRADE S.S.)	EURONICS/BOBRIC/SLOAN/PRESTIGE/NIRALI
34	STORAGE TYPE WATER HEATER (5 STAR RATED)	RACOLD/ CROMPTON/ JAQUAR/HAVELLS
35	INSULATION	THERMAFLEX / AEROFLEX / K FLEX/ A-FLEX
36	SOLAR HOT WATER EQUIPMENT	TATA SOLAR/ SOLAHART/ GREENTEK
37	PVC FOOT REST & SFRC COVERS	KGM/ Patel / Pranali Industries
38	STAINLESS STEEL PIPES & 316L	INOX-KANTHERM/ CONEX BÄNNINGER/ VIEGA/ AQUINOX/VSH
39	FRP Manholes Covers	EVERLAST/THERMO SET/RX
40	PRESSURE RELIEF VALVES	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
41	PRESSURE REDUCING VALVES	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
<b>K</b>	<b>PUMPS AND EQUIPMENTS</b>	
1	WATER TRANSFER PUMPS	WILO/GROUNDFOS/KIRLOSKAR/CROMPTON
2	IRRIGATION PUMP	WILO/GROUNDFOS/KIRLOSKAR/CROMPTON
3	SUMP PUMP	WILO/GROUNDFOS/KIRLOSKAR/CROMPTON
4	WATER LEVEL INDICATOR	MINILEC/AUTOPUMP/TECHNIKA/Elegant Controls
5	WATER LEVEL CONTROLLER	MINILEC/AUTOPUMP/TECHNIKA/Elegant Controls
6	ELECTRONIC SENSING PROBE	MINILEC/AUTOPUMP/TECHNIKA/Elegant Controls
7	WATER METER	CRESENT/ KRANTI/KENT/KAPSTAN/WIKA
8	SOUNDER PATTERN VALVE FOR FILTER AND SOFTENER	LABLINE/ AIP (AGRICULTURE AND INDUSTRIAL PUMPS)
9	PRESSURE GAUGE	FIEBIG/EMERALD/WIKA
10	ELECTRICAL PANEL (TTA PANEL)	SIEMENS/SCHNEIDER/L&T/ABB/SUPER TECH CONTROL
11	NON RETURN VALVE (65MM DIA & ABOVE)	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
12	BUTTERFLY VALVE (LEVER TYPE)	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/AUDCO/DANFOS

13	BUTTERFLY VALVE (GEAR TYPE)	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/AUDCO/DANFOS
14	MOTORIZED VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/AUDCO/DANFOS
15	VIBRATION PAD	RESISTOFLEX/ EASYFLEX/DULOP/EMERALD
16	VIBRATION ELIMINATOR	RESISTOFLEX/ EASYFLEX/DULOP/EMERALD
17	Booster Pumps	Grundfos / Wilo-Mather & Platt/KIRLOSKAR
18	Self-Priming Pumps	WILO/GROUNDFOS/KIRLOSKAR/CROMPTON
<b>L</b>	<b>FIRE FIGHTING SYSTEM</b>	
1	ELECTRIC DRIVEN MOTOR AND PUMPS	WILO/GROUNDFOS/CROMPTON/KIRLOSKAR/KSB/MATHER PLATT
2	DIESEL ENGINE / DIESEL FIRE PUMP	ASHOK LEYLAND / CUMMINS / KOEL/CATERPILLAR/KIRLOSKAR
3	G.I. AND M.S. PIPES	TATA / JINDAL-HISAR / SAIL
4	FIRE HOSE PIPES / R R.L. HOSE PIPE WITH COUPLING ( GUN METAL / BRASS /SS/ ALUMINIUM)	NEWAGE / MINMAX / TYCO/ EVERS SAFE
5	FIRST AID FIRE HOSE REEL WITH BRACKET, DRUM AND SHUT OFFNOZZLE	NEWAGE / MINMAX / TYCO/ EVERS SAFE
6	G.I. AND M.S. FITTINGS	ZOLOTO/ JAINSON / BHARATFORGE
7	C.I. DOUBLE FLANGED SLUICE / GATE VALVE / NON-RETURN VALVES	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
8	SLIM SEAL BUTTERFLY VALVES (PN- 1.6)	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
9	C. I. BODY BUTTERFLY VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
10	GUN METAL BODY BUTTERFLY VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
11	LANDING VALVE (GUN METAL / BRASS/ SS/ ALUMINIUM	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI
12	ALARM GONG	HD/TYCO/VIKING
13	QB. SPRINKLER	TYCO / NEWAGE/ HD
14	WRAPPING AND COATING	PYPKOTE / RUSTECH / COALTEK
15	FABRICATED FIRE HOSE CABINET	NEWAGE / SAFEGUARD/EVERS SAFE
16	BRANCH PIPE / NOZZLES (GUN METAL/ BRASS / SS / ALUMINIUM)	NEWAGE / SAFEGUARD/EVERS SAFE
17	FIRE EXTINGUISHERS (ALL TYPE)	MINIMAX/CEASE FIRE
18	FIRE BRIGADE CONNECTION	HD/TYCO/VIKING

