

NIT No: **BSCL/School/2021/54**

Date: **27.04.2021**

## **Notice Inviting Short Term E-Tender**

**Work Descriptions:** Request for Proposal for Modernisation of Schools with 5 (five) Years Operation & Maintenance under Smart City Mission on Item Rate Contract in Bhagalpur, Bihar.

Estimated Cost (In Rs.): Rs.6,33,86,295/- (Rupees Six Crore Thirty-Three Lakhs Eighty-Six Thousand Two Hundred Ninety Five only) inclusive of all taxes and GST.

Tender Processing Fee: As per e-proc norms <https://www.eproc2.bihar.gov.in>

Tender Documents fee (In Rs.): 25,000/- (Twenty-five thousand only).

Earnest Money Deposit (In Rs.): 12,67,750/- (Twelve lakh sixty seven thousand seven hundred and fifty only).

### **Tender Schedule:**

Sr. No.	Activity	Date and Time
1	Bid Submission Due Date <a href="https://eproc2.bihar.gov.in/">https://eproc2.bihar.gov.in/</a>	19-05-2021 11:00 PM
2	Bid Open Date <a href="https://eproc2.bihar.gov.in/">https://eproc2.bihar.gov.in/</a>	21-05-2021 04:00 PM
3	Submission end date of hard copy/ Physical documents mentioned in RFP. Address: Chief Executive Officer, Bhagalpur Smart City Limited, Swami Vivekanand Path, Near Ghuran Peer Baba Chowk, Bhagalpur – 812001.	21-05-2021 03:00 PM
4	Prebid Meeting Start Date. Venue Details: Conference Hall, Bhagalpur Smart City Limited.	04-05-2021 11:45 AM
5	Prebid Meeting End Date.	04-05-2021 01:00 PM
6	Prebid Query Submission end date and time. Email: <a href="mailto:info@smartcitybhagalpur.org">info@smartcitybhagalpur.org</a>	04-05-2021 10:00 AM

**Note:** NIT, RFP, Corrigendum (if any) etc. are also available on Company website <http://www.smartcitybhagalpur.org> for reference purposes only.

  
**Chief Executive Officer,**  
Bhagalpur Smart City Limited.



## **Request For Proposal (RFP)**

**For**

**MODERNISATION OF SCHOOLS IN BHAGALPUR, BIHAR, WITH 5 YEARS  
OPERATION & MAINTENANCE.**

**Under**

**SMART CITY MISSION (SCM) ON ITEM RATE  
CONTRACT  
in Bhagalpur, Bihar.**

**Issued By:**

**Chief Executive Officer(CEO),**

**Bhagalpur Smart City Limited**

## **DISCLAIMER**

The information contained in this Request for Proposal (“RFP”) document or subsequently provided to bidders, verbally or in documentary or any other form by or on behalf of the Bhagalpur Smart City Limited (here forth referred to as BSCL in this document) or any of its employees or advisers, is provided to bidders on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is not an invitation by the Employer to the prospective Consultants or any other person. The purpose of this RFP is to provide interested bidders with information that may be useful to them in the formulation of their Proposals pursuant to this RFP.

This RFP includes statements, which reflect various assumptions and assessments arrived at by the Employer in relation to the Consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Employer, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources. Information provided in this RFP to the bidder (consultant/contractor/developer/manufacturer/supplier etc.) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law.

The Employer accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.

The BSCL and its employees and advisers make no representation or warranty and shall have no liability to any person including any bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

The BSCL also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any bidder upon the statements contained in this RFP. The BSCL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP. The issue of this RFP does not imply that the Employer is bound to select a bidder or to appoint the selected bidder, as the case may be, for the Consultancy and the BSCL reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The bidder shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the BSCL or any other costs incurred in connection with or relating to its Proposal.

All such costs and expenses will remain with the bidder and the BSCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a bidder in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process.

Sd/

**Chief Executive Officer (CEO),**  
Bhagalpur Smart City Limited

**INSTRUCTIONS TO BIDDERS  
AND  
QUALIFICATION INFORMATION**

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## **VOLUME-I**

### **SECTION-1**

#### **INVITATION FOR BID (IFB)**

NIT No:		BSCL/School/2021/54
1.	(a) Name of the work	Modernisation of Schools in Bhagalpur, Bihar with 5 (five) years operation & maintenance Under Smart City Mission (SCM) on Item Rate Contract.
	(b) Scope of Work	<p><b>Retrofitting/Renovation of Schools:</b></p> <ol style="list-style-type: none"> <li>1) Repairing of Doors and windows</li> <li>2) Exterior and Interior paint works</li> <li>3) Water proofing treatment of roof</li> <li>4) Carrying out entire new electrical wiring and fitting</li> <li>5) Repair of main entrance gate</li> <li>6) Landscaping in open spaces</li> <li>7) Installation of CCTV surveillance system</li> <li>8) IPS flooring in classes and Corridors</li> <li>9) Furnishing school with newly procured desk, tables.</li> </ol> <p><b>Operation &amp; Maintenance period:-</b>  <u>The Broad Scope of services required as below: -</u></p> <ol style="list-style-type: none"> <li>a. Operation and Maintenance of all equipment's,</li> <li>b. Housekeeping and Sanitation services,</li> <li>c. Horticulture and Plantation,</li> <li>d. Collection and disposal of waste to nearest Municipal collection center.</li> <li>e. Pest control as appropriate,</li> <li>f. Yearly painting of building premises,</li> <li>g. Maintaining a high standard of cleanliness and hygiene in the school.</li> <li>h. Carrying out periodic preventive maintenance of the School Infrastructure</li> <li>i. Undertaking routine maintenance including prompt repairs of the school infrastructure</li> <li>j. Undertaking major maintenance such as renovation of the school infrastructure, repair or replacement of furniture, teaching aids, equipment and other facilities and amenities of the school.</li> <li>k. Maintaining the class rooms, laboratories, library and other facilities and amenities in the school in accordance with the provisions of this Agreement</li> </ol>
2.	Mode of Bid Submission	e-tendering ( <a href="http://www.eproc2.bihar.gov.in">http://www.eproc2.bihar.gov.in</a> )
3.	Estimated Cost (Rs.)	<b>Rs.6,33,86,295/- (Rupees Six Crore Thirty-Three Lakhs Eighty-Six Thousand Two Hundred and Ninety Five) only</b>



4.	Online Tender Fee	<a href="https://www.eproc2.bihar.gov.in/">https://www.eproc2.bihar.gov.in/</a>	
5.	EMD/Bid Security	As per NIT. (The EMD/Bid Security should be submitted through Internet Payment Gateway (IPG) / Challan / Bank Guarantee. Bank Guarantee shall be drawn in favour of “Chief Executive Officer, Bhagalpur Smart City Limited”.)	
6.	Tender Document Fee	As per NIT	
7.	Date / Time of Publication of T Website	As per NIT	
8.	Last Date / Time of for Bid Submission	As per NIT	
9.	Last Date / Time of Submission of Tender Fee & EMD	As per NIT	
10.	Date of Bid Opening	As per NIT	
11.	Bid Submission Address	Bhagalpur Smart City Limited, Municipal Corporation, Court Compound, Bhagalpur – 812001	

**Note: Only e-Tenders shall be accepted.**

Further details are available on Bihar Government e-Procurement website and select Bhagalpur Smart City and can be seen on the website <http://www.eproc2.bihar.gov.in>

Sd/-

**Chief Executive Officer (CEO),**  
Bhagalpur Smart City Limited

## **Instructions to Bidders for Online Submission of Bids**

Detailed instructions & documents to be furnished for online bidding:

1. Guidelines for online submission of bids can be downloaded from the website <http://www.eproc2.bihar.gov.in>
2. Bidders in order to participate in the online bidding process have to get 'Digital Signature Certificate (DSC)' as per Information Technology Act-2000. This Certificate will be required for digitally signing the bid. Bidders can get the above-mentioned digital signature certificate from any vendor approved by Controller of Certifying Authorities (CCA). Bidders, who already possess valid Digital Certificates, need not procure new Digital Certificate.
3. Bidders should submit their bids online in electronic format with digital signature. Bids without Digital Signature will not be accepted. No proposal will be accepted in physical form.
4. Bids will be opened online as per time schedule mentioned in the Invitation for Bids (IFB).
5. Bidders should be ready with the scanned copies of cost of documents & bid security as specified in the tender document. Before submission of bids online, bidders must ensure that scanned copies of all the necessary documents have been attached with the bid.
6. Bidders should produce original Demand Draft/Bank Guarantee towards tender fee & bid security as mentioned in the Invitation for Bids (IFB) to the BSCL, Bhagalpur office during the period & time as mentioned in the IFB, failing which bid will not be accepted. The details of cost of documents, bid security specified in the tender documents should be the same as submitted online (scanned copies), otherwise bid will summarily be rejected.
7. The Department will not be responsible for delay in online submission of bids due to any reason, whatsoever.
8. All required information for bid must be filled and submitted online.
9. Other details can be seen in the bid documents.
10. Only online withdrawal or modification of bids, if any, in pursuance of relevant clauses of the (Standard Bidding Document) SBD is acceptable.
11. Details of documents to be furnished for online bidding:  
(Scanned copies of the following documents to be up-loaded in pdf format on the website <https://www.eproc2.bihar.gov.in> in technical bid folder).
  - i. Demand Draft towards Tender fee.
  - ii. Bid security (Bank Guarantee) in the form specified in Section-10 of SBD.
  - iii. Qualification information and supporting documents, as specified in Section-3. of RFP.
  - iv. Certificates, undertakings, affidavits as specified in Section-3 of RFP.

- v. Any other information pursuant to Clause-4.3 of Section-2ITB.
  - vi. Undertakings that the bid shall remain valid for the period specified in Clause-15.1 of Section-2 ITB.
12. Scanned copies of the following documents are required to be uploaded on the website <http://www.eproc2.bihar.gov.in> in financial bid folder:
- i. Form of bid as specified in Section-8 of RFP in pdf format.
  - ii. Duly filled Price Bid.
13. Uploaded documents of successful bidder will be verified with the original before signing of the agreement. The successful bidder should provide the originals to the concerned authority on receipt of such a letter in this regard, which will be sent through registered post or speed post or by e-mail or delivered by hand.
14. Each uploading shall be digitally signed by the bidder.
15. For rates quoted below the estimated cost, additional performance guarantee shall be deposited by the tenderer as per conditions of bid document and government circulars at the time of agreement.

Sd/-  
**Chief Executive Officer (CEO),**  
Bhagalpur Smart City Limited.

**INVITATION FOR BIDS (IFB)**  
**NATIONAL COMPETITIVE BIDDING**

**NIT No. BSCL/School/2021/54**

The undersigned, on behalf of the BSCL, Bhagalpur invites Item rate bids for the work mentioned in table below through e-Procurement from eligible Contractors, registered in appropriate class with Central/State Govt. Departments/CPSU/CPSE/State PSU's/Autonomous Bodies, Govt. of Bihar/Govt. of India or an entity incorporated under Indian Companies act or any appropriate law engaged in the construction of Building projects or any public sector undertaking either of central or of state engaged in construction activities specially building works can also participate. The bid shall be submitted online in the website <http://www.eproc2.bihar.gov.in>. The bidder(s) should have necessary portal enrolment with their own Digital Signature Certificate:

Sl. No.	Name of the work	Estimated Cost(Rs.) Inclusive of all taxes and GST.	Bid Security* (Rs.)	Cost of Document	Period of Completion
1	2	3	4	5	6
1	Modernisation Of Schools with 5 (five) years operation & maintenance Under Smart City Mission (SCM) on Item Rate Contract Bhagalpur, Bihar	<b>Rs.6,33,86,295/- (Rupees Six Crore Thirty Three Lakhs Eighty-Six Thousand Two Hundred and Ninety Five only)</b>	As per NIT	As per NIT	12 Months

## **Scope of work:**

**1.0** Modernization of Schools with 5 (five) years operation & maintenance Under Smart City Mission (SCM) on Item Rate Contract in Bhagalpur, Bihar. Scope of work not limited to include the following:

### **(C) Retrofitting/Renovation of Schools:**

- l.** Repairing of Doors and windows
- m.** Exterior and Interior paint works
- n.** Water proofing treatment of roof
- o.** Carrying out entire new electrical wiring and fitting
- p.** Repair of main entrance gate
- q.** Landscaping in open spaces
- r.** Installation of CCTV surveillance system
- s.** IPS flooring in classes and Corridors
- t.** Furnishing school with newly procured desk, tables.

### **(D) Operation & Maintenance: -**

The Broad Scope of services required as below: -

- a. Operation and Maintenance of all equipment's,
- b. Housekeeping and Sanitation services,
- c. Horticulture and Plantation,
- d. Collection and disposal of waste to nearest municipal collection center,
- e. Pest control as appropriate,
- f. Yearly painting of building premises,
- g. Maintaining a high standard of cleanliness and hygiene in the school.
- h. Carrying out periodic preventive maintenance of the School Infrastructure
- i. Undertaking routine maintenance including prompt repairs of the school infrastructure
- j. Undertaking major maintenance such as renovation of the school infrastructure, repair or replacement of furniture, teaching aids, equipment and other facilities and amenities of the school.
- k. Maintaining the class rooms, laboratories, library and other facilities and amenities in the school in accordance with the provisions of this Agreement

**Note: -**

Operation & Maintenance Running Account Bill will be paid after verification and duly certification by Authority Engineer/Engineer In Charge.

For detailed Architectural design and drawings, Structural design and Drawings, Electrical layout plans, working drawings, Plumbing layout plans and other concerned design and execution drawings please refer to Volume IV, Section II, Drawings.

## **1.1 INTRODUCTION**

## **1.2 About BSCL**

Bhagalpur Smart City Limited (BSCL) is the special purpose vehicle created under the Bhagalpur Municipal Corporation to deliver several Pan City and Area Based Development initiatives with a focus on both infrastructure and ICT advancements in the city and at strategic locations.

## **1.3 Introduction to Bhagalpur Smart City Project**

The Ministry of Housing and Urban Affairs (MoHUA), Government of India (GoI) has initiated Smart Cities Mission (SCM), under which selected cities will be developed as smart cities with a focus on improving citizen services with ICT intervention. Smart Cities Mission is an urban renewal and retrofitting programme by the Government of India with a mission to develop 100 cities all over the country making them citizen friendly, sustainable and investment destination. Under the Smart City Scheme, Government has emphasized to improve the basic civic amenities of the cities on one hand and the provision of modern technological advances for ease of living on the other hand.