19	SUCTION STRAINER	AUDCO/ADVACNE/ZOLOTO/NORMEX/TY CO
20	VIBRATION ELIMINATOR CONNECTORS	RESISTOFLEX / DUNLOP /EASYFLEX/ EMERALD
21	SINGLE PHASING PREVENTOR (CURRENT OPERATED)	L&T / SIEMENS / MINILEC
22	FLOW METER	EMERSON/E&H/SIEMENS/JUMO
23	ELECTRICAL SWITCHGEAR & STARTERS	SCHNEIDER/SIEMENS / L&T / ABB
24	FLOW SWITCH	HONEYWELL / SWITZER / JHONSON CONTROL
25	MAIN CONTROL PANEL (POWDER COATED)	SPC ELECTROTECH/SUPER TECH CONTROL / HAVELLS / C&S/ ABB/ SCHNIEDER/L&T
26	PRESSURE SWITCHES	INFOSS / SWITZER/DANFOSS/ VIKING
27	PRESSURE GAUGE	H.GURU / FIEBIG/ Emerald
28	ANNUNCIATION PANEL FOR SPRINKLER SYSTEM	PCD / SAFEWAY / AGNI (INDIA)
29	ALARM VALVE & HYDRAULIC ALARM MOTOR WITH COVERING	MATHER & PLATT / HD
30	THIMBLES / FERRULES (TINNED COPPER)	DOWEL/UTKAL/LUGS INDIA
31	POWER CAPACITOR	L&T/ ASIAN / DUCATTI/ EPCOS
32	ENERGY MEASURING METER (DIGITAL)	L&T / SIEMENS / AE / ENERCON
33	2-WAY INLET BREACHING	NEWAGE / MINMAX/HD/VIKING
34	4-WAY INLET BREACHING	NEWAGE / MINMAX/HD/VIKING
35	GAS FIRE SUPPRESSION SYSTEM	AMEREX/NOHMI/FIRETRACE/Ceasefire/ Minimax GMBH / Rotarex
36	FIRE STOP (FIRE SEALANT)	HILTI/ FISCHER/3M/PROMAT
<b>M</b>	<b>HVAC WORKS</b>	
1	WATER-COOLED Chiller (Compressor to be the same make,Double Screw)	CARRIER/ TRANE/CLIMAVENETA/YORK/DAIKIN
2	PUMP SETS (FOR PRIMARY / SECONDARY CHW PUMPS & CONDENSER WATER PUMPS & HOT WATER PUMPS)	ITT-XYLEM/ARMSTRONG/GRUNDFOSS/KIRL OSKAR
3	VARIABLE SPEED PUMPING STEM.	ITT-XYLEM (e-80ITSC)/ARMSTRONG (DE4300)/GRUNDFOSS (TPE)/ABB
4	Plate type Heat exchanger (PHE)	Alfa laval/ Armstrong/GEA / ITT-Xylem
5	Heat Pumps	CARRIER / DAIKIN/ TRANE/CLIMAVENETA/YORK
6	Dessicant Wheel	DRI / Flakt Woods / Ostberg(Enventus)/BRY AIR
7	Air washer Unit	Edgetech/Humidin / Wave Aircon / Zeco
8	MS Piping	Jindal Hissar/ Sail / Tata Steel

9	Dedicated outdoor air unit	Edgetech/VTS/ZECO/WAVE AIRCON
10	VARIABLE FREQUENCY DRIVE (FOR PUMPS, COOLING TOWER & AHU)	DANFOSS (FC 102) / ABB (ACH 550) / SIEMENS (SINAMICS G120P)/L&T/SCHNEIDER- ALTIVAR 320
11	PRESSURIZED EXPANSION TANK FOR CHILLED WATER & HOT WATER	Reflex/Armstrong/IIT-Xylem/Grundfoss
12	AIR & DIRT SEPARATOR, VACUUM DEGASSER	FLAMCO / SPIROTECH/ARMSTRONG
13	COOLING TOWER	Advance / BELL / PAHARPUR
14	HOT WATER GENERATOR & ULTRASONIC HUMIDIFIER	KEPL / EMERALD / RAPID COOL
15	ELECTROCHEMICAL WATER	ELGRESSY / TERRAGON / ENPAR TECHNOLOGIES
16	AIR HANDLING UNITS	Edgetech/VTS/ZECO/WAVE AIRCON/SYSTEM AIR/FLAKTWOOD
17	PRECISION AIR HANDLING UNITS	Climaveneta(Mitsubishi Electric)/Vertiv/Schneider
18	HEAT / ENERGY RECOVERY WHEEL	DRI / NOVELAIR-SEVCON / OSTBERG/BRY-AIR
19	FAN COIL UNIT WITH AMCA CERTIFIED FAN FOR SOUND & PERFORMANCE	CARRIER/VTS/FLAKTWOOD
20	ARI CERTIFIED COOLING / HEATING COIL (AHU & FCU)	EDGE TECH / VTS/ SYSTEMAIR/FLAKTWOOD
21	AHU FANS (AMCA CERTIFIED FOR SOUND & PERFORMANCE)/ DIDW CENTRIFUGAL FORWARD	KRUGER / SYSTEMAIR/ NICOTRA/Greenheck
22	PLUG FANS	FLAKTWOOD/GREENHECK/KRUGER/LAU
23	Dry Scrubber	Ryder / Trion/ Flanders Air Seal
24	PACKAGED TYPE SCRUBBER	EDGE TECH / SYSTEMAIR/FLAKTWOOD/ ZECO
25	SCRUBBER & AIR-WASHER FANS (AMCA CERTIFIED FOR SOUND & PERFORMANCE) PLUG FAN / DIDW CENTRIFUGAL FORWARD / BACKWARD CURVE	SYSTEMAIR/ NICOTRA/GREEHECK
26	Thermal Insulation	ALP Aeroflex / Armcell / K Flex
27	Acoustic Insulation	ALP Aeroflex / Armcell / K Flex
28	ACOUSTICALLY INSULATED INLINE BOX FANS	SYSTEMAIR/ NICOTRA/GREEHECK
29	AXIAL FAN FOR VENTILATION (AMCA CERTIFIED FOR SOUND & PERFORMANCE)	Greenheck /Nictra / Systemair
30	CENTRIFUGAL FAN FOR VENTILATION (AMCA CERTIFIED FOR SOUND & PERFORMANCE)	Greenheck /Nictra / Systemair
31	PROPELLER FAN	Greenheck /Nictra / Systemair