The Smart City Proposal for Bhagalpur envisions to implementing a number of projects categorized into Area Based Development (ABD) projects and Pan City components. The ABD projects focuses on physical infrastructure components, whereas the Pan City components focuses on the ICT interventions in the city. To achieve Bhagalpur's vision for a smart city, large numbers of measures are required to be implemented. Considering the priorities echoed by city stakeholders during the consultative process and practical feasibility, the main project umbrella initiatives shortlisted are:

- SUSHASIT BHAGALPUR (Smart and Quality Governance)
- SAMRUDH BHAGALPUR (Promoting Tourism in Silk City of India)
- GATIMAAN BHAGALPUR (Enhanced public transport)
- SUDRID BHAGALPUR (A well-functioning, smart, and efficient city)
- SARVABHOUMIKVIKAS (Socially Inclusive Growth)

To bridge the gap and provide a society in line with the vision of inclusive growth the Smart City mission has been launched in India. The purpose of the Smart Cities Mission is to drive economic growth and improve the quality of life of people by enabling local area development and harnessing technology, especially technology that leads to Smart outcomes. Area based development will transform existing areas (retrofitting and redevelopment), including slums into better planned ones, thereby improving livability of the whole City. New areas (Greenfield) will be developed around city to accommodate the expanding population in urban areas. Pan-city development is oriented towards application of selected Smart Solutions to the existing city-wide infrastructure. Application of Smart Solutions will involve the use of technology, information and data to

make infrastructure and services better and be fitting with demand coming up in the next decades.

### **SUSHAASIT BHAGALPUR**

Bhagalpur Municipal Corporation recognizes the importance of addressing the needs of a growing population and an expanding city. It would strive to make Bhagalpur ‘a city for people’ where continuous engagement of local government with citizens is institutionalized in the decision-making architecture. It would provide safe, accessible, and lively public spaces the city living experience and the river bank. Bhagalpur Municipal Corporation is committed to excellence in every sector, providing its staff opportunities of growth by learning and adopting state of the art technologies and methods to better their performance in every way. Its goal is to become financially self-sufficient and sustainable moving towards increased private investments and partnerships.

### **SAMRUDH BHAGALPUR**

Promoting Tourism in Silk City of India: A historically and culturally significant city with ever- growing number of visitors, Bhagalpur Municipal Corporation is committed to preserve and promote its multi-faceted built heritage ranging from ancient Hindu rock-cut sculptures to Jain pilgrimage sites to archaeological remains of one of the biggest universities of Buddhist times to architecture from Mughal and British periods. Bhagalpur’s identity and image as a culturally and historically significant place will be promoted on regional, national and international level. The city will support regular religious festivals and celebrations and also design new city level events for residents and tourists. Bhagalpur will be the most visited place in Bihar in the years to come.

### **GATIMAAN BHAGALPUR**

A well-connected city with enhanced public transport, BMC will develop multi-modal transport system and provide more intra and inter-city roadways and buses to ease people’s arrival to the city. It will improve vehicular movement and decongest roads. It will encourage NMT and pedestrian safety. Intelligent Transport System to be adopted to improve mobility especially of public transport and IPT. The city will have greens links connecting places of different land use to enhance walk-ability.

### **SUDRID BHAGALPUR**

A well-functioning, smart, and efficient city: Bhagalpur Municipal Corporation recognizes the current gaps in services especially Water supply, sanitation, SWM, and public transport. For a smoothly functioning city, new technology and ICT will be adopted. The power infrastructure will be robust and promote energy efficiency and use of renewable energy. The sub-goals are –

(i) Bhagalpur will not stop moving due to traffic jams; (ii) every resident and visitor to Bhagalpur will have access to clean drinking water; (iii) All streets will be clean and municipal waste will be treated and disposed scientifically; (iv) Every household will be connected to a functional sanitation system; (v) city will have robust IT enabled infrastructure; (vi) All power cables to be underground.

## **SARVABHOUMIKVIKAS**

Socially Inclusive Growth: Bhagalpur will be more sensitive towards social infrastructure by improving quality of Health, Education, and Safety. All sections of society of Bhagalpur especially the old, children and differently-able will be taken care of in design and development of projects. The city will put in efforts to alleviate urban poverty and increase livelihood opportunities. The city will provide livable conditions for slum dwellers by up gradation of physical infrastructure. The informal sector will be regularized by providing basic infrastructure and facilities and formal vending zones.

2. Period of availability of tenders online/date & time of bidding on-line/last date of seeking clarification/date of opening of tender papers are as given below–

Sl. No.	Procurement Officer	Place of Opening	Availability of tender on- line for bidding		Date & Time of opening of technical bid
			From	To	
1	2	3	4	5	6
1	Chief Executive Officer (CEO),	Bhagalpur Smart City Limited, Municipal Corporation, Court Compound, Bhagalpur -812001	As per NIT	As per NIT	As per NIT

3. Cost of bidding document which is non-refundable, shall be paid through **Internet Payment Gateway (IPG) / Challan**.
4. Bids must be accompanied by Security amount specified for the work in the table, payable at Bhagalpur and drawn in favour of “Chief Executive Officer”, Bhagalpur Smart City Limited. Bid Security will have to be in any one of the forms as specified in the bidding document and shall have to be valid for 45 days beyond the validity of the bid.
5. Cost of Bid Security shall be deposited in the office of the Chief Executive Officer, BSCL, Municipal Corporation, Court compound, Bhagalpur, Bihar - 812001, on the time & date mentioned as per NIT/Corrigendum by post / hand. Only those applications will be entertained whose bid security is received on or before time & date mentioned as per NIT/Corrigendum. BSCL will not be held responsible for postal delay, if any, in the delivery of the document or non-receipt



of the same in BSCL.

6. Tenderer(s) shall upload scanned copy in pdf format/Digitally Signed copy of his/her Valid DD, Bid Security, Credit Facility, GST, PAN, Five Years Audited Turnover, Five Years Income Tax Return, Work Experience, Partnership Deed or Article of Association / Memorandum, Undertakings, Affidavits, Power of Attorney, Undertaking & Solvency Certificate failing which the bid shall be rejected.
7. EPF, ESI & Labour license registration/undertaking in case award of work.
  8. Uploaded documents of successful bidder will be verified with the original before signing the agreement. The successful bidder has to provide the originals to the concerned authority on receipt of such a letter, which can be sent through registered post or speed post or can be delivered by hand or email.
  9. Bidders in order to participate in the bidding process have to get 'Digital Signature Certificate (DSC)' as per Information Technology Act-2000 to participate in online bidding. This certificate will be required for digitally signing the bid. Bidders can get the above-mentioned digital Signature certificate from any approved vendors (CCA). Bidders, who already possess valid Digital Certificates, need not procure new Digital Certificate.
  10. Bidders have to submit their bid online in electronic format with Digital Signature. Bids without Digital Signature will not be accepted.
  11. The work shall have to be completed in time, failing which penalty for non-completion of work in time shall be imposed, as stated in the Bid Document. Please note that there is a provision of Bonus for early completion of work.
  12. Bidders who have rescinded work in any department/PSU shall not be eligible to participate in the bidding process.
  13. Bidders shall provide their Banker's contact details, so that BSCL can contact the Bank, if required.
  14. If any work is awarded to a bidder after submission of bid to BSCL, his bid capacity shall be reduced by that bid amount as indicated in Para 1.4 of Qualification Information & Other Forms (Section-3 of ITB).
  15. Successful bidder shall have to take all necessary approvals and clearances from the competent authority such as Ministry of Environment and Forest (MoEF)/ Central Pollution Control Board/ State Pollution Control Board etc.
  16. Deleted
  17. Other details can be seen in the bidding documents.

Sd/-  
**Chief Executive Officer (CEO),**  
Bhagalpur Smart City Limited.

## **SECTION 2**

### **INSTRUCTIONS TO BIDDERS**

**(ITB)**

## Instructions to Bidders

<b>Sr. No.</b>	<b>Clause</b>
<b>A.</b>	<b>General</b>
1	Scope of Bid
2	Source of Funds
3	Eligible Bidders
4	Qualification of Bidder
5	One Bid per Bidder
6	Cost of Bidding
7	Site visit
<b>B.</b>	<b>Bidding Documents</b>
8	Content of Bidding Documents
9	Clarification of Bidding
10	Amendment of Bidding Documents
<b>C.</b>	<b>Preparation of Bids</b>
11	Language of Bid
12	Documents Comprising the Bid
13	Bid Prices
14	Currencies of Bid and Payment
15	Bid Validity
16	Bid Security
17	Alternative Proposals by Bidders
18	Format and Signing of Bid

<b>Sr. No.</b>	<b>Clause</b>
<b>D.</b>	<b>Submission of Bids</b>
19	Method of Submission
20	Deadline of Submission of Bids
21	Late Bids
22	Modification and Withdrawal of Bids
<b>E.</b>	<b>Bid Opening and Evaluation</b>
23	Bid Opening & Evaluation of Bids
24	Process to be Confidential
25	Clarification of Financial Bids
26	Examination of Bids and Determination of Responsiveness
27	Correction of Errors
28	Evaluation and Comparison of Financial Bids
<b>F.</b>	<b>Award of Contract</b>
29	Award Criteria
30	Employer's right to Accept any Bid and reject any Bid
31	Notification of Award and Signing of Agreement
32	Performance Security
33	Advance Payment and Security
34	Corrupt or Fraudulent Practices
35	Dispute Resolution

## **A. GENERAL**

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

- 1.1 The Employer (named in appendix to ITB) invites bids for the construction of works (as defined in these documents and referred to as “the works”) detailed in the table given in IFB. The bidders need to submit bids for entire work detailed in the table given in IFB.
- 1.2 In this project, the estimated cost of the project is given in the documents and bidders should submit their bid amount with regard to the entire work as per the scope as indicated above complete in all respect internal and external finish etc., approval of the same from competent authorities (BSCL).
- 1.3 The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.
- 1.4 Throughout these bidding documents, the terms ‘bid’ and ‘tender’ and their derivatives (bidder/ tenderer, bidding/tendering, etc.) are synonymous.

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

The expenditure on this project will be met from fund allocated to Bhagalpur Smart City Limited from Govt. of Bihar & Govt. of India under Smart City Mission.

### **3. Eligible Bidders**

- 3.1 This invitation for Bids is open to all bidders as mentioned in IFB.
- 3.2 All bidders shall provide in Section 3, Forms of Bid and Qualification Information, a statement in para 1.12, that the Bidder is neither associated, nor has been associated, directly or indirectly, with the Consultant or any other entity that has prepared the tender design, specifications and other documents for the Project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the works, and any of its affiliates, shall not be eligible to bid.

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

- 4.1 All bidders shall provide in Section-3, Forms of Bid and Qualification Information, a preliminary description of the proposed work method and schedule as necessary. The proposed methodology should include programme of construction duly supported with 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 Deleted.

4.3 All bidders shall include the following information and documents with their bids in Section-3:

- 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) Total monetary value of construction work performed for each of the last five years.
- c) The contractor/firm must have achieved a minimum annual financial turnover equal to 50% of estimated cost in any one financial year during last five completed financial years (from 2015-16 to 2019-20).
- d) The contractor/firm must have satisfactorily completed as a prime contractor at least one similar work of value not less than 25% of estimated cost during last five completed financial years between 2015-16 and 2019-20 (work of 90% or more of contract value executed will be taken as completed work).
- e) Experience in similar works means: -

**Construction of minimum G+1 Building**

**Or**

**Executed in any one year, the minimum quantities of the following items of work as indicated:-**

- i) cement concrete (including RCC and PCC): 933 cum
- ii) Brickwork: 596.75 cum
- iii) Cost of Electric work: Rs. 29.56 lakh
- iv) Cost of water supply work: Rs. 8.84 lakh
- f) Major items of construction equipment proposed to carry out the Contract.
- g) Qualifications and experience of key site management and technical personal proposed for Contract.
- h) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years.
- i) Evidence of access to line (s) of credit and availability of other financial resources facilities (10% of contract value), certified

- by the approved Bankers (not more than 03 months old).
- j) Undertaking that the bidder will be able to invest minimum cash up to 25% of contract value of work, during implementation of work.
  - k) Authority to seek references from the Bidders' bankers;
  - l) Self-attested copy of information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties' concerned, and disputed amount;
  - m) Proposals for sub-contracting components of the works amounting to more than 10 percent of the Bid Price shall not be permitted, except for specialized nature of work in which new emerging engineering methodology is proposed to be used with the prior approval of implementing agency. Use of such new technologies should be indicated while submitting the bid.
  - n) The proposed work programme and methodology of construction and during operation and maintenance five years required to be furnished, quality control procedures proposed to be adopted, justifying their capability of supply, installation and commissioning of the work as per scope within the stipulated period of completion as per milestones.
  - o) Any bidder debarred from work or blacklisted from any Govt./Semi Govt./Central PSU/State PSU will not be allowed to participate in this tender.

4.4 Joint ventures are not acceptable.

**4.5 A. To qualify for award of the contract, each bidder in its name must have in the last five years as referred to in Appendix.**

- a) The contractor/firm must have achieved a minimum annual financial turnover equal to 50% of estimated cost in any one financial year during last five completed financial years (from 2015-16 to 2019-20).
- b) The contractor/firm must have satisfactorily completed as a prime contractor at least one similar work of value not less than 25% of estimated cost during last five completed financial years between 2015-16 and 2019-20 (work of 90% or more of contract value executed will be taken as completed work).

The sole contractor/firm must have experience in similar work means: -

Construction of minimum G+1 Building

Or

Executed in any one year, the minimum quantities of the following items of work as indicated:-



i) cement concrete (including RCC and PCC): 933 cum

ii) Brickwork: 596.75 cum

iii) Cost Of Electric work: Rs. 29.56 lakh

iv) Cost of water supply work: Rs. 8.84 lakh

Even though the bidder meets the above qualifying criteria, he is subject to be disqualified, if he has made a misleading or false representation(s) in the forms, statements and attachments in proof of the qualifying requirements.

- c) The contractor or his identified sub-contractor should possess required valid electrical licenses for executing the electrification works.
- d) The contractor or his identified sub-contractor should have executed any water supply/sanitary Engineering works.
- e) If the work is of specialized nature of work or if a new type of Engineering methodology is proposed to be adopted, the contractor or his identified sub- contractor or Experienced Vendor of that particular field shall produce Experience Certificate for executing the similar nature of work for the minimum amount as indicated in Appendix to ITB in any one year.

**B. Each bidder should further demonstrate**

- a) availability (either owned or by procurement against mobilization advances) of the key and critical equipment for this work given in Annexure-I of section-2 which is indicated the studies, carried out by client equipment to attain the completion of works in accordance with the prescribed work schedule.

The bidders should, however, undertake their own studies and furnish with their bid, a detailed planning and methodology as per their experience provided in clause 4.3(C) above in order to allow the employer to review their proposals. The numbers, types and capacities of each equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

- b) Availability of personnel/ service engineer for this work with adequate experience as required; as per Annexure-II of Section-2.

- c) Liquid assets and/or availability of credit facilities of no less than amount indicated in para 5 of Appendix to ITB (Section-2) (credit lines/letter of credit/certificates from Banks for meeting the funds requirements etc.- usually the equivalent of the estimated cash flow for 03 months period.)

### **C. Deleted**

#### 4.6 Deleted

- 4.7 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:

$$\text{Available Bid capacity} = (A * 3 * N - B)$$

where,

A = Maximum value of similar nature of works executed in any one year during the last five financial years between 2016-17 and 2020-21 (updated to the price level of the year indicated in para-15 of Appendix to ITB) taking into account the completed as well as works in progress.

N=Number of years prescribed for completion of the works for which bids are invited up to two places of decimals.

B=Value (updated to the price level of the year as indicated in para-15 of Appendix to ITB) of existing commitments and ongoing works to be completed during the next 12 months.

#### **Note:**

1. The statements showing the value of existing commitments and on-going works as well as the stipulate period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of Executive Engineer or equivalent.
2. Escalation factor (for computing common base value for works completed and annual financial turnover) is given in para-15 of Appendix to ITB.

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

- made misleading or false representations in the forms, statements and attachments in proof of the qualification requirements; and/or
- Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or

financial failures etc.

## **5. One Bid per Bidder**

5.1. Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one Bid (other than as a sub contractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified.

## **6. Cost of Bidding**

6.1 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 that may be necessary for preparing the Bid and entering into a contract for supply, installation, commissioning and operation & maintenance of the works. The costs of visiting the Site shall be at the Bidder's own expense.

## **7.2 General Terms and Conditions for E-tendering:**

- a) The detail tender notice and Tender Document can be seen on website: <https://www.eproc2.bihar.gov.in> and downloaded online from the Portal: <https://www.eproc2.bihar.gov.in> by the Firms / Individual registered on the Portal.
- b) As the proposals are to be submitted online and are required to be encrypted and digitally signed, the Bidders are advised to obtain Digital Signature Certificate (DSC) at the earliest.
- c) The payment for Tender Document Fee shall be made by the bidder in the mode of Internet Payment Gateway (IPG) / Challan only.
- d) The undersigned reserves the right to reject any or all the tenders without assigning any reason what so ever and no conditional and postal tenders will be accepted.
- e) If the date on which the tenders are to be received is declared a public holiday, the tender will be received on the next working day.
- f) The offer will remain valid up to 120 days from the due date of submission of tenders.
- g) Any amendment to a tender after opening of tender made by the tenderer according to his own will is liable to be ignored altogether and such tenderer will be debarred from tendering for a period of six months.

Sd/-  
**Chief Executive Officer, (CEO)**  
Bhagalpur Smart City Limited.

## **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:

<b>Section</b>	<b>Particulars</b>	<b>Volume No.</b>
1	Invitation for Bids (IFB) including Instructions to Bidders for Online Submission of Bids	
2	Instruction to Bidders	I
3	Qualification Information and other forms	
4	General Conditions of contract – General and Special Conditions of Contract	
5	Special Conditions of Contract & Additional Conditions of Contract	
6	Contract Data	
7	Technical Specifications	II
8	Form of bid	III
9	Price Bid	
10	Securities and other forms	
11	Drawings	IV
12	Documents to be furnished by bidder	V

8.2 Documents to be furnished by the bidder in compliance to Section-2 will be prepared by him in two parts viz Part 1 – Technical Bid, Part 2- Financial Bid and furnished as Volume- V in two parts (refer clause 12).

8.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms/terms, technical specifications, price bid form, Annexes 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 Clarification of Bidding Refer to sub-Clause 9.2 of IFB**

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

9.2.1 The bidder or his official representative is invited to attend a pre-bid meeting which will take place at the address, venue, time and date as mentioned in NIT.

9.2.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.3 The bidder may request a clarification on any clause of the RFP documents up to the Pre-bid query submission date and time indicated in the NIT. Clarification should be submitted in the following table in excel format otherwise the queries shall not be entertained:

Sr. No.	RFP Page No.	Clause No.	Description as per RFP	Queries/ Suggestions

9.2.4 Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the bidding documents. Any modification of the bidding documents listed in sub-Clause 8.1 which may become necessary as a result of the pre- bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting.

9.2.5 Non-attendance at the pre-bid meeting will not be a clause 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 addenda/corrigenda.

10.2 Any addendum/corrigendum thus issued shall form part of the bidding documents and shall be communicated in writing or by cable to all the purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum in writing or by cable to the Employer. The Employer will assume no responsibility for postal delays.

10.3 To give prospective bidders reasonable time to take appropriate action in accordance to the addendum/corrigendum while preparing their bids, the Employer may, at his discretion, extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2 below.

## C. PREPARATION OF BIDS

### 11. Language of the Bid

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

### 12. Documents Comprising the Bid

12.1 The bid to be submitted by the bidder will be as Volume-V of the bid document (refer Clause 8.1) and shall be in two separate parts viz part I and part II detailed below:

#### Part I shall be “Technical Bid” and shall comprise

- i. Bid security (Bank Guarantee etc.) in the form specified in Section 10.
- ii. Qualification Information and supporting documents as specified in Section 3.
- iii. Certificates, undertaking, affidavits as specified in Section 3.
- iv. Any other information pursuant to Clause 4.3 of these instructions.
- v. Undertakings that the bid shall remain valid for the period specified in Clause 15.1 of section -2

#### Part II shall be “Financial Bid” and shall comprise

- vi. Form of Bid as specified in Section 8.
- vii. Price Bid as specified in Section 9

12.2 Priced Bid for whole work as specified in Section 9, read together with clause 19. The bidder shall submit bid online in the correct slot prescribed in the e-Procurement website by using digital signature.

12.3 Following documents, which are not submitted with the bid, will be deemed to be part of the bid.

Section	Particulars		Volume No.
1.	Invitation for Bids (IFB)		
2.	Instruction to Bidders		
3.	Qualification Information and other forms		
4&5.	Conditions of Contract (General and Special Conditions of Contract)		I
6.	Contract Data		
7.	Technical Specifications		II
8.	Form of Bid		III
9.	Price Bid		
10.	Securities and other forms		
11.	Drawings		IV
12.	Documents to be furnished by bidder		V

12.4 Bidders have to submit their bids as per below instructions otherwise it may result in the rejection of the Bid;

<b>Name of Documents</b>	<b>Content</b>	<b>Mode of Submission</b>
Bid Security/ Earnest Money Deposit (EMD)	Bid Security/Earnest Money Deposit (EMD) receipt in Original.	Both Online and Hard Copy
All Declarations / Affidavit / Agreements / Authorization	All Declarations / Affidavit / Agreements / Authorization in Original.	Online Only
Qualification Bid	All the documents for Submission of the Qualification Bid, its sub sections and any other applicable documents as per RFP.	Online Only
Technical Bid	All the documents for Submission of the Technical Bid, its sub sections and any other applicable documents as per RFP.	Online only
Financial Bid	All the formats for Submission of the Commercial Bid, its sub sections and any other applicable documents as per RFP.	Online Only



### **13. Bid Prices**

- 13.1 The contract shall be for the whole works as described in Sub-Clause 1.1. and table given in IFB (Section-1) as per the price bid.
- 13.2 The bidder shall fill in rates both in figure and words. In case of any difference, the rate quoted in words will be taken as the quoted rate.
- 13.3 All taxes including GST payable by the contractor under the contract, or for any other cause shall be included in Bid Price submitted by the Bidder.
- 13.4 The prices quoted by the bidder shall not be changed up to 10 % variation of quantity and beyond that contractor may claim for extra item as this is an item rate contract to be completed in a time bound manner.
- 13.5 Bid Price submitted by the Bidder shall include Operation & Maintenance of 5 (five) years.

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

- 14.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payment shall be made in Indian Rupees.

### **15. Bid Validity**

- 15.1 Bids shall remain valid for a period not less than 120 days after the deadline 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 (indicated as sl.no v of Part 1- Technical Bid) 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 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. 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.
- 15.3 Bid evaluation will be based on the bid prices.

### **16. Bid Security**

The Bidder shall furnish, as part of his Bid, a Bid security in the amount as shown in column 4 of the table of IFB for this particular work. This bid security shall be in favor of Employer as named in Appendix and may be in one of the following forms:

Internet Payment Gateway (IPG) / Challan / Bank Guarantee

Bank Guarantee from any from any Scheduled Indian Bank from any of the branches Nationalized / Scheduled Bank situated **within the territory of India** in the form given in Section-9.

- 16.1 Bank guarantees (and other instruments having fixed validity) issued as surety for the bid shall **be valid for 45 days beyond the validity of the bids**
- 16.2 Any bid not accompanied by an acceptable Bid Security and not secured as indicated in Sub-Clauses-16.1 and 16.2 above shall be rejected by the Employer as non- responsive.
- 16.3 The Bid security of unsuccessful bidders will be returned within 30 days of the end validity period specified in sub-Clause15.1.
- 16.4 The Bid security of the successful bidder will 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) if the Bidder does not accept the correction of the Bid Price, pursuant to Clause 27; or
  - c) 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.

## **17. Alternative Proposals by Bidders**

- 17.1 Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the conditions of contract (including mobilization advance or time for completion), basic technical design as indicated in the drawing and specifications. **Conditional offer or alternative offers will not be considered further in the process of tender evaluation.**

## **18. Format and Signing of Bid**

- 18.1 The bidder shall submit the bids as per “Instructions to Bidders for Online Submission of Bids”.
- 18.2 Instruction to Bidders to be followed. Bids submitted online should be digitally signed by the bidder.
- 18.3 Bidders shall follow the Method of submission of bid as mentioned in Instruction to Bidders and Instructions to Bidders for Online Submission of Bids.

## **SUBMISSION OF BIDS**

### **19. Method of Submission**

- 19.1 Bidders shall follow the Method of submission as per Instructions to Bidders for Online Submission of Bids given in Section-1 (IFB) in so far this bid is considered whose identification is given in item no. 10 Appendix to ITB.

### **20. Deadline for Submission of the Bids**

- 20.1 Bidders shall follow the Method of online submission of bid as mentioned in Instruction to Bidders in section-1 and the bid should be submitted online latest by the date and time given at item 12 Appendix to ITB.
- 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**

- 21.1 Any Bid received by the Employer after the deadline prescribed in Clause 20 will be returned to the bidder.

### **22. Modification and Withdrawal of Bids**

- 22.1 Bidders may modify or withdraw their bid(s) before the deadline prescribed in Clause 20 or pursuant to Clause 23.
- 22.2 Bidders shall follow the Method of submission modification & withdrawal of bid as mentioned in Instruction to Bidders (for SBD contract).
- 22.3 No bid may be modified after the deadline for submission of Bids except in pursuance of Clause-23.
- 22.4 Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 15.1 above or as extended

pursuant to clause 15.2 may result in the forfeiture of the Bid security pursuant to Clause 16.

## **BID OPENING AND EVALUATION**

### **23. Bid Opening**

23.1 The Employer will open all the Technical Bids submitted online including modification made pursuant to Clause 22, in the manner specified in Clause 20 and 23.3. In the event of the specified date of Bid opening being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day. A notice for the same shall be posted on the website.

#### **23.2 Evaluation of Bid**

- i. Subject to confirmation of the bid security by the issuing bank, the bids accompanied with valid security will be taken up for evaluation with respect to the Qualification Information and other information furnished in Part I of the bid pursuant to ITB clause-12.1.
- ii. After receipt of confirmation of the bid security, the bidder will be asked in writing/ e-mail (usually within 10 days of opening of the Technical Bid) to clarify his technical bid, if necessary, with respect to any rectifiable defects.
- iii. The bidders will respond by e-mail in not more than 7 days of issue of the clarification letter, which will also indicate the date, time and venue of opening of the Financial Bid (usually on the 21st day of opening of the Technical bid)
- iv. Immediately (usually within 3 or 4 days), on receipt of these clarifications the Evaluation Committee will finalize the list of responsive bidders whose financial bids are for consideration.

23.3 After the technical evaluation, these will be put to the Employer, which will find technically responsive bids. The financial of those bids will be opened who are found technically responsive. The financial bids of remaining bidders will remain unopened.

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

23.5 The Employer shall prepare disclose information regarding bid opening to those present.

23.6 The Employer shall open the bid and the information regarding bid opening may be disclosed to those present as representative of the

bidder.

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

24.1 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 to the successful 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 any Bidder for clarification of his Bid, justification, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price of substance of the Bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids in accordance with ITB Clause-27.

25.2 Subject to ITB sub-clause 25.1, 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 in 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:

26.1.1 meets the eligibility criteria defined in ITB Clause 3 and 4;

26.1.2 has been properly signed digitally;

26.1.3 is accompanied by the required securities; and

26.1.4 Is substantially responsive to the requirements of the bidding documents. During the detailed evaluation of the 'Financial Bid' the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e. price bid, 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 the 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**

27.1 'Financial Bids' determined to be substantially responsive will be checked by the Employer for any arithmetical errors. Errors will be corrected by the Employer as follows:

- (a) where there is a discrepancy between the rates in figures and in word, the rate in words will govern; and
- (b) Where there is a discrepancy between the unit rate and the line-item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.

27.2 The amount stated in the 'Financial Bid' will be corrected by the Employer in accordance with the above procedure and the bid amount adjusted with the concurrence of the Bidder in the following manner:

- i. If the Bid price increases as a result of these corrections, the amount as stated in the bid will be the 'bid price' and the increase will be treated as rebate;
- ii. If the bid price decrease as a result of the corrections, the decreased amount will be treated as the 'bid price'. Such adjusted bid price shall be considered as binding upon the bidder. If the Bidder does not accept the corrected amount the Bid will be rejected, and the Bid Security shall be forfeited in accordance with ITB Sub-clause 16.6(b).

## **28. Evaluation and Comparison of Financial Bids**

28.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Sub-Clause-26.2.

28.2 In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

- a. making any corrections for errors pursuant to clause 27; or
- b. making an appropriate adjustment for any other acceptable variations, deviations
- c. In case lowest quote is made by more than one bidder, then the bidder who has successfully completed and attached completion certificate while submitting online bid for more number of similar projects in the last 3 years would be awarded the work. Still, if there is a tie, lottery system will be followed to award the contract.

28.3 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, the Employer may require that the amount of the performance security set forth in Clause 32 be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.



## **D. 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

- i. To be substantially responsive to the bidding documents and who has offered the lowest evaluated Bid Price; and
- ii. To be within the available bid capacity adjusted to account for his bid price which is evaluated the lowest in any of the packages opened earlier than the one under consideration. 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 the L1 cost if accepted by next lowest bidder otherwise tender stands cancelled.