32	THREE PHASE MOTORS	ABB / CROMTON GREAVES/ SIEMENS
33	THREE PHASE MOTORS (250°C FOR 2 HOURS)	ABB / CROMTON GREAVES/ SIEMENS
34	Y-STRAINER / POT-STRAINER	EMERALD / LEHRY VTM
35	Butterfly Valve with Actuator	Belimo / Honeywell / Johnson Control / Schneider
36	Actuator for valves and Dampers	Belimo / Honeywell / Johnson Control / Schneider
37	Balancing Valve (Manual)	Advance Valve / Danfoss / Honeywell
38	BUTTERFLY VALVE	ADVANCE/TYCO/ L&T/NEWAGE
39	CHECK VALVE	ADVANCE/TYCO/ L&T/NEWAGE
40	AUTOMATIC BALANCING VALVES	DANFOSS / FLOWCON / SIEMENS / ADVANCE- PETTINAROLLI
41	BALANCING CUM 2-WAY MODULATING CONTROL VALVE (SINGLE BODY)	Belimo / Danfoss / Flowcon / Honeywell / Seimens
42	GLOBE / BALL VALVE (WITH OR WITHOUT STRAINER)	Belimo / Danfoss / Flowcon / Honeywell / Seimens
43	AUTO AIR VENT VALVE	RB / Rapid Control
44	PRESSURE GAUGES	FEIBIG / EMERALD / H GURU
45	INDUSTRIAL TYPE THERMOMETER (ALCOHAL FILLED V FORM)	Pioneer / H GURU / Taylor
46	GSS SHEET / GI Sheet	SAIL / TATA / JINDAL
47	ALUMINIUM SHEET	HINDALCO / BALCO / NALCO
48	FACTORY FABRICATED DUCT	Ductofab / Radiant Air System / Rolastar / Zeco
49	INSULATED FLEXIBLE DUCT	CARYAIRE / ATCO / Titus / Seven Star / UP Twiga
50	DUCT / PIPE SUPPORT	HILTI/ FISCHER/UNBRAKO/WUERTH
51	FIRE & SMOKE DAMPER	Greenheck / Ruskin / Systemair / Betec CAD
52	FIRE DAMPER ACTUATOR	BELIMO / SIEMENS / DANFOSS
53	EXTRUDED ALUMINUM GRILLS / DIFFUSERS	AIRFLOW / TROX / DYNACRAFT
54	VARIABLE AIR QUANTITY / INDOOR	CONAIRE / GREENHECK / PARAGON CONTROL
55	AIR QUANTITY UNIT (WIRELESS) VAQ/ IAQ CAV UNIT	CONAIRE / TROX / AIRFLOW
56	FILTERS including HEPA filter plenums / Pre-filter / Micro Vee Filter/ Bag Filter	THERMODYNE / KLENZOID / PUROLATOR / SPECTRUM/ AAF Synder General
57	UV Lamp	Aeropure UV Systems / Arklite / Sterile
58	VIBRATION ISOLATION SPRING	Dunlop / Easy flex / Resistoflex
59	FLEXIBLE PIPE CONNECTOR	Mapro/ Easy Flex / Resistoflex