### **30. Employer's Right to Accept or Reject any Bid**

30.1 Notwithstanding Clause 29, the Employer reserves the right to accept or reject any Bid, 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 After award of contract, if the Bidder is found to have concealed any fact relevant to projects, the employer may blacklist the Bidder or Bidders within 180days, with due process as-

- i. 3 Years Blacklisting for the Project Cost Rs. 1.00 Crore to Rs. 10.00 Crore
- ii. 5 Years Blacklisting for the Project Cost above Rs. 10.00 Crore to Rs.100.00 Crore
- iii. 10 Years Blacklisting for the Project Cost above Rs. 100.00 Crore

### **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 or facsimile confirmed by letter. This letter (herein after and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the contractor in consideration of the execution, completion, and maintenance of the Works by the contractor as prescribed by the contract (hereinafter and in the contract called the

“Contract Price”).

312 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.

313 The Agreement will incorporate all agreements between the Employer and the successful Bidder. This agreement will be signed only after furnishing of the performance security by the successful bidder but within 15 (Fifteen) days of issue of Letter of Acceptance. The Employer will promptly notify the other bidders that their Bids have been unsuccessful.

## **32. Performance Security**

32.1 Within 15 (Fifteen) 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 in 32.2 for an amount equivalent to 3% of the Contract price (**As per Ministry of Finance, GOI Office Memorandum No. F.9/4/2020-PPD dated 12 Nov. 2020**) and provision to take an additional security for unbalanced Bids in accordance with the Clause 32.6 of RFP.

32.2 A bank guarantee from any of the branches of Nationalized/Scheduled Bank situated within territory of India in the form given in Section 10; or Certified Cheque / Bank Draft payable to employer as indicated in item no. 16 Appendix to ITB.

32.3 If the performance security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued from any of the branches of Nationalized/Scheduled Bank situated within the territory of India.

32.4 Failure of the successful Bidder to comply with the requirements of Sub-Clause 32.1 shall constitute grounds for cancellation of the award and forfeiture of the Bid Security.

32.5 The validity of the performance security is 30 days beyond the operation and maintenance period.

### **32.6 Additional Performance Guarantee:-**

Provision for taking Additional Performance Guarantee for rate quoted below Bill Of Quantity (BOQ) rate shall be made as follows:-

- a) Additional Performance Guarantee will be charged at the rate of 0.25% for every 1% rate quoted below bill of quantity for rated quoted 0% to 5% below bill of quantity.
- b) Additional Performance Guarantee will be charged at the rate of 0.5% for every 1% rate quoted below bill of quantity for rated quoted 5% to 15% below bill of quantity.
- c) Additional Performance Guarantee will be charged at the rate of 01%

for every 1% rate quoted below bill of quantity for rated quoted 15% to 20% below bill of quantity.

- d) Additional Performance Guarantee will be charged at the rate of 02% for every 1% rate quoted below bill of quantity for rated quoted 20% below bill of quantity.

### **33. Advance Payment and Security**

The Employer will provide contract or an interest-bearing mobilization advance (as per CVC guidelines in this regard) on the Contract Price in two stages of 5% each subject to maximum amount of 10% of contract price.

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

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 with BSCL, UD & HD, Government of Bihar, and any other state agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contract, or in execution of the work related to contract.

### 35. Dispute Resolution

The dispute arising between the employer and the contractor, if not resolved amicably shall be referred to appointed expert mediator of Bihar State Legal Services Authority (BSLSA). If the matter does not get resolved it will finally go for arbitration. Arbitration in such a case will be done in accordance to Indian Arbitration and Conciliation Act, 1996 and amended provisions thereof. The place of arbitration shall be Bhagalpur and the language of arbitration shall be English. This may be read in conjunction with clause 20.2 of Condition of Contract.

#### APPENDIX to ITB

S. No.	Description	Clause Reference with respect to Section- 2
1.	Name of the Employer is Chief Executive Officer, Bhagalpur Smart City Limited, Bhagalpur	[C1. 1.1]
2.	The last five years	[Cl. 4.5 A (a)]
	2015 – 2016	
	2016 – 2017	
	2017 – 2018	
	2018 – 2019	
	2019 – 2020	
3.	Minimum annual financial turnover amount is 50% of estimated cost (all class of similar nature of work as defined in any one financial year from last five years).	[C1.4.5A(a)]
4.	Minimum work Completion Experience	[C1.4.5A(b)]
5.	Liquid assets and/or availability of credit facilities is 25 % of the project cost.	[C1.4.5B(c) & Cl.4.3(h)]
6.	<b>Deleted.</b>	
7.	The pre-bid meeting will take place at – BSCL Office, Municipal Corporation, Court Compound, BSCL, Bhagalpur	[C1. 9.2.1]

8.	The Technical bid will be opened at BSCL Office, Bhagalpur	[C1 .23.1.]
9.	Address of the Employer:  Bhagalpur Smart City Limited, Municipal Corporation, Court Compound, Bhagalpur	
10.	Submission of Bid:	[Cl. 19]
11.	NIT No.	BSCL/School/2021/54
12.	The bid should be submitted online	[C1. 20.1]
13.	The bid will be opened at the time, date and venue mentioned in NIT	[C1.23.1]
14.	The Bank Guarantee shall be in favor of <b>Chief Executive Officer, Bhagalpur Smart City Limited.</b>	[C1.32.2]
15.	Escalation factors (For bringing the cost of works executed in different financial year to a common base value and annual financial turnover)	
	Years before	Multiply factor
	2015-16	1.61
	2016-17	1.46
	2017-18	1.33
	2018-19	1.21
	2019-20	1.10

## ANNEXURE – I

### List of Indicative Equipment to be supplied and installed on Contract work

[Reference Cl. 4.5 (B) (a)]

#### 1. Indicative list of equipment to be deployed

Sl.	Type of Equipment (leased or owned)	Maximum age as on 01.01.2020 (in Years)	Minimum no. of Equipment required
1.	JCB	5	1
2.	Water Tank	5	1
3.	Bar Cutting Machine	5	4
4.	Bar Bending Machine	5	2
5.	Welding Machine	5	4
6.	Vibrator (Needle)	5	4
7.	Well-equipped Laboratory facility for quality test		One
8.	Transit Mixer with pumping arrangement	5	1
9.	Steel Prop	5	For 500 Sqm
10.	Concrete Batching Plant (10 cum / hour)	5	1
11.	Steel Plate with fitting	5	For 500 Sqm
12.	Staging pipe with fitting	5	For 500 Sqm
13.	Cube Testing Machine (CTM)	5	1
14.	Cube Mould	5	30

## ANNEXURE – II

**List of Minimum Key Personal to be deployed on Contract Work by the Contract Agency:**

**[Reference Cl.4.5 (B) (b)]**

### **1. During Construction Period**

<b>S.No.</b>	<b>Personnel</b>	<b>Qualification</b>	<b>No. of Person</b>
<b>1</b>	Project Manager	B.E/B.Tech/B.Sc. in Civil Engineering or equivalent with 05 Years Exp. (2 years as Project Manager)	<b>1</b>
<b>2</b>	Site Engineer	B.E/B.Tech/Bsc. in Civil Engineering with 5 Years Exp. (including 3 years in Building Construction) or Diploma Civil with 07 Years Exp. (including 5 years in Building Const.)	<b>2</b>
<b>3</b>	Electrical Engineer	B.E. Electrical + 5 Years Exp. Or Diploma in Electrical + 07 years Exp.	<b>1</b>
<b>4</b>	Quantity Surveyor/Billing Engineer	B.E/B.Tech/Bsc. in Civil Engineering with 5 Years Exp. Or Dip. Civ. + 7 years Exp.	<b>1</b>
<b>5</b>	Quality Control Engineer	B.E/B.Tech/Bsc. in Civil Engineering with 5 years' Experience in Quality Control works	<b>1</b>
		<b>Total</b>	<b>6</b>

All the bio data of the proposed staffs shall be duly signed by the Authorized Signatory of the bidder.

## **SECTION 3**

### **QUALIFICATION INFORMATION**

**&**

### **OTHER FORMS**



## QUALIFICATION INFORMATION

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

### **1. For Individual Bidders**

#### **1.1. Constitution or legal status of Bidder [Attach copy]**

Place of registration:

Principal place of business:

Power of attorney of signatory of Bid [Attach]

#### **1.2. Total value of similar nature of work performed in the last five financial years\*\* (in Rs. Lakhs)**

2015-16	
2016-17	
2017-18	
2018-19	
2019-20	

- 1.3. Work of similar nature performed as prime contractor, work performed in the past as a nominated sub- contractor will also be considered provided the sub-contract involved supply, installation, commissioning of all works which comes under similar projects, provided further that all other qualification criteria are satisfied (in the same name) on works of a similar nature over the last five financial years (2015-16 to 2019-20) and the current financial year till date.

Project Name	Name of the Employer *	Description of Work	Contact Number	Value of Contract (Rs. Crore) (β)	Date of issue of Work Order	Period of Completion	Actual Time of Completion*	Remarks Explaining Reasons for Delay and Work Completed

\* Attach certificate(s) from the Engineer(s)-in-Charge/EE/Employer. β Attached certificate from Chartered Accountant (CA)

In case lowest quote is made by more than one bidder, then the bidder who has successfully completed and attached completion certificate while submitting online bid form or the number of similar projects in the last 3 years would be awarded the work. Still, if there is a tie, lottery system will be followed to award the contract.

1.4 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:

Description of works	Place & State	Contract No.	Name & Address of Employer	Value Contract (Rs Lakh)	Period of Completion	Value of Works* Of remaining To be completed (Rs Lakh)	Anticipated date of completion
1	2	3	4	5	6	7	8

\* Attach certificate(s) from the Engineer(s)-in-Charge/EE/Employer. The item of work for which data is requested should tally with that specified in ITB clause 4.7.

(B). Works for which bids already submitted:

Description of work	Place & State	Name & Address of Employer	Estimated value of works (Rs Lakh)	Period of completion	Date when decision is expected	Remarks If any
1	2	3	4	5	6	7

1.5 Availability of key items of Contractor's Equipment essential for carrying out the Works [ref. Clause 4.5(B)(a). The Bidder should list all the information requested below. Refer also to Sub Clause 4.3(d) of the Instructions to Bidders.

Item of Equipment	Requirement		Availability Proposals			Remarks (from whom to be purchased)
	No.	Capacity	To be procured	Nos. / Capacity	Age/ Condition	

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1.6 Qualifications and experience of key personnel required for administration and execution of the Contract [Ref. Clause 4.5(B)(b)]. Attach biographical data. Refer also to sub Clause4.3(e) of Instructions to Bidders.

Position	Name	Qualification	Years of Professional Experience	Years of experience in Proposed position

1.7 P  
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contrac  
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firms  
involv  
ed.  
[Refer

ITB Clause4.3(k)]

Sanctions of the works	Value of Sub-contract	Sub-contractor (Name & Address)	Experience in similar Work

A  
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a  
c  
h  
c

opies of certificates on possession of valid license for electrification [Reference Clause 4.5A(c) of ITB].

1.8 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. (Attach certificate from Chartered Accountant)

1.9 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.

1.10 Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who

may provide references if contacted by the Employer.

1.11 Information on litigation history of current and last 05 financial years starting 2015-16 in which the Bidder is involved.

Other Party(ies)	Employer	Cause of Dispute	Amount involved	Remarks showing Present Status

1.12 Statement of compliance under the requirements of Sub Clause 3.2 of the Instructions to Bidders. (Name of Consultant engaged for project preparation is)

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1.13 Proposed work methods and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents. [Refer ITB Clause 4.1 & 4.3(a)]

1.14 Programme

1.15 Quality Assurance Programme

## 2. **Additional Requirements.**

- 2.1. Affidavit as provided in Section 3
- 2.2. Undertaking as provided in Section 3
- 2.3. Bidders should provide any additional information required to fulfill the requirements of Clause 4 of the Instructions to the Bidders, if applicable.
- 2.4. Copy of letter of association in the form of agreement with subcontractor for the work defined or for any specializes /Engineering methodology work.
- 2.5. **Note: Even though the bidder meets the above qualifying criteria, he is subject to be disqualified, if he has made a misleading or false representation(s) in the forms, statements and attachments in proof of the qualifying requirements.**

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO  
OR  
AVAILABILITY OF CREDIT FACILITIES**

**(Clause 4.3 (g) OF ITB)**

**BANK CERTIFICATE**

This is to certify that M/s. .... is a reputed  
Company with a good financial standing.

If the contract for the work, namely..... is  
awarded to the above firm, we shall be Able to provide overdraft/credit facilities  
to the extent of Rs.....to meet their working capital requirements for  
executing the above contract during the contact period.

\_\_\_\_\_  
  
(Signature)  
Name of Bank  
Senior Bank Manager  
Address of the Bank

## **AFFIDAVIT**

**Also refer qualification information format para 2.1 in the same Section**

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 \_\_\_\_\_  
Has been blacklisted nor has abandoned any work in any government department, India or any contract awarded to us for such work 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.

(Signed by an authorized Officer of the Firm)

\_\_\_\_\_

\_\_\_\_\_

Title of officer

\_\_\_\_\_

Name of Firm

\_\_\_\_\_

Date

## UNDERTAKING

**Also refer qualification information format para 2.2 in the same Section**

I, the undersigned do hereby undertake that our firm M/s.....

Would invest a minimum cash up to 25% of the value of the work during implementation of the Contract.

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(Signed by an authorized Officer of the Firm)

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Title of officer

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Name of Firm

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Date



## **SECTION 4**

### **GENERAL CONDITIONS OF CONTRACT**

## **General Conditions of Contract**

### **ARTICLES**

1. Definitions of Interpretation
2. Scope of Work
3. Obligation of the Contractor
4. Obligation of the Authority
5. Representation & Warranties
6. Disclaimer
7. Performance Security
8. Site of Project
9. Utilities & Trees
10. Design & Construction of the Project
11. Quality Assurance, Monitoring & Supervision
12. Completion Certificate
13. Change of Scope
14. Traffic Regulation
15. Defects Liability
16. Authority's Engineer
17. Financial Covenants
18. Insurance
19. Force Majeure
20. Suspension of Contractor's Rights
21. Termination
22. Assignment & Charges
23. Liability & Indemnity
24. Dispute Resolution
25. Miscellaneous
26. Definition

## ARTICLE 1

### DEFINITIONS AND INTERPRETATION

#### 1.1 Definitions

The words and expressions beginning with capital letters and defined in this Agreement (including those in Article 26) shall, unless the context otherwise requires, have the meaning ascribed thereto herein, and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules.

#### 1.2 Interpretation

1.2.1 In this Agreement, unless the context otherwise requires,

- a. references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;
- b. References to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re- enacted;
- c. references to a “**person**” and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
- d. the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;
- e. the words “**include**” and “**including**” are to be construed without limitation and shall be deemed to be followed by “without limitation” or “but not limited to” whether or not they are followed by such phrases;
- f. references to “construction” include, unless the context otherwise requires, survey and investigation, design, developing, engineering, procurement,

supply of plant, materials, equipment, labour, delivery, transportation, installation, processing, fabrication, testing, and commissioning of the Project, including maintenance during the Construction Period, removing of defects, if any, and other activities incidental to the construction and “**construct**” or “**build**” shall be construed accordingly;

- g. references to “**development**” include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, up-gradation and other activities incidental thereto during the Construction Period, and “develop” shall be construed accordingly;
- h. any reference to any period of time shall mean a reference to that according to Indian standard time;
- i. any reference to day shall mean a reference to a calendar day;
- j. reference to a “**business day**” shall be construed as reference to a day (other than a Sunday) on which banks in the State are generally open for business;
- k. any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;
- l. references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Agreement;
- m. any reference to any period commencing “from” a specified day or date and “**till**” or “**until**” a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;
- n. the words importing singular shall include plural and vice versa;
- o. references to any gender shall include the other and the neutral gender;
- p. “**lakh**” means a hundred thousand (100,000) and “**crore**” means ten million (10,000,000);
- q. “**indebtedness**” shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;
- r. references to the “**winding-up**”, “**dissolution**”, “**insolvency**”, or

- “reorganization” of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganization, dissolution, arrangement, protection or relief of debtors;
- s. save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, licensee or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Sub-clause(s) shall not operate so as to increase liabilities or obligations of the Authority hereunder or pursuant hereto in any manner whatsoever;
  - t. any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or the Authority’s Engineer shall be valid and effective only if it is in writing under the hand of a duly authorized representative of such Party or the Authority’s Engineer, as the case may be, in this behalf and not otherwise;
  - u. the Schedules and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
  - v. references to Recitals, Articles, Clauses, Sub-clauses, Provisos or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses, Provisos and Schedules of or to this Agreement; reference to an Annex shall, subject to anything to the contrary specified therein, be construed as a reference to an Annex to the Schedule in which such reference occurs; and reference to a Paragraph shall, subject to anything to the contrary specified therein, be construed as a reference to a Paragraph of the Schedule or Annex, as the case may be, in which such reference appear; the damages payable by either Party to the other of them, as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the “**Damages**”);and
  - w. Time shall be of the essence in the performance of the Parties’ respective obligations. If any time period specified herein is extended for the reasons specified in the Agreement, such extended time shall also be of the essence.

1.2.2 Unless expressly provided otherwise in this Agreement, any Documentation

required to be provided or furnished by the Contractor to the Authority shall be provided free of cost and in three copies, and if the Authority is required to return any such Documentation with its comments and/or approval, it shall be entitled to retain two copies thereof.

1.2.3 The rule of construction, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.

1.2.4 Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act, 1897 shall not apply.

### **1.3 Measurements and arithmetic conventions**

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.

### **1.4 Priority of agreements and errors/discrepancies**

1.4.1 This Agreement, and all other agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:

1. this Agreement; and all other agreements and documents forming part hereof or referred to herein;  
i.e. this Agreement at (a) above shall prevail over the agreements and documents at (b).

1.4.2 Subject to the provisions of Clause 1.4.1, in case of ambiguities or discrepancies within this Agreement, the following shall apply:

- i. between two or more Clauses of this Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;
- ii. between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;
- iii. between any two Schedules, the Schedule relevant to the issue shall prevail;
- iv. between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;
- v. between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and

vi. between any value written in numerals and that in words, the latter shall prevail.

**1.5** Deleted

## Part II

### **Scope of the Project**



## ARTICLE 2

### SCOPE OF THE PROJECT

#### 2.1 Scope of the Project

- i. Under this Agreement, the scope of the Project (the “**Scope of the Project**”) shall be defined as scope of work as indicated in Invitation for Bids (IFB) with the Specifications and Standards set forth in RFP.
- ii. Performance and fulfillment of all other obligations of the Contractor in accordance with the provisions of this Agreement and matters incidental thereto or necessary for the performance of any or all of the obligations of the Contractor under this Agreement.

## ARTICLE 3

### OBLIGATIONS OF THE CONTRACTOR

#### 3.1 Obligations of the Contractor

- 3.1.1 Subject to and on the terms and conditions of this Agreement, the Contractor shall undertake the complete construction of the Project and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 3.1.2 The Contractor shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement.
- 3.1.3 Save and except as otherwise provided in this Agreement or Applicable Laws, as the case may be, the Contractor shall, in discharge of all its obligations under this Agreement, conform with and adhere to Good Industry Practice at all times.
- 3.1.4 The Contractor shall remedy any and all loss or damage to the Project, occurring on or after the Appointed Date and until the date of Provisional Certificate, with respect to the Works completed prior to the issuance of the Provisional Certificate and/or Completion Certificate, with respect to the Works referred to in the Punch List, at its own cost, save and except to the extent that any such loss or damage shall have arisen from any default of the Authority or on account of a Force Majeure Event in which case the provisions of Clause 19 shall apply.
- 3.1.5 The Contractor shall remedy any and all loss or damage to the Project during the Operation and maintenance period at its own cost, to the extent that such loss or damage shall have arisen out of the reasons specified in Clause 15.3.
- 3.1.6 The Contractor shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:
- a. make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining Applicable Permits set forth and obtain and keep in force and effect such Applicable Permits in conformity with Applicable Laws;
  - b. procure, as required, the appropriate proprietary rights, licences, agreements and permissions for Materials, methods, processes, know-how and systems used or incorporated into the Project;
  - c. make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by it or its Sub-contractors in connection with the performance of its obligations under this Agreement;
  - d. ensure and procure that its Sub-contractors comply with all Applicable

Permits and Applicable Laws in the performance by them of any of the Contractor's obligations under this Agreement;

- e. always act in a manner consistent with the provisions of this Agreement and not cause or fail to do any act, deed or thing, whether intentionally or otherwise, which may in any manner be violative of any of the provisions of this Agreement;
  - f. support, cooperate with and facilitate the Authority in the implementation and operation of the Project in accordance with the provisions of this Agreement;
  - g. ensure that the Contractor and its Sub-contractors comply with the safety and welfare measures for labour in accordance with Applicable Laws and Good Industry Practice;
  - h. keep, on the Site, a copy of this Agreement, publications named in this Agreement, any modified Drawings, Documents relating to the Project, and Change of Scope Orders and other communications sent under this Agreement, and provide access to all these documents at all reasonable times to the Authority's Engineer and its authorized personnel;
  - i. cooperate with other contractors employed by the Authority and personnel of any other public authority; and
  - j. not interfere unnecessarily or improperly with the convenience of the public, or the access to and use and occupation of all the existing facilities within the Right of Way, irrespective of whether they are public or in the possession of the Authority or of others.
- 3.1.7 The Contractor shall undertake all necessary superintendence to plan, arrange, direct, manage, inspect and test the Works.

**3.2 The bidder should not outsource the contract to the sub-contractor. An undertaking from the bidder to be submitted.**

**3.3 Obligations relating to employment of foreign nationals**

The Contractor acknowledges, agrees and undertakes that employment of foreign personnel by the Contractor and/or its Sub-contractors and their sub-contractors shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Contractor. Notwithstanding anything to the contrary contained in this Agreement, refusal of or inability to obtain any such permits and approvals by the Contractor or any of its Sub-contractors or their sub-contractors shall not constitute Force Majeure Event, and shall not in any manner excuse the Contractor from the performance and discharge of its obligations and liabilities under this Agreement.

### **3.4 Obligations relating to Contractor's personnel**

- 341 The Contractor shall ensure and procure that the personnel engaged by it or by its Sub-contractors for performance of its obligations under this Agreement are at all times appropriately qualified, skilled and experienced in their respective functions in conformity with Applicable Laws and Good Industry Practice.
- 342 The Authority's Engineer may, for reasons to be specified in writing, direct the Contractor to remove any member of the Contractor's or Sub-contractor's personnel from the Project. Provided that any such direction issued by the Authority's Engineer shall specify the reasons for the removal of such person.
- 343 The Contractor shall, on receiving a direction from the Authority's Engineer under the provisions of Clause 3.4.2, ensure and procure the removal of such person or persons from the Project with immediate effect. The Contractor shall further ensure that such persons have no further connection with the Project.

### **3.5 Obligations relating to advertisement on Project**

The Contractor shall not use the Project or any part thereof in any manner for branding or advertising purposes including for advertising any commercial product or services or companies.

### **3.6 Obligations relating to Contractor's care of the Works**

The Contractor shall bear full risk in and take full responsibility for the care of Works, and of Materials, goods and equipment for incorporation therein, on and from the Appointed Date and until the date of Provisional Certificate, with respect to the Works completed prior to the issuance of the Provisional Certificate, and/or Completion Certificate, with respect to the Works referred to in the Punch List, save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Authority.

### **3.7 Obligations relating to electricity, water and other services**

The Contractor shall be responsible for procuring of all power, water and other services that it may require for the Project.

### **3.8 Unforeseeable difficulties**

Except as otherwise specified in the Agreement:

- a. the Contractor accepts complete responsibility for having foreseen all difficulties and costs of successfully completing the Works;
- b. the Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs; and
- c. the Scheduled Completion Date shall not be adjusted to take account of any unforeseen difficulties or costs.

For the purposes of this Clause, unforeseeable difficulties include physical conditions like man-made or natural physical conditions including sub-surface and hydrological conditions which the Contractor encounters at the Site during execution of the Works.

## ARTICLE 4

### OBLIGATIONS OF THE AUTHORITY

#### 4.1 Obligations of the Authority

- 4.1.1 The Authority shall, at its own cost and expense, undertake, comply with and perform all its obligations set out in this Agreement or arising hereunder.
- 4.1.2 The Authority shall be responsible for the correctness of the Scope of the Project, Project Facilities, Specifications and Standards and the criteria for Testing of the completed Works.
- 4.1.3 The Authority shall, upon receiving the Performance Security under Clause 7.1.1, provide to the Contractor:
- a. The land for construction in accordance with the provisions of Clauses 8.2 and 8.3, within a period of 15 (fifteen) days from the date of this Agreement.
  - b. approval of the general arrangement drawings (the “GAD”) from BSCL authorities to enable the Contractor to start construction of Project in accordance with the Specifications and Standards, and subject to the terms and conditions specified in such approval, within a period of 30 (thirty) days from the Appointed Date; and
  - c. All environmental and forest clearances as required under Clause 4.3.
- 4.1.4 Deleted.
- 4.1.5 Notwithstanding anything to the contrary contained in this Agreement, the Parties expressly agree that the aggregate Damages payable under Clauses 4.1.4, 8.3 and 9.2 shall not exceed 3% (three percent) of the Contract Price. For the avoidance of doubt, the Damages payable by the Authority under the aforesaid Clauses shall not be additive if they arise concurrently from more than one cause but relate to the same part of the Project.
- 4.1.6 The Authority agrees to provide support to the Contractor and undertakes to observe, comply with and perform, subject to and in accordance with the provisions of this Agreement and Applicable Laws, the following:
- a) upon written request from the Contractor, and subject to the Contractor complying with Applicable Laws, provide reasonable support to the Contractor in procuring Applicable Permits required from any Government Instrumentality for implementation of the Project;
  - b) upon written request from the Contractor, provide reasonable assistance to the Contractor in obtaining access to all necessary infrastructure facilities and utilities, including water and electricity at rates and on terms no less favorable than those generally available to commercial customers

- receiving substantially equivalent services;
- c) procure that no barriers that would have a material adverse effect on Works are erected or placed on or about the Project by any Government Instrumentality or persons claiming through or under it, except for reasons of Emergency, national security or law and order;
  - d) not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;
  - e) support, cooperate with and facilitate the Contractor in the implementation of the Project in accordance with the provisions of this Agreement; and
  - f) upon written request from the Contractor and subject to the provisions of Clause 3.3, provide reasonable assistance to the Contractor and any expatriate personnel of the Contractor or its Sub-contractors to obtain applicable visas and work permits for the purposes of discharge by the Contractor or its Sub- contractors of their obligations under this Agreement and the agreements with the Sub-contractors.

#### **4.2 Deleted**

#### **4.3 Obligations relating to Environmental and Forest Clearances**

All the clearances shall be taken by selected bidder from the competent authority such as Ministry of Environment and Forest (MoEF)/ Central Pollution Control Board/ State Pollution Control Board etc. at their own cost.

## ARTICLE 5

### REPRESENTATIONS AND WARRANTIES

#### 5.1 Representations and warranties of the Contractor

The Contractor represents and warrants to the Authority that:

- a) it is duly organized and validly existing under the laws of India, and has full power and authority to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- b) it has taken all necessary corporate and other actions under Applicable Laws to authorize the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;
- c) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement will be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;
- d) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising there under including any obligation, liability or responsibility hereunder;
- e) the information furnished in the Bid and as updated on or before the date of this Agreement is true and accurate in all respects as on the date of this Agreement;
- f) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum and articles of association or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- g) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or inequity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Agreement;
- h) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse



effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;

- i) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a material adverse effect on its ability to perform its obligations under this Agreement;
- j) no representation or warranty by it contained herein or in any other document furnished by it to the Authority or to any Government Instrumentality in relation to Applicable Permits contains or will contain any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;
- k) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the contract or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Authority in connection there with;
- l) all information provided by the {selected bidder} in response to the Request for Qualification and Request for Proposals or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects;
- m) all undertakings and obligations of the Contractor arising from the Request for Qualification and Request for Proposals or otherwise shall be binding on the Contractor as if they form part of this Agreement; and
- n) Nothing contained in this Agreement shall create any contractual relationship or obligation between the Authority and any Sub-contractors, designers, consultants or agents of the Contractor.

## **5.2 Representations and warranties of the Authority**

The Authority represents and warrants to the Contractor that:

- a) it has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement;
- b) it has taken all necessary actions under Applicable Laws to authorize the execution, delivery and performance of this Agreement;
- c) it has the financial standing and capacity to perform its obligations under this Agreement;

- d) this Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- e) It has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on the Authority's ability to perform its obligations under this Agreement:
- f) it has complied with Applicable Laws in all material respects;
- g) it has good and valid right to the Site and has the power and authority to grant the site in respect thereof to the Contractor; and
- h) it shall have procured, as on the Appointed Date, site so that the Contractor can commence.

### **5.3 Disclosure**

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of either Party under this Agreement.