60	CLOSED CELL FIRE RETARDANT XPE (FOR DUCT INSULATION)	PARAMOUNT / SUPREME / TROCYLENE / A FLEX/ AEROFLEX
61	NITRILE RUBBER INSULATION (FOR PIPE INSULATION)	ARMAFLEX / A FLEX/ AEROFLEX
62	EXPANDED POLYSTYRENE	METTUR BEARDSSELL / STYRENE PACKING / TOSHIBA
63	FIBRE GLASS RIGID BOARD	OWEN CORNING / KIMCO / SIPLA/ SUPREME
64	WELDING RODS	ADVANI / ESAB / VICTOR / ADOR / COSMOS
65	COPPER REFRIGERANT PIPING (With ISI MARK PRINT)	MANDEV/RR GLOBAL/INDIGO/RAJKO/MAXFLOW
66	AIR-CIRCUIT BREAKER	L&T / SIEMENS / SCHENIDER/ABB
67	M.C.C.B.	L&T / SIEMENS / SCHENIDER/ABB
68	MCB	L&T / SIEMENS / SCHENIDER/ABB
69	STARTERS, CONTACTORS, PUSH BUTTONS, OVERLOAD RELAY	L&T / SIEMENS / SCHENIDER/ABB
70	SINGLE PHASE PREVENTER	L&T / SIEMENS / SCHENIDER/ABB
71	CURRENT TRANSFORMER	AE / KAPPA / PRAGATI
72	ROTARY SWITCHES	L&T / SIEMENS / BCH
73	SELECTOR & TOGGLE SWITCH	KAYCEE / L&T / ABB
74	CHANGE OVER SWITCH	HPL/HAGER/GE/SOCOMEK
75	HRC FUSE AND FITTINGS	ABB/L&T/GE / SIEMENS
76	VOLTMETER / AMMETER	A.E. / IMP / ELMEASURE
77	INDICATING LAMPS	SIEMENS / L&T/ ALTOS / SCHENIDER
78	TIME DELAY DEVICE	SIEMENS / L&T/ BCH.
79	UL CERTIFIED AHU UVC / COILOTRON & DUCT MOUNTED UVGI	RUKS / STERIL-AIRE / TRIMMED/ ULTRAFRESH/ ULTRAPURE/ MAGNETO
80	AIR COOLED HI WALL SPLIT UNIT (5 STARAS PER BEE)	HITACHI/MITSHUBISHI/O-GENERAL/ DAIKIN/ CARRIER/VOLTAS
81	AIR COOLED PRECISION AC UNIT	VERTIV/SCHNEIDER/CLIMAVENETA
82	JET VENTILATION FAN FOR BASEMENT CAR PARKING	FLAKTWOODS/KRUGER/NICOTRA- GEBHARDT/Greenheck
83	Grille/dampers	Caryaire/ Ruskin/ Systemair
84	UV Protective coating	Armocell Amicol/Paramount/Polybond
<b>N.</b>	<b>BMS SYSTEM</b>	
1	CENTRAL CONTROL BMS SERVER	HP/DELL/LENOVO
2	PRINTER	HP/CANON/EPSON

3	BUILDING MANAGEMENT SYSTEM	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
4	BUILDING MANAGEMENT WEB BASED SERVER SOFTWARE	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
5	PROGRAMMABLE & APPLICATION SPECIFIER CONTROLLER (DDC)	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
6	ENCLOSURE FOR DDC CONTROLLER	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
<b>O</b>	<b>SENSOR &amp; FIELD DEVICES</b>	
1	IMMERSION TYPE TEMPERATURE SENSORS	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
2	ULTRASONIC BTU METER/FLOW METER	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
3	OUTSIDE T+RH SENSOR	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
4	DIFFERENTIAL PRESSURE SWITCH / SENSOR/ AIR&WATER	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
5	ROOM/DUCT TEMP SENSOR / T+RH SENSOR/CO2 SENSOR	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
6	PRESSURE SENSOR WATER	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
7	IAQ MONITOR/ PM2.5&10/CO SENSOR	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
8	WATER LEVEL SWITCHES	VEKSLER/FLIPRO/DWYER/KELE/SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
9	FLAME PROOF LEVEL TRANSMITTER	VEKSLER/FLIPRO/DWYER/KELE/SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
10	DC VOLTAGE /CURRENT/POWER FACTOR TRANSDUCER	ABB/OMICRON/DWYER/SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
11	CURRENT RELAY	L&T/ABB/DWYER/MECO/SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
12	PH ANALYSER/ TDS ANALYSER	HACH/ABB/OMICRON/SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
13	FCU/AHUVALVES	OVENTROP/T&A/SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
14	THERMOSTAT	DAIKIN/DANFOSS/SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
15	COMPUTER	LENOVO/ HP / DELL
16	COMMUNICATION CABLE	DELTON/TECHNOFLEX/LEGRAND
17	DIGITAL THERMOSTAT / HUMIDISTAT	SIEMENS/HONEYWELL/JOHNSON CONTROL/SCHNEIDER
<b>P</b>	<b>Q-MANAGEMENT SYSTEM (Ancillary)</b>	
1	TOKEN PRINTER (TABLE TOP).	As per Approvaed OEM of Queue Management System
2	LAN BASED MASTER AND SLAVE SOFTWARE	As per Approvaed OEM of Queue Management System

3	LED DISPLAY	As per Approvaed OEM of Queue Management System
<b>Q</b>	<b>PUBLIC ADDRESS SYSTEM</b>	
1	DIGITAL VOICE EVACUATION MASTER CONTROLLER/ROUTER	BOSCH/HEINRICH/HONEYWELL/SENNHEISER
2	TOUCHSCREEN MICROPHONE	BOSCH/HEINRICH/HONEYWELL/SENNHEISER
3	CLASS D AMPLIFIER	BOSCH/HEINRICH/HONEYWELL/SENNHEISER
4	CEILING SPEAKER	BOSCH/HEINRICH/HONEYWELL/SENNHEISER
5	HORN SPEAKER	BOSCH/HEINRICH/HONEYWELL/SENNHEISER
6	SPEAKER CABLE	BELDEN/KRAMER/CRESTRON/EXTRON
<b>R</b>	<b>ACCESS CONTROL SYSTEM</b>	
1	DOOR ACCESS CONTROLLER	HONEYWELL/ TYCO/SIEMENS
2	SMART CARD REDAER	HID/ HONEYWELL/ LENEL/ TYCO/SIEMENS/INVIXIUM
3	BIOMETRIC READERS	LENEL/ TYCO/INVIXIUM/SIEMENS
4	ACCESS CONTROL SOFTWARE	BOSCH/ LENEL/ TYCO/SIEMENS
5	RFID READER	FEIG/ TAG MASTER/ IDCUBE/SIEMENS
6	RFID TAGS	FEIG/ TAG MASTER/ IDCUBE/SIEMENS
7	QR CODE READER	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS
8	DOOR PANEL ENCLOSURE	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS
9	EXIT PUSH BUTTON	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS
10	ELECTRO MAGNETIC LOCK	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS
11	SMART CARD FREQUENCY EXCITATION	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS
12	EMERGENCY GLASS BREAK UNIT	IDCUBE/ HONEYWELL/ LENEL/ TYCO/SIEMENS
<b>S</b>	<b>ACTIVE PASSIVE IT SYSTEM AND IPBX SYSTEM</b>	
1	CATEGORY 6 A CABLE/ PATCH CORD/ I/O / JACK PANEL/PATCH PANEL/ LIU	PANDUIT/COMMSCOPE/ SEIMON/BELDEN
2	FIBER MEDIA CONVERTER/LIU/ JACK PANEL	PANDUIT/ COMMSCOPE/ SEIMON/BELDEN
3	RACK	NETRACK/ RITTAL/ PANDUIT/VALRACK
4	MDF BOX	KRONE/DELTON/BELDEN/ COMMSCOPE/ SEIMON
5	RISER CABLE	KRONE/DELTON/BELDEN/ COMMSCOPE/ SEIMON