ARTICLE 6  
**DISCLAIMER**

**6.1 Disclaimer**

- 6.1.1 The Contractor acknowledges that prior to the execution of this Agreement, the Contractor has, after a complete and careful examination, made an independent evaluation of the Request for Qualification, Request for Proposals, Scope of the Project, Specifications and Standards, Site, local conditions, physical qualities of ground, subsoil and geology, traffic volumes, suitability and availability of access routes to the Site and all information provided by the Authority or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. Save as provided in Clause-4.1.2 and Clause-5.2, the Authority makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Contractor confirms that it shall have no claim whatsoever against the Authority in this regard.
- 6.1.2 The Contractor acknowledges and hereby accepts to have satisfied itself as to the correctness and sufficiency of the Contract Price.
- 6.1.3 The Contractor acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above and hereby acknowledges and agrees that the Authority shall not be liable for the same in any manner whatsoever to the Contractor, or any person claiming through or under any of them, and shall not lead to any adjustment of Contract Price or Scheduled Completion Date.
- 6.1.4 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above shall not vitiate this Agreement, or render it voidable.
- 6.1.5 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 6.1.1 above, that Party shall immediately notify the other Party, specifying the mistake or error.
- 6.1.6 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Contractor; and the Authority shall not be liable in any manner for such risks or the consequences thereof.

## ARTICLE 7

### 7.1 Performance Security

- 7.1.1 The Contractor shall, for the performance of its obligations hereunder, provide to the Authority, within 15 (Fifteen) days of the date of this LoI/LoA, an irrevocable and unconditional guarantee, for an amount equal to 3% (Three percent) (**As per Ministry of Finance, GOI Office Memorandum No. F.9/4/2020-PPD dated 12 Nov. 2020**) of the Contract Price, from a Bank in the form set forth in Annex-I of Schedule-F (the “**Performance Security**”). The Performance Security shall be valid until 30 (thirty) days of the expiry of the Operation and Maintenance Period specified in Clause 15.1.1. Until such time the Performance Security is provided by the Contractor pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security, the Authority shall release the Bid Security to the Contractor. For the avoidance of doubt, the Parties expressly agree that the Contractor shall provide, no later than 30 (thirty) days prior to the expiry of the Performance Security for the Operation and Maintenance Period specified in Clause 15.1.1, a Performance Security in respect of the extended Operation and Maintenance Period, as specified in Clause 15.1.2, for an amount equal to 3% (three percent) of the Contract Price.
- 7.1.2 Notwithstanding anything to the contrary contained in this Agreement, the Parties agree that in the event of failure of the Contractor to provide the Performance Security in accordance with the provisions of Clause 7.1.1 and within the time specified therein or such extended period as may be provided by the Authority, in accordance with the provisions of Clause 7.1.3, the Authority may encash the Bid Security and appropriate the proceeds thereof as Damages, and there upon all rights, privileges, claims and entitlements of the Contractor under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Contractor, and this Agreement shall be deemed to have been terminated by mutual agreement of the Parties.
- 7.1.3 In the event the Contractor fails to provide the Performance Security within 15 (Fifteen) days, it may seek extension of time for a period not exceeding a further 15 (fifteen) days on payment of Damages for such extended period in a sum calculated at the rate of 0.05% (zero point zero five percent) of the Contract Price

for each day until the Performance Security is provided.

- 7.1.4 Contractor will have to deposit additional performance guarantee for seriously unbalanced rate quoted by him at the time of agreement.

## **7.2 Extension of Performance Security**

The Contractor may initially provide the Performance Security for a period of 12 (twelve) months provided that it shall procure the extension of the validity of the Performance Security, as necessary, at least 2 (two) months prior to the date of expiry thereof. Upon the Contractor providing an extended Performance Security, the previous Performance Security shall be deemed to be released and the Authority shall return the same to the Contractor within a period of 7 (seven) business days from the date of submission of the extended Performance Security.

## **7.3 Appropriation of Performance Security**

- 7.3.1 Upon occurrence of a Contractor Default, the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate from the Performance Security the amounts due to it as Damages for the Contractor's Default.
- 7.3.2 Upon such encashment and appropriation from the Performance Security, the Contractor shall, within 30 (thirty) days thereof, replenish, in case of partial appropriation, to its original level the Performance Security, and in case of appropriation of the entire Performance Security provide a fresh Performance Security, as the case may be, and the Contractor shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the Authority shall be entitled to terminate the Agreement in accordance with Article 21. Upon such replenishment or furnishing of a fresh Performance Security, as the case may be, the Contractor shall be entitled to an additional Cure Period of 30 (thirty) days for remedying the Contractor Default, and in the event of the Contractor not curing its default within such Cure Period, the Authority shall be entitled to encash and appropriate such Performance Security as Damages, and to terminate this Agreement in accordance with Article 21.

## **7.4 Release of Performance Security**

The Authority shall release the Performance Security within 60 (sixty) days of the expiry of the Operation and Maintenance Period or the extended Operation and Maintenance Period, as the case may be, under this Agreement. Notwithstanding the aforesaid, the Parties agree that the Authority shall not be obliged to release the Performance Security until all Defects identified during the Operation and Maintenance Period as the case may be, have been rectified.

## **7.5 Retention Money**

- 75.1 Deleted.
- 752 Upon occurrence of a Contractor's Default, the Authority shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to appropriate the relevant amounts from the running account bill for such Contractor's Default.
- 753 Deleted.
- 754 Deleted.
- 755 The Parties agree that in the event of Termination of this Agreement, the Retention Money if any and the bank guarantees specified in this Clause7.5 shall be treated as if they are Performance Security and shall be reckoned as such for the purposes of Termination Payment under Clause21.6.

## ARTICLE 8

### SITE OF PROJECT

#### 8.1 The Site

The site of the Project (the “**Site**”) shall comprise the site described in respect of which the land shall be provided by the Authority to the Contractor. The Authority shall be responsible for acquiring and providing land on the Site in accordance with the [alignment] finalized by the Authority, free from all encroachments and encumbrances, and free access thereto for the execution of this Agreement.

Under the initiative of modernization of schools in Bhagalpur, following schools have been shortlisted for proposed renovation and improved structures: -

- i. Jhun Jhunwala Adarsh Balika Uchha Vidyalaya
- ii. Mokshada Girls High School
- iii. Rajkiya Balika Inter Vidyalaya
- iv. Rajkiya Intermediate Zila School
- v. Rajkiya Saro Sahu Madhya Vidyalaya

#### 8.2 Deleted

#### 8.3 Deleted.

#### 8.4 Deleted.

#### 8.5 Deleted.

#### 8.6 Deleted

#### 8.7 Deleted

#### 8.8 Geological and archaeological finds

It is expressly agreed that mining, geological or archaeological rights do not form part of this Agreement with the Contractor for the Works, and the Contractor hereby acknowledges that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest and that such rights, interest and property on or under the Site shall vest in and belong to the Authority or the concerned Government Instrumentality. The Contractor shall take all reasonable precautions to prevent its workmen or any

other person from removing or damaging such interest or property and shall inform the Authority forthwith of the discovery thereof and comply with such instructions as the Authority or the concerned Government Instrumentality may reasonably give for the removal of such property. For the avoidance of doubt, it is agreed that any reasonable expenses incurred by the Contractor hereunder shall be reimbursed by the Authority. It is also agreed that the Authority shall procure that the instructions hereunder are issued by the concerned Government Instrumentality within a reasonable period so as to enable the Contractor to continue its Works with such modifications as may be deemed necessary.



## ARTICLE 9

### UTILITIES AND TREES

**9.1 Deleted.**

**9.2 Deleted.**

**9.3 New utilities**

931 The Contractor shall allow, subject to such conditions as the Authority may specify, access to, and use of the Site for laying telephone lines, water pipes, electric cables or other public utilities. Where such access or use causes any financial loss to the Contractor, it may require the user of the Site to pay compensation or damages as per Applicable Laws. For the avoidance of doubt, it is agreed that use of the Site under this Clause-9.3 shall not in any manner relieve the Contractor of its obligation to construct the Project in accordance with this Agreement and any damage caused by such use shall be restored forthwith at the cost of the Authority.

932 In the event the construction of any Works is affected by a new utility or works undertaken in accordance with this Clause 9.3, the Contractor shall be entitled to a reasonable Time Extension as determined by the Authority's Engineer in accordance with the provisions of Clause10.4.

933 Deleted.

934 Deleted.

**9.4 Felling of trees**

The Authority shall assist the Contractor in obtaining the Applicable Permits for felling of trees to be identified by the Authority for this purpose if and only if such trees cause a Material Adverse Effect on the construction of the Project. The cost of such felling and of the compensatory plantation of trees, if any, shall be borne by the Selected Bidder. In the event of any delay in felling thereof for reasons beyond the control of the Contractor; it shall be excused for failure to perform any of its obligations hereunder if such failure is a direct consequence of delay in the felling of trees. The Parties hereto agree that the felled trees shall be deemed to be owned by the Authority and shall be disposed in such manner and subject to such conditions as the Authority may in its sole discretion deem appropriate. For the avoidance of doubt, the Parties agree that if any felling of trees result any period of delay in providing the Applicable Permits, the Contractor shall be entitled to Time Extension.

ARTICLE 10  
**CONSTRUCTION OF THE PROJECT**

**10.1 Obligations prior to commencement of Works**

10.1.1 Within 20 (twenty) days of the Appointed Date, the Contractor shall:

- i) appoint its representative, duly authorized to deal with the Authority in respect of all matters under or arising out of or relating to this Agreement;
- ii) appoint a service engineer (the “**Service Engineer**”) who will head the Contractor’s supply, installation and commissioning unit and shall be responsible for supply, installation and commissioning;
- iii) undertake and perform all such acts, deeds and things as may be necessary or required before commencement of Works under and in accordance with this Agreement, Applicable Laws and Applicable Permits; and
- iv) Make its own arrangements for quarrying of materials and procurement needed for the Project under and in accordance with Applicable Laws and Applicable Permits.

10.1.2 Deleted

10.1.3 Within 30 (thirty) days of the Appointed Date, the Contractor shall submit to the Authority a programme (the “Programme”) for construction of the Works, developed using networking techniques and giving the following details:

*Part I* Contractor’s organization for the Project, the general methods and arrangements for construction, environmental management plan, Quality Assurance Plan including traffic management and safety plan covering safety of users and workers during construction, Contractor’s key personnel, and equipment.

*Part II Programme* for completion of all stages of construction and Project Milestones of the Works as specified in Project Completion Schedule set forth in Schedule-I. The Programme shall include:

- i. the order in which the Contractor intends to carry out the Works, including the anticipated timing of design and stages of Works;
- ii. the periods for reviews under Clause 10.2; and
- iii. The sequence and timing of inspections and tests specified in this Agreement.

The Contractor shall submit a revised programme whenever the previous programme is inconsistent with the actual progress or with the Contractor's obligations.

*Part III Monthly cash flow forecast for the Project.*

For the avoidance of doubt, the Contractor acknowledges and agrees that the Authority may, within a period of 15 (fifteen) days of receipt of the Programme, convey its comments to the Contractor stating the modifications, if any, required for compliance with the provisions of this Agreement, and the Contractor shall carry out such modifications, to the extent required for conforming with the provisions of this Agreement.

10.1.4 For the avoidance of doubt, the sum of payments to be computed in respect of all the items of work shall not exceed the Contract Price, as may be adjusted in accordance with the provisions of this Agreement.

10.1.5 The Contractor shall appoint a safety consultant (the "**Safety Consultant**") to carry out safety audit in accordance with Applicable Laws and Good Industry Practice.

10.1.6 Deleted

**10.2 Deleted**

**10.3 Construction of the Project**

10.3.1 The Contractor shall construct the Project in conformity with the Drawings, Specifications and Standards set forth in this RFP. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works. The 12 (twelve) months from the Appointed Date shall be the scheduled completion date (the "**Scheduled Completion Date**") and the Contractor agrees and undertakes that the construction shall be completed on or before the Scheduled Completion Date, including any extension thereof.

10.3.2 The Contractor shall construct the Project in accordance with the Project Completion Schedule set forth in Schedule-I. In the event that the Contractor fails to achieve any Project Milestone set forth in Schedule-I, unless such failure has occurred due to Force Majeure or for reasons attributable to the Authority, it shall pay Damages to the Authority in a sum calculated from the date specified in Schedule -I and until such Project Milestone is achieved or the Works are completed; provided that if the period for any or all Project Milestones or the Scheduled Completion Date is extended in accordance with the provisions of this Agreement, the dates set forth in Schedule-I shall be deemed to be modified accordingly and the provisions of this Agreement shall apply as if Schedule-I has been amended as above; provided further that in the event the Works are completed within or before the Scheduled Completion Date including any Time

Extension, the Damages paid under this Clause 10.3.2 shall be refunded by the Authority to the Contractor, but without any interest thereon. For the avoidance of doubt, it is agreed that recovery of Damages under this Clause 10.3.2 shall be without prejudice to the rights of the Authority under this Agreement including the right of Termination thereof. The Parties further agree that Time Extension hereunder shall only be reckoned for and in respect of the affected Works as specified in Clause 10.4.2.

10.3.3 The Authority shall notify the Contractor of its decision to impose Damages in pursuance of the provisions of this Clause 10.3. Provided, however, that no deduction on account of Damages shall be effected by the Authority without taking into consideration the representation, if any, made by the Contractor within 20 (twenty) days of such notice. The Parties expressly agree that the total amount of Damages under Clause 10.3.2 shall not exceed 10% (ten percent) of the Contract Price.

#### **10.4 Extension of time for completion**

10.4.1 Without prejudice to any other provision of this Agreement for and in respect of extension of time, the Contractor shall be entitled to extension of time in the Project Completion Schedule (the “**Time Extension**”) to the extent that completion of any Project Milestone is or will be delayed by any of the following, namely:

- a) delay in providing site, environmental clearances specified in Clause 4.1.4;
- b) Change of Scope, unless an adjustment to the Scheduled Completion Date has been agreed under Article 13;
- c) occurrence of a Force Majeure Event;
- d) any delay, impediment or prevention caused by or attributable to the Authority, the Authority’s personnel or the Authority’s other contractors on the Site; and
- e) Any other cause or delay which entitles the Contractor to Time Extension in accordance with the provisions of this Agreement.

10.4.2 The Contractor shall, no later than 15 (fifteen) business days from the occurrence of an event or circumstance specified in Clause 10.4.1, inform the Authority by notice in writing, stating in reasonable detail with supporting particulars, the event or circumstances giving rise to the claim for Time Extension in accordance with the provisions of this Agreement. Provided that the period of 15 (fifteen) business days shall be calculated from the date on which the

Contractor became aware, or should have become aware, of the occurrence of such an event or circumstance.

Provided further that notwithstanding anything to the contrary contained in this Agreement, Time Extension shall be due and applicable only for the Works which are affected by the aforesaid events or circumstances and shall not in any manner affect the Project Completion Schedule for and in respect of the Works which are not affected thereby.

10.4.3 In the event of the failure of the Contractor to issue to the Authority's Engineer a notice in accordance with the provisions of Clause 10.4.2 within the time specified therein, the Contractor shall not be entitled to any Time Extension and shall forfeit its right to any such claims in future. For the avoidance of doubt, in the event of failure of the Contractor to issue notice as specified in this Clause 10.4.3, the Authority shall be discharged from all liability in connection therewith.