6	FIBER RUNNER	PANDUIT/ SEIMON/BELDEN	COMMSCOPE/
7	CORE SWITCH	JUNIPER/CISCO/ARISTA	
8	DISTRIBUTION SWITCH	JUNIPER/CISCO/ARISTA	
9	MANAGEMENT PLATEFORM/ CONTROLLER	JUNIPER/CISCO/ARISTA	
10	WIRELESS INDOOR ACCESS POINT	JUNIPER/CISCO/ARISTA	
11	FIREWALL	JUNIPER/ CISCO/ PALOALTO/FORTINET	
12	INTERNET ROUTER	JUNIPER/ CISCO/HP-ARUBA	
13	WI-FI ROUTER	JUNIPER/ CISCO/HP-ARUBA	
14	WI-FI CONTROLLER	JUNIPER/ CISCO/HP-ARUBA	
15	WI-FI ACCESS POINT	JUNIPER/ CISCO/HP-ARUBA	
16	DIGITAL KEY PHONE	PANASONIC/AVAYA/TADIRAN	
17	IP PHONE	PANASONIC/AVAYA/TADIRAN	
18	ANALOGUE PHONE	PANASONIC/AVAYA/ PROTEL/TADIRAN	BEETEL/
19	EPABX/IP PBX	PANASONIC/AVAYA/TADIRAN	
20	END POINT PROTECTION	TREND MICRO/ NORTON/MACAFEE	QUICKHEAL/
21	CLOUD SERVICE PROVIDER	MICROSOFT/AMAZON/SYNOLOGY	
<b>T</b>	<b>AUDIO VIDEO WORKS</b>		
1	WALL MOUNT AND CEILING LOUDSPEAKERS	BOSE/AUDAC/TOA/YAMAHA/SENNHEISE R	
2	POWER AMPLIFIERS	BOSE/AUDAC/TOA/YAMAHA/SENNHEISE R	
3	Digital Signal Processor with inbuilt Control System	BOSE/AUDAC/TOA/YAMAHA/SENNHEISE R	
4	CEILING TILE MICROPHONE	BOSE/AUDAC/TOA/YAMAHA/SENNHEISE R	
5	WIRELESS HANDHELD/LAPEL MICROPHONE /GOOSENECK MICROPHONE	SENNHEISER/BAYERDYNAMIC/SHURE/R ODE/YAMAHA	
6	CHAIRMAN UNIT	BOSCH/TELEVIC/SHURE	
7	DELEGATE UNIT	BOSCH/TELEVIC/SHURE	
8	CENTRAL CONTROLLER UNIT WITH RECORDING FACILITY	BOSCH/TELEVIC/SHURE	
9	SPEAKER CABLE	KRAMER/EXTRON/CRESTRON/ BELDEN	
10	MICROPHONE CABLE	KRAMER/EXTRON/CRESTRON/ BELDEN	
11	PROJECTORS	CHRISTIE/BARCO/SONY/PANASONIC	
12	MOTORIZED PROJECTION SCREEN	SUDPI/SUVIRA/LIBERT AV/ DALITE	
13	CABLE CUBBY	LOGIC/KRAMER/EXTRON	

14	PODIUM	AHA/TECOM/PEOPLELINK/GLOBUS
15	IP PTZ CAMERA(FOR CONFERENCING PURPOSE)	LUMENS/VADDIO/PANASONIC/SONY/BARCO
16	RECORDING, STREAMING & WEBCASTING DEVICE	LUMENS/VADDIO/PANASONIC/SONY/BARCO
17	JOYSTICK	LUMENS/VADDIO/PANASONIC/SONY/BARCO
18	VIDEO CONFERENCING SYSTEM	CISCO/BARCO/ LUMENS/POLYCOM
19	HDMI MATRIX SWITCHER	KRAMER/EXTRON/CRESTRON/ BELDEN
20	WIRELESS PRESENTATION SYSTEM	BARCO/POLYCOM/CISCO
21	HDMI TRANSMITTER & RECEIVER	KRAMER/EXTRON/CRESTRON/BELDEN
22	CONTROL SYSTEM	KRAMER/EXTRON/CRESTRON/APPLE
23	TOUCH PANEL	HP/SAMSUNG/DELTA/PANASONIC
24	HDMI CABLE.	KRAMER/EXTRON/CRESTRON/ BELDEN
25	EQUIPMENT RACK	NETRACK/ RITTAL / VALRACK
26	Cat6A Cables	PANDUIT/COMMSCOPE/ SEIMON/BELDEN
	PLUMBING SYSTEM	
1	VITREOUS CHINA SANITARYWARE	PARRYWARE/JAQUAR/HINDWARE/CERA /EQUIVALENT
2	PLASTIC W.C.SEATS & COVERS	PARRYWARE/JAQUAR/HINDWARE/CERA /EQUIVALENT
3	C.P. FITTINGS:	PARRYWARE/JAQUAR/HINDWARE/CERA /EQUIVALENT
4	AUTOMATIC WATER TAPS, AUTOMATIC URINAL FLUSHING	PARRYWARE/JAQUAR/HINDWARE/CERA /EQUIVALENT
5	TOWEL RING, TOWEL ROD, TOWEL RACK, COAT HOOK ETC. (304 GRADE S.S.)	PARRYWARE/JAQUAR/HINDWARE/CERA /EQUIVALENT
6	CHROMIUM PLATED / STAINLESS STEEL / POLY VENIEL CHLORIDE GRATING	KOHLER/GROHE/ROCA/JAQUAR/CERA/E QUIVALENT
7	PH TOILET ONLY	HINDWARE/CERA/PARRYWARE/EQUIVA LENT
8	STAINLESS STEEL SINK	JAYNA /NIRALI/NEELKANT/KINGSTON/EQUIVA LENT
9	G.I. & M.S. PIPES PART-I IS: 1239 UPTO 150 MM AND M.S. PIPES PART-II IS: 3589 ABOVE 150 MM	TATA STEEL (TUBE DIVISION)/JINDAL HISAR/SAIL/EQUIVALENT
10	G.I. AND M.S. FITTINGS	UNIK/ ZOLOTO / JAINSON / BHARATFORGE/EQUIVALENT
11	PVC PIPES & FITTINGS	ASTRAL/FINOLEX INDUSTRIES/AKG/SUPREME/ASHIRBAD/ ORIPLAST/ FLOWKEM/EQUIVALENT

12	UPVC PIPES & FITTINGS	ASTRAL/FINOLEX INDUSTRIES/AKG/SUPREME/ASHIRBAD/ ORIPLAST/ FLOWKEM/EQUIVALENT
13	CPVC PIPES & FITTINGS	ASTRAL/FINOLEX INDUSTRIES/AKG/SUPREME/ASHIRBAD/ ORIPLAST/ FLOWKEM/EQUIVALENT
14	SWR PIPES & FITTINGS	ASTRAL/FINOLEX INDUSTRIES/AKG/SUPREME/ASHIRBAD/ ORIPLAST/ FLOWKEM/EQUIVALENT
15	HDPE PIPE & FITTINGS (For Soil & Waste Dual Stack system)	GABERIT/FLOWKEM/ACO/EQUIVALENT
16	R.C.C. PIPES (NP2,NP3,NP4)	PRAGATI CONCRETE UDYOG/ K.K. SPUN PIPES/ J. K. SPUN PIPES/SOOD &SOOD/HUME /EQUIVALENT
17	WATER TANK (ISI MARK)	ASTRAL/FINOLEX INDUSTRIES/AKG/ SUPREME/SYNTAX/EQUIVALENT
18	FORGED BRASS BALL VALVE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
19	F.B. MULTI UTILITY CHECK VALVE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
20	F.B. AIR VENT	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
21	F.B.P.R.V.	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
22	FLOAT VALVE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
23	C.I, SLUICE VALVE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/KIRLOSKAR/Lauritz Knudsen/EQUIVALENT
24	C.I. BUTTER FLY	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/KIRLOSKAR/Lauritz Knudsen/EQUIVALENT
25	C.I.NRV REFLUX	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/Lauritz Knudsen/EQUIVALENT
26	C.I. DUAL PLATE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/Lauritz Knudsen/EQUIVALENT
27	D.I. WAFER TYPE CHECK VALVE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/Lauritz Knudsen/EQUIVALENT
28	C.I. Y TYPE STRAINER	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
29	C.I. DOUBLE ACTING AIR VALVE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/KIRLOSKAR/EQUIVALENT
30	FOOT VALVE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
31	REST ALL TYPE OF VALVE	ZOOTO/ ADVANCE/ SANT / KARTAR / CRI/Lauritz Knudsen/EQUIVALENT
32	HAND DRIER (304 GRADE S.S.)	EURONICS/GROHE/KOHLAR/DURAVIT/E QUIVALENT
33	LIQUID SOAP DISPENSER (304 GRADE S.S.)	EURONICS/BOBRIC/SLOAN/PRESTIGE/NI RALI/EQUIVALENT
34	STORAGE TYPE WATERHEATER (5 STAR RATED)	RACOLD/ CROMPTON/ JAQUAR/HAVELLS/EQUIVALENT