10.4.4 The Authority's Engineer shall, on receipt of a claim in accordance with the provisions of Clause 10.4.2, examine the claim expeditiously within the time frame specified herein. In the event the Authority's Engineer requires any clarifications to examine the claim, the Authority's Engineer shall seek the same within 15 (fifteen) days from the date of receiving the claim. The Contractor shall, on the receipt of the communication of the Authority's Engineer requesting for clarification, furnish the same to the Authority's Engineer within 10 (ten) days thereof. The Authority's Engineer shall, within a period of 30 (thirty) days from the date of receipt of such clarifications, forward in writing to the Contractor its determination of Time Extension. For the avoidance of doubt, the Parties agree that the Authority's Engineer shall, in accordance with the provisions of this Agreement, notify the Contractor of the aforesaid Time Extension no later than 60 (sixty) days from the date of receipt of the Contractor's claim for Time Extension.

Provided that when determining each extension of time under this Clause 10.4, the Authority's Engineer shall review previous determinations and may increase, but shall not decrease, the total Time Extension.

10.4.5 If the event or circumstance giving rise to the notice has a continuing effect:

- f) the detailed claim shall be considered as interim;
- g) the Contractor shall, no later than 10 (ten) days after the close of each month, send further interim claims specifying the accumulated delay, the extension of time claimed, and such further particulars as the Authority's Engineer may reasonably require; and
- h) the Contractor shall send a final claim within 30 (thirty) days

after the effect of the event or the circumstances.

Upon receipt of the claim hereunder, the Authority's Engineer shall examine and determine the same in accordance with the provisions of Clause 10.4.4 within a period of 60 (sixty) days of the receipt thereof.

### **10.5 Incomplete Works**

In the event the Contractor fails to complete the Works in accordance with the Project Completion Schedule, including any Time Extension granted under this Agreement, the Contractor shall endeavor to complete the balance work expeditiously and shall pay Damages to the Authority in accordance with the provisions of Clause 10.3.2 for delay of each month until the Works are completed in accordance with the provisions of this Agreement. Recovery of Damages under this Clause shall be without prejudice to the rights of the Authority under this Agreement including the right to termination under Clause-21.1.

## ARTICLE 11

### QUALITY ASSURANCE, MONITORING AND SUPERVISION

#### 11.1 Quality of Materials and workmanship

- 11.1.1 The Contractor shall ensure that the Construction, Materials and workmanship are in accordance with the requirements specified in this Agreement, Specifications and Standards and Good Industry Practice.
- 11.1.2 The Contractor warrants that all Materials shall be new, unused, not reconditioned and in conformity with Specification and Standards, Applicable Laws and Good Industry Practice, and that the Contractor shall not use any materials which are generally recognized as being deleterious under Good Industry Practice.

#### 11.2 Quality control system

- 11.2.1 The Contractor shall establish a quality control mechanism to ensure compliance with the provisions of this Agreement (the “**Quality Assurance Plan**” or “**QAP**”).
- 11.2.2 The Contractor shall, within 30 (thirty) days of the Appointed Date, submit to the Authority’s Engineer its Quality Assurance Plan which shall include the following:
- i) organization, duties and responsibilities, procedures, inspections and documentation;
  - ii) quality control mechanism including sampling and testing of Materials, test frequencies, standards, acceptance criteria, testing facilities, reporting, recording and interpretation of test results, approvals, check list for site activities, and proforma for testing and calibration in accordance with the Specifications and Standards and Good Industry Practice; and
  - iii) Internal quality audit system.  
The Authority’s Engineer shall convey its comments to the Contractor within a period of 21 (twenty-one) days of receipt of the QAP stating the modifications, if any, required, and the Contractor shall incorporate those in the QAP to the extent required for conforming with the provisions of this Clause 11.2.
- 11.2.3 The Contractor shall procure all documents, apparatus and instruments, fuel, consumables, water, electricity, labour, Materials, samples, and qualified personnel as are necessary for examining and testing the Project Assets, Materials and workmanship in accordance with the Quality Assurance Plan.
- 11.2.4 The cost of testing of Construction, Materials and workmanship under this Article 11 shall be borne by the Contractor.

#### 11.3. Methodology

The Contractor shall, at least 15 (fifteen) days prior to the commencement of work, submit to the Authority's Engineer for review the methodology proposed to be adopted for executing the Works, giving details of equipment to be deployed, traffic management and measures for ensuring safety. The Authority's Engineer shall complete the review and convey its comments, if any, to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed methodology from the Contractor.

#### **11.4. Inspection and technical audit by the Authority**

The Authority or any representative authorized by the Authority in its behalf shall inspect and review the progress and quality of the Works and issue appropriate directions to the Contractor for taking remedial action in the event the Works are not in accordance with the provisions of this Agreement.

#### **11.5 External technical audit**

At any time during construction, the Authority may appoint an external technical auditor to conduct an audit of the quality of the Works. The findings of the audit, to the extent accepted by the Authority, shall be notified to the Contractor and the Authority's Engineer for taking remedial action in accordance with this Agreement. The Contractor shall provide all assistance as may be required by the auditor in the conduct of its audit hereunder. Notwithstanding anything contained in this Clause 11.5, the external technical audit shall not affect any obligations of the Contractor or the Authority's Engineer under this Agreement.

#### **11.6 Inspection of construction records**

The Authority shall have the right to inspect the records of the Contractor relating to the Works.

#### **11.7 Monthly progress reports**

During the Construction Period, the Contractor shall, no later than 10 (ten) days after the close of each month, furnish to the Authority's Engineer a monthly report on the progress of Works and shall promptly give such other relevant information as may be required by the Authority's Engineer.

#### **11.8 Inspection**

11.8.1 The Authority's Engineer and its authorized representative shall at all times:

- iv) have full access to all parts of the Site and to all places from which natural Materials are being obtained for use in the Works; and
- v) During production, manufacture and construction at the Site and at the place of production, been titled to examine, inspect, measure and test the Materials and workmanship, and to check the progress of manufacture of Materials.



11.8.2 The Contractor shall give the Authority's Engineer and its authorized agents access, facilities and safety equipment for carrying out their obligations under this Agreement.

11.8.3 The Authority's Engineer shall submit a monthly inspection report (the "**Inspection Report**") to the Authority and the Contractor bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. For the avoidance of doubt, such inspection or submission of Inspection Report by the Authority's Engineer shall not relieve or absolve the Contractor of its obligations and liabilities under this Agreement in any manner whatsoever.

## **11.9 Samples**

The Contractor shall submit the following samples of Materials and relevant information to the Authority's Engineer for review:

- vi) manufacturer's test reports and standard samples of manufactured Materials; and
- vii) Samples of such other Materials as the Authority's Engineer may require.

## **11.10 Tests**

11.10.1 For determining that the Works conform to the Specifications and Standards, the Authority's Engineer shall require the Contractor to carry out or cause to be carried out tests, at such time and frequency and in such manner as specified in this Agreement, and in accordance with Good Industry Practice for quality assurance. The Contractor shall, with due diligence, carry out all the tests in accordance with the Agreement and furnish the results thereof to the Authority's Engineer. Of the total tests for each category or type to be undertaken by the Contractor under the provisions of this Agreement and Good Industry Practice, the Authority's Engineer shall (a) carry out or cause to be carried out, test checks equal to about 10% (ten percent) of the number of the tests required to be undertaken by the Contractor; and (b) witness or participate in at least 10% (ten percent) of the number of such tests conducted or caused to be conducted by the Contractor.

11.10.2 In the event that results of any tests conducted under this Clause 11.10 establish any Defects or deficiencies in the Works, the Contractor shall carry out remedial measures and furnish a report to the Authority's Engineer in this behalf. The Authority's Engineer shall require the Contractor to carry out or cause to be carried out tests to determine that such remedial measures have brought the Works into compliance with the Specifications and Standards, and the procedure shall be repeated until such Works conform to the Specifications and Standards. For the avoidance of doubt, the cost of such tests and the remedial measures in pursuance thereof shall be solely borne by the Contractor.

### **11.11 Examination of work before covering up**

In respect of the work which the Authority's Engineer is entitled to examine, inspect, measure or test before it is covered up or put out of view or any part of the work is placed thereon, the Contractor shall give notice to the Authority's Engineer whenever any such work is ready and before it is covered up. The Authority's Engineer shall then either carry out the examination, inspection or testing without unreasonable delay, or promptly give notice to the Contractor that the Authority's Engineer does not require to do so. Provided, however, that if any work is of a continuous nature where it is not possible or prudent to keep it uncovered or incomplete, the Contractor shall notify the schedule of carrying out such work to give sufficient opportunity, not being less than 3 (three) business days' notice, to the Authority's Engineer to conduct its inspection, measurement or test while the work is continuing. Provided further that in the event the Contractor receives no response from the Authority's Engineer within a period of 3 (three) business days from the date on which the Contractor's notice hereunder is delivered to the Authority's Engineer, the Contractor shall be entitled to assume that the Authority's Engineer would not undertake the said inspection.

### **11.12 Rejection**

11.12.1 If, as a result of an examination, inspection, measurement or testing, any Plant, Material, design or workmanship is found to be defective or otherwise not in accordance with the provisions of this Agreement, the Authority's Engineer may reject such Plant, Material, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the Defect and ensure that the rejected it recompiles with the requirements of this Agreement.

11.12.2 If the Authority's Engineer requires the Plant, Material, design or workmanship to be retested, the tests shall be repeated on the same terms and conditions, as applicable in each case. If the rejection and retesting cause the Authority to incur any additional costs, such costs shall be recoverable by the Authority from the Contractor and may be deducted by the Authority from any monies due to be paid to the Contractor.

11.12.3 The Contractor shall not be entitled to any extension of time on account of rectifying any Defect or retesting as specified in this Clause 11.12.

11.12.4 No examination, inspection, measurement or testing of any Plant, Material, design or workmanship by the Authority's Engineer or its failure to convey its observations or to examine, inspect, measure or test shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Authority be liable for the same in any manner.

### **11.13 Remedial work**

11.13.1 Notwithstanding any previous test or certification, the Authority's Engineer may instruct the Contractor to:

1. remove from the Site and replace any Plant or Materials which are not in accordance with the provisions of this Agreement;
2. remove and re-execute any work which is not in accordance with the provisions of this Agreement and the Specification and Standards; and
3. execute any work which is urgently required for the safety of the Project, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work which is required on account of a Force Majeure Event, the provisions of Clause 19.6 shall apply.

11.13.2 If the Contractor fails to comply with the instructions issued by the Authority's Engineer under Clause 11.13.1, within the time specified in the Authority's Engineer's notice or as mutually agreed, the Authority's Engineer may advise the Authority to have the work executed by another agency. The cost so incurred by the Authority for undertaking such work shall, without prejudice to the rights of the Authority to recover Damages in accordance with the provisions of this Agreement, be recoverable from the Contractor and may be deducted by the Authority from any monies due to be paid to the Contractor.

#### **11.14 Delays during construction**

Without prejudice to the provisions of Clause 10.3.2, in the event the Contractor does not achieve any of the Project Financial Progress Milestones within the time period stipulated in Schedule I then in addition to the penalty deductions from running account bills the Authority's Engineer shall have reasonably determined that the rate of progress of Works is such that Completion of the Project is not likely to be achieved by the end of the Scheduled Completion Date, it may notify the same to the Contractor, and the Contractor shall, within 15 (fifteen) days of such notice, by a communication inform the Authority's Engineer in reasonable detail about the steps it proposes to take to expedite progress and the period within which it shall achieve the Project Completion Date.

#### **11.15 Quality control records and Documents**

The Contractor shall hand over to the Authority's Engineer a copy of all its quality control records and documents before the Completion Certificate is issued pursuant to Clause-12.2.

#### **11.16 Video recording**

During the Construction Period, the Contractor shall provide to the Authority for every calendar quarter, a video recording, which will be compiled into a 3 (three) hour digital video disc or any substitute thereof, covering the status and progress of Works in that quarter. The video recording shall be provided to the Authority no later than 15 (fifteen) days after the close of each quarter after the Appointed Date.

#### **11.17 Suspension of unsafe Construction Works**

- 11.17.1 Upon recommendation of the Authority's Engineer to this effect, or on its own volition in cases of emergency or urgency, the Authority may by notice require the Contractor to suspend forthwith the whole or any part of the Works if, in the reasonable opinion of the Authority's Engineer or the Authority, as the case may be, such work threatens the safety of the Users and or other persons on or about the Project. Provided, however, that in case of an emergency, the Authority may *suo moto* issue the notice referred to herein above.
- 11.17.2 The Contractor shall, pursuant to the notice under Clause 11.17.1, suspend the Works or any part thereof for such time and in such manner as may be specified by the Authority and thereupon carry out remedial measures to secure the safety of suspended works, the Users, other persons and vehicles on or about the Project including pedestrians. The Contractor may by notice require the Authority's Engineer to inspect such remedial measures forthwith and make a report to the Authority recommending whether or not the suspension hereunder may be revoked. Upon receiving the recommendations of the Authority's Engineer, the Authority shall either revoke such suspension or instruct the Contractor to carry out such other and further remedial measures as may be necessary in the reasonable opinion of the Authority, and the procedure set forth in this Clause 11.17 shall be repeated until the suspension hereunder is revoked.
- 11.17.3 Subject to the provisions of Clause 19.6, all reasonable costs incurred for maintaining and protecting the Works or part thereof during the period of suspension (the "Preservation Costs"), shall be borne by the Contractor; provided that if the suspension has occurred as a result of any breach of this Agreement by the Authority, the Preservation Costs shall be borne by the Authority.
- 11.17.4 If suspension of Works is for reasons not attributable to the Contractor, the Authority's Engineer shall determine any Time Extension to which the Contractor is reasonably entitled in accordance with the provisions of Clause 10.4.

## ARTICLE 12

### COMPLETION CERTIFICATE

#### **12.1 Tests on completion**

12.1.1 No later than 30 (thirty) days prior to the likely completion of the Project, or a Section thereof, the Contractor shall notify the Authority's Engineer of its intent to subject the Project or a Section thereof, to Tests. The date and time of each of the Tests shall be determined by the Authority's Engineer in consultation with the Contractor, and notified to the Authority who may designate its representative to witness the Tests. The Contractor shall either conduct the Tests as directed by the Authority's Engineer or provide such assistance as the Authority's Engineer may reasonably require for conducting the Tests. For the avoidance of doubt, the Parties agree that in the event of the Contractor and the Authority's Engineer failing to mutually agree on the dates for conducting the Tests, the Contractor shall fix the dates by giving not less than 10 (ten) days' notice to the Authority's Engineer.