35	INSULATION	THERMAFLEX / AEROFLEX / K FLEX/ A-FLEX/EQUIVALENT
36	SOLAR HOT WATER EQUIPMENT	TATA SOLAR/ SOLAHART/GREENTEK/EQUIVALENT
37	PVC FOOT REST & SFRC COVERS	KGM/ Patel / Pranali Industries/EQUIVALENT
38	STAINLESS STEEL PIPES & 316L	INOX-KANTHERM/ CONEX BÄNNINGER/ VIEGA/ AQUNIOX/VSH/EQUIVALENT
39	FRP Manholes Covers	EVERLAST/THERMO SET/RX/EQUIVALENT
40	PRESSURE RELIEF VALVES	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
41	PRESSURE REDUCING VALVES	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
K	PUMPS AND EQUIPMENTS	
1	WATER TRANSFER PUMPS	WILO/GROUNDFOS/KIRLOSKAR/CROMPTON/EQUIVALENT
2	IRRIGATION PUMP	WILO/GROUNDFOS/KIRLOSKAR/CROMPTON/EQUIVALENT
3	SUMP PUMP	WILO/GROUNDFOS/KIRLOSKAR/CROMPTON/EQUIVALENT
4	WATER LEVEL INDICATOR	MINILEC/AUTOPUMP/TECHNIKA/Elegant Controls/EQUIVALENT
5	WATER LEVEL CONTROLLER	MINILEC/AUTOPUMP/TECHNIKA/Elegant Controls/EQUIVALENT
6	ELECTRONIC SENSING PROBE	MINILEC/AUTOPUMP/TECHNIKA/Elegant Controls/EQUIVALENT
7	WATER METER	CRESENT/ KRANTI/KENT/KAPSTAN/WIKA/EQUIVALENT
8	SOUNDER PATTERN VALVE FOR FILTER AND SOFTENER	LABLINE/ AIP (AGRICULTURE AND INDUSTRIAL PUMPS)/EQUIVALENT
9	PRESSURE GAUGE	FIEBIG/EMERALD/WIKA/EQUIVALENT
10	ELECTRICAL PANEL (TTA PANEL)	SIEMENS/SCHNEIDER/Lauritz Knudsen/ABB/SUPER TECH CONTROL/EQUIVALENT
11	NON-RETURN VALVE (65MM DIA & ABOVE)	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/EQUIVALENT
12	BUTTERFLY VALVE (LEVER TYPE)	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/AUDCO/DANFOS/EQUIVALENT
13	BUTTERFLY VALVE (GEAR TYPE)	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/AUDCO/DANFOS/EQUIVALENT
14	MOTORIZED VALVE	ZOLOTO/ ADVANCE/ SANT / KARTAR / CRI/AUDCO/DANFOS/EQUIVALENT
15	VIBRATION PAD	RESISTOFLEX/ EASYFLEX/DULOP/EMERALD/EQUIVALENT
16	VIBRATION ELIMINATOR	RESISTOFLEX/ EASYFLEX/DULOP/EMERALD/EQUIVALENT

17	Booster Pumps	Grundfos / Wilo-Mather & Platt/KIRLOSKAR/EQUIVALENT
18	Self-Priming Pumps	WILO/GROUNDFOS/KIRLOSKAR/CROMPTON/EQUIVALENT

**\*Any product for which the approved make is not given in the above list or bill of materials may be used with due approval from the Engineer in-charge.**

**N.B: - Make specified in the “List of Approved Make’ is preferred. However, a higher or equivalent make could be selected after obtaining prior approval of Engineer-in-Charge in writing.**

## SECTION - 9

<b>PAYMENT SCHEDULE</b>			
<b>Construction of School Buildings under Godabarisha Mishra Adarsha Prathamika Vidyalaya Scheme at Pandua (Model-1) &amp; at Madanpur (Model-1)</b>			
	<b>TOTAL AMOUNT</b>		
<b>SL NO</b>	<b>ACTIVITY</b>	<b>Minimum Indicative Quantities</b>	<b>PAYMENT AS % OF AGREEMENT COST</b>
<b>1.0</b>	<b>DESIGN STAGE</b>		
<b>1.1</b>	On approval of Inception Report, detail survey and draft architectural drawing & QMP		0.50%
<b>1.2</b>	On approval of Site development plan and architectural drawing		0.50%
<b>1.3</b>	On approval of MEP		0.50%
<b>1.4</b>	On approval of final Architectural drawing showing electrical and sanitary layout plan and detail structural design and interior design/decoration		0.50%
	<b>TOTAL</b>		<b>2.00%</b>
<b>2</b>	<b>Construction Stage</b>		
<b>A</b>	<b>Madanpur</b>		<b>43.79%</b>
<b>i</b>	<b>Civil Work</b>		<b>34.87%</b>
a	On Completion of foundation upto plinth level	30.00%	10.46%
b	On completion of super structure RCC & including Head Room	20.00%	6.97%
c	On completion of Brick work & Parapet	20.00%	6.97%
d	On Completion of Internal & External Plaster & Painting.	20.00%	6.97%
e	On Completion of flooring	5.00%	1.74%
f	On Completion of doors, windows, ventilators, railing etc.	5.00%	1.74%
<b>ii</b>	<b>M.E.P.Services</b>		<b>6.97%</b>
a	On completion of PH Internal	25.00%	1.74%
b	On completion of PH External	15.00%	1.05%
c	On Completion of Internal Electrical in all respect complete as per scope	35.00%	2.44%
d	On Completion of External Electrical in all respect complete as per scope	10.00%	0.70%
e	On Completion of Fire Fighting in all respect complete as per scope	5.00%	0.35%

f	On Completion of HVAC as per scope	10.00%	0.70%
<b>iii</b>	<b>Infrastructure /Site Development</b>		<b>1.95%</b>
a	BoundaryWall & Main Gate		0.94%
b	Barbed Wire Fencing		0.29%
c	Approach Road & Parking		0.29%
d	Landscaping & Horticulture		0.43%
	<b>Pandua</b>		<b>51.21%</b>
<b>i</b>	<b>Civil Work</b>		<b>34.87%</b>
a	On Completion of foundation upto plinth level	30.00%	10.46%
b	On completion of super structure RCC & including Head Room	20.00%	6.97%
c	On completion of Brick work & Parapet	20.00%	6.97%
d	On Completion of Internal & External Plaster & Painting.	20.00%	6.97%
e	On Completion of flooring	5.00%	1.74%
f	On Completion of doors, windows, ventilators, railing etc.	5.00%	1.74%
<b>ii</b>	<b>M.E.P.Services</b>		<b>10.00%</b>
a	On completion of PH Internal		3.15%
b	On completion of Internal Electrical Works		3.15%
c	External Water Supply & Swerage System		0.80%
d	Rain Water Harvesting		0.47%
e	Fire Figthing (Extinguishers)		0.18%
f	External Electrification (Transformer)		0.59%
g	External Illumination		0.70%
h	Ongrid Solar		0.26%
i	HVAC		0.70%
<b>iii</b>	<b>Infrastructure /Site Development</b>		<b>6.34%</b>
a	BoundaryWall & Main Gate		2.12%
b	Barbed Wire Fencing		0.94%
c	Approach Road & Parking		0.94%
d	Walkway/Pathway		0.47%
e	Landscaping & Horticulture		0.44%

f	Signage & Garbage Disposal		0.19%
g	Bust size Statue & Pedestal		0.29%
h	Play Area Development		0.95%
	<b>TOTAL</b>		<b>95.00%</b>
<b>15</b>	<b>ACCEPTANCE STAGE</b>		
	Final approval from competent authority viz. development authority and 3-Star GRIHA rating, testing, commissioning with approval from authority like fire officer and completion of all items as per approval.		2.50%
	On submission of As-Built drawings and other documents as mentioned in Contract Data		0.50%
	<b>TOTAL</b>		<b>3.00%</b>
	<b>G TOTAL</b>		<b>100.00%</b>

## SECTION –10

### DOCUMENTS TO BE FURNISHED BY BIDDER

1. Documents as specified in Section 1 must be submitted by the Bidder in the Formats mentioned in Section 2 along with the BID.
2. Any other document, if asked by the Employer for clarification during evaluation, shall be submitted by the bidder.

#### CHECKLIST OF DOCUMENTS TO BE SUBMITTED IN TECHNICAL BID

	Criteria	Document to be submitted	Submitted (Yes/No)
1	Contractor's Bid	As per format provided at Sl. No. 1, Section-2	
2	Bid Processing Fees	Scanned copy of BG	
3	EMD/ Bid Security -	Scanned copy of DD	
4	Written power of attorney of the signatory of the Bid to commit the Bidder	Copy of power of attorney	
5	Whether Indian firms (Y/N)	Certificate of Incorporation	
6	Class of Contractor – ‘A’ or ‘Special’ Class (Government of Odisha) Registration) or equivalent of other State Governments / Government of India / MES / Railways for execution of Civil works in general and Road, Bridge & Building work in particular	Relevant Certificate	
7	Constitution or legal status of Bidder	Incorporation Certificate, Partnership Deed, Trade License, MoA, AoA	
8	Place of registration	Qualification Information	
9	Principal place of business	Qualification Information	
10	Major items of construction equipment proposed to carry out the Contract	Invoices of equipment / Lease agreement	
11	Qualifications and experience of key site management and technical personnel proposed for the Contract	Detailed CV	
12	Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five financial years	CA Certificate along with Audited Financial report for the relevant Financial Years	

13	Evidence of adequacy of working capital for this contract [access to line (s) of credit and availability of other financial resources]; Liquid assets and / or availability of credit facilities	Banker's certificate	
14	Authority to seek references from the Bidder's bankers	Bankers Details	
15	Information regarding any litigation or arbitration resulting from contracts executed by the bidder in the last five years or currently under execution	List of Litigation, if any	
16	Methodology & Programme.	To be submitted in Cover-III as DBR	
17	Bids from Joint venture - Bids from Joint ventures/ Consortiums /Association of Parties are not acceptable	To be mentioned	
18	Annual minimum turnover	Turnover from Civil Construction works certified by chartered accountant	
19	The Firm should demonstrate making profit	CA/ Statutory auditor certificate	
20	Should have valid PAN and GSTIN	Scan copy of valid PAN and GSTIN	
21	Experience of successful completion of works / substantial completion of works (90% of the value of the contract to be considered as substantial completion) as referred to in Bid Data Sheet Cl. 4.4.A(b).	Completion Certificate from Competent Authority mentioning all the details as per Bid Data Sheet/TDS Certificate for Pvt Sector Project	
22	Bid Validity Undertaking	Undertaking	
23	Affidavit	Affidavit by the bidder duly signed by the Notary Public and as specified in Section 2,	
24	Design Basis Report	As mentioned in the RFP	
25	Certificate of No Relationships	As per format given in Section-2 of the tender document	
26	Information Regarding Any Conflicting Activities and Declaration Thereof	As per format given in Section-2 of the tender document	
27	Proposal for Sub-Contract	To be mentioned	

Total 193 (One Hundred Ninety Three) pages only.

**APPROVED**  
Sd/-  
Chief General Manager-III