12.1.2 All Tests shall be conducted in accordance with Schedule-J at the cost and expense of the Contractor. The Authority's Engineer shall observe, monitor and review the results of the Tests to determine compliance of the Project or a Section thereof, with Specifications and Standards and if it is reasonably anticipated or determined by the Authority's Engineer during the course of any Test that the performance of the Project or Section or any part thereof, does not meet the Specifications and Standards, it shall have the right to suspend or delay such Test and require the Contractor to remedy and rectify any Defect or deficiency. Upon completion of each Test, the Authority's Engineer shall provide to the Contractor and the Authority copies of all Test data including detailed Test results. For the avoidance of doubt, the Parties expressly agree that the Authority's Engineer may require the Contractor to carry out or cause to be carried out additional Tests, in accordance with Good Industry Practice, for determining the compliance of the Project or Section thereof with the Specifications and Standards.

#### **12.2 Provisional Certificate**

12.2.1 Subject to the provisions of Clause 12.2.5, upon completion of all Works forming part of the Project, save and except the Works for which Time

Extension has been granted under Clause 10.5, the Authority's Engineer shall, at the request of the Contractor, issue a provisional certificate of completion substantially in the form set forth in Schedule-K (the "**Provisional Certificate**") if the Tests for and in respect of the completed Works are successful. The Provisional Certificate shall have appended thereto a list of outstanding items of work (the "**Punch List**") that need to be completed in accordance with the provisions of this Agreement. The Contractor undertakes to complete the minor outstanding items of works in respect of those Sections of the Project for which the Provisional Certificate has been issued, within a period of 30 (thirty) days of the date of Provisional Certificate, and those parts of the Works in respect of which Time Extension has been granted, within the extended period thereof. For the avoidance of doubt, the Parties agree that the Punch List shall include all Works for which Time Extension has been granted and shall also include any minor outstanding items of work forming part of the completed Sections if such works do not materially affect the use of the completed Sections for their intended purpose. The Parties further agree that Provisional Certificate shall not be issued if the completed Works cannot be safely and reliably placed in service of the Users thereof.

12.2.2 Upon issue of Provisional Certificate, the provisions of Article 15 shall apply to the completed parts of the Project and the property and ownership of all such completed Works shall vest in the Authority.

12.2.3 If the Authority's Engineer determines that the Project or any completed part thereof does not conform to the provisions of this Agreement and cannot be safely and reliably placed in operation, it shall forthwith make a report in this behalf and send copies thereof to the Authority and the Contractor and withhold issuance of the Provisional Certificate until the Defects or deficiencies are rectified by the Contractor and Tests are successful in accordance with this Article 12.

12.2.4 Notwithstanding anything to the contrary contained in Clause 12.2.3, the Authority may, at any time after receiving a report from the Authority's Engineer under that Clause, direct the Authority's Engineer to issue a Provisional Certificate under Clause 12.2.1 and such direction shall be complied forthwith.

12.2.5 No Provisional Certificate shall be issued under the provisions of this Clause 12.2 until the Contractor has received at least 80% (eighty percent) of the amount arrived at after reducing the Item Rate specified in Clause-17.1.1 by the amount attributable to works which have been withdrawn under the provisions of Clause-8.3.3. For the avoidance of doubt and by way of illustration, the Parties agree that if the Contract Price specified in Clause 17.1.1 is Rs.105 cr. (Rs. one hundred and five crore) and the works withdrawn under Clause 8.3.3

have a value of Rs.5cr. (Rs. five crore), a Provisional Certificate shall not be issued until valid claims for payment of an amount of Rs.80 cr. (Rs. eighty crore) have been submitted by the Contractor in accordance with the provisions of this Agreement. It is further agreed that all price adjustments made in pursuance of Clause 17.10 shall not be reckoned for computation of the claims for payments referred to in this Clause-12.2.5. It is also agreed that any Change of Scope effected within 30(thirty) days of the Appointed Date shall be reckoned for the purposes of determining the Contract Price hereunder.

### **12.3 Completion of remaining Works**

All items in the Punch List shall be completed by the Contractor in accordance with the provisions of this Agreement. For any delay in their completion other than for the reasons attributable to the Authority or due to Force Majeure, the Authority shall be entitled to recover Damages from the Contractor in accordance with the provisions of Clause 10.3.2 of this Agreement.

### **12.4 Completion Certificate**

12.4.1 Upon completion of all Works, including the items specified in the Punch List, and the Authority's Engineer determining the Tests to be successful, it shall forthwith issue to the Contractor and the Authority a certificate substantially in the form set forth in Schedule-K (the "**Completion Certificate**").

12.4.2 Upon receiving the Completion Certificate, the Contractor shall remove its equipment, materials, debris and temporary works from the Site within a period of 30 (thirty) days thereof, failing which the Authority may remove or cause to be removed, such equipment, materials, debris and temporary works and recover from the Contractor an amount equal to 120% (one hundred and twenty percent) of the actual cost of removal incurred by the Authority.

12.4.3 Without prejudice to the obligations of the Contractor specified in Article 15, the property and ownership of all the completed works forming part of the Project shall vest in the Authority.

### **12.5 Rescheduling of Tests**

If the Authority's Engineer certifies to the Authority and the Contractor that it is unable to issue the Completion Certificate or Provisional Certificate, as the case maybe, because of events or circumstances on account of which the Tests could not be held or had to be suspended, the Contractor shall be entitled to re-schedule the Tests and hold the same as soon as reasonably practicable.

## ARTICLE 13

### CHANGE OF SCOPE

#### 13.1 Change of Scope

13.1.1 The Authority may, notwithstanding anything to the contrary contained in this Agreement, require the Contractor to make modifications or alterations to the Works (“**Change of Scope**”) 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 Article 13.

13.1.2 Change of Scope shall mean:

- 1) change in specifications of any item of Works;
- 2) omission of any work from the Scope of the Project except under Clause 8.3.3; provided that, subject to Clause 13.5, the Authority shall not omit any work under this Clause in order to get it executed by any other entity; or
- 3) Any additional work, Plant, Materials or services which are not included in the Scope of the Project, including any associated Tests on completion of construction.

13.1.3 If the Contractor determines at any time that a Change of Scope will, if adopted, (i) Accelerate completion, (ii) reduce the cost to the Authority of executing, maintaining or operating the Project, (iii) improve the efficiency or value to the Authority of the completed Project, or (iv) otherwise be of benefit to the Authority, it shall prepare a proposal with relevant details at its own cost. The Contractor shall submit such proposal, supported with the relevant details including the amount of reduction in the Contract Price, if any, to the Authority to consider such Change of Scope. The Authority shall, within 15 (fifteen) days of receipt of such proposal, either accept such Change of Scope with modifications, if any, and initiate proceedings therefore in accordance with this Article 13 or reject the proposal and inform the Contractor of its decision. For the avoidance of doubt, the Parties agree that the Contractor shall not undertake any Change of Scope without a Change of Scope Order being issued by the Authority, save and except any Works necessary for meeting any Emergency.

#### 13.2 Procedure for Change of Scope

13.2.1 In the event of the Authority determining that a Change of Scope is necessary, it may direct the Authority’s Engineer to issue to the Contractor a notice specifying in reasonable detail the works and services contemplated there under (the “**Change of Scope Notice**”).



13.2.2 Upon receipt of a Change of Scope Notice, the Contractor shall, with due diligence, provide to the Authority and the Authority's Engineer such information as is necessary, together with preliminary documentation in support of:

- a) the impact, if any, which the Change of Scope is likely to have on the Project Completion Schedule if the works or services are required to be carried out during the Construction Period; and
- b) the options for implementing the proposed Change of Scope and the effect, if any, each such option would have on the costs and time thereof, including the following details:
  - c) break down of the quantities, unit rates and cost for different items of work;
  - d) deleted
  - e) Proposed modifications, if any, to the Project Completion Schedule of the Project. For the avoidance of doubt, the Parties expressly agree that, subject to the provisions of Clause 13.4.2, the Contract Price shall be increased or decreased, as the case may be, on account of Change of Scope.

13.2.3 The Contractor's quotation of costs for the Change of Scope shall be determined on the following principles:

- a) For works of similar nature compared to the Works being executed, the quotation shall be based on the rate for the item of work inclusive of all labour, Materials, equipment, incidentals, overheads and profit derived in accordance with the provisions of Clause 17.3; and the price adjustment in accordance with Clause 17.8 shall apply to the rates so worked out.
- b) For works not similar in nature to the Works being executed, the cost of work shall be derived on the basis of Bihar SOR Standard Data Book.

13.2.4 Upon reaching an agreement, the Authority shall issue an order (the “**Change of Scope Order**”) requiring the Contractor to proceed with the performance thereof. In the event that the Parties are unable to agree, the Authority may:

- c) Issue a Change of Scope Order requiring the Contractor to proceed with the performance thereof at the rates and conditions approved by the Authority till the matter is resolved in accordance with Article 24; or
- d) Proceed in accordance with Clause 13.5.

13.2.5 The provisions of this Agreement, in so far as they relate to Works and Tests, shall apply *mutatis mutandis* to the works undertaken by the Contractor under this Article 13.

### 13.3 Payment for Change of Scope

Payment for Change of Scope shall be made in accordance with the payment schedule specified in the Change of Scope Order.

#### **13.4 Restrictions on Change of Scope**

- 13.4.1 No Change of Scope shall be executed unless the Authority has issued the Change of Scope Order save and except any Works necessary for meeting any Emergency.
- 13.4.2 Unless the Parties mutually agree to the contrary, the total value of all Change of Scope Orders shall not exceed 10% (ten percent) of the Contract Price.
- 13.4.3 Notwithstanding anything to the contrary in this Article 13, no change arising from any default of the Contractor in the performance of its obligations under this Agreement shall be deemed to be Change of Scope, and shall not result in any adjustment of the Contract Price or the Project Completion Schedule.

#### **13.5 Power of the Authority to undertake works**

- 13.5.1 In the event the Parties are unable to agree to the proposed Change of Scope Orders in accordance with Clause 13.2, the Authority may, after giving notice to the Contractor and considering its reply thereto, award such works or services to any person on the basis of open competitive bidding from amongst bidders who are pre-qualified for undertaking the additional work; provided that the Contractor shall have the option of matching the first ranked bid in terms of the selection criteria, subject to payment of 2% (two percent) of the bid amount to the Authority, and there upon securing the award of such works or services. For the avoidance of doubt, it is agreed that the Contractor shall be entitled to exercise such option only if it has participated in the bidding process and its bid does not exceed the first ranked bid by more than 10% (ten per cent) thereof. It is also agreed that the Contractor shall provide assistance and cooperation to the person who undertakes the works or services hereunder, but shall not be responsible for rectification of any Defects in works carried out by other agencies. For the avoidance of doubt, the Authority acknowledges and agrees that it shall not undertake any works or services under this Clause 13.5.1 if such works or services cause a Material Adverse Effect on the Contractor.
- 13.5.2 The works undertaken in accordance with this Clause 13.5 shall conform to the Specifications and Standards and shall be carried out in a manner that minimizes disruption to the Project. The provisions of this Agreement, in so far as they relate to Works and Tests, shall apply *mutatis mutandis* to the works carried out under this Clause 13.5.

ARTICLE 14 - Deleted

## ARTICLE 15

### **Operation and Maintenance Period**

The Contractor shall be responsible for all the Defects and deficiencies, except usual wear and tear in the Project or any Section thereof, till the expiry of the Operation and Maintenance Period.

15.1.1 Deleted.

#### **15.2 Remedy and rectification of Defects and deficiencies**

Without prejudice to the provisions of Clause 15.2 the Contractor shall repair or rectify all Defects and deficiencies observed by the Authority's Engineer during the Operation and Maintenance Period within a period of 15 (fifteen) days from the date of notice issued by the Authority's Engineer in this behalf, or within such reasonable period as may be determined by the Authority's Engineer at the request of the Contractor, in accordance with Good Industry Practice.

#### **15.3 Cost of remedying Defects**

For the avoidance of doubt, any repair or rectification undertaken in accordance with the provisions of Clause 15.2, including any additional tests, shall be carried out by the Contractor at its own risk and cost, to the extent that such rectification or repair is attributable to:

- a) the design of the Project;
- b) Works, Materials or workmanship not being in accordance with this Agreement and the Specifications and Standards;
- c) improper maintenance during construction of the Project by the Contractor; or
- d) Failure by the Contractor to comply with any other obligation under this Agreement.

#### **15.4 Contractor's failure to rectify Defects**

In the event that the Contractor fails to repair or rectify such Defect or deficiency within the period specified in Clause 15.2, the Authority shall be entitled to get the same repaired, rectified or remedied at the Contractor's cost so as to make the Project conform to the Specifications and Standards and the provisions of this Agreement. All costs consequent thereon shall, after due consultation with the Authority and the Contractor, be determined by the Authority's Engineer. The cost so determined, and an amount equal to 20% (twenty percent) of such cost as Damages, shall be recoverable by the Authority from the Contractor and may be deducted by the Authority from any monies due to the Contractor.

#### **15.5 Contractor to search cause**

15.5.1 The Authority's Engineer may instruct the Contractor to examine the cause of any Defect in the Works or part thereof before the expiry of the Operation and Maintenance Period.

15.5.2 In the event any Defect identified under Clause 15.5.1 is attributable to the Contractor, the Contractor shall rectify such Defect within the period specified by the Authority's Engineer, and shall bear the cost of the examination and rectification of such Defect.

15.5.3 In the event such Defect is not attributable to the Contractor, the Authority's Engineer shall, after due consultation with the Authority and the Contractor, determine the costs incurred by the Contractor on such examination and notify the same to the Contractor, with a copy to the Authority, and the Contractor shall be entitled to payment of such costs by the Authority.

## **15.6 Extension of Operation and Maintenance Period**

15.6.1 The Operation and Maintenance Period shall be deemed to be extended till the identified Defects under Clause 15.2 have been remedied.

15.6.2 Any Materials or Works with Operation and Maintenance Period identified under Clause 15.2 and replaced or repaired during the Operation and Maintenance Period or the extended Operation and Maintenance Period, as the case may be, would be further warranted for a period of twelve (12) months from the date of completion of such repair or replacement.

15.6.3 The Contractor shall upon termination or expiry of this Agreement, or upon expiry of the Operation and Maintenance Period, assign any outstanding benefit in respect of any subcontract or any warranty from any subcontractor, to the Authority or to such other person as the Authority may direct.

## ARTICLE 16

### **AUTHORITY'S ENGINEER**

#### **16.1 Appointment of the Authority's Engineer**

- 16.1.1 The Authority shall appoint the Authority's Engineer for the project.
- 16.1.2 The duties and functions of the Authority's Engineer shall be intimated to the contractor by the Authority after the date of agreement.

## Part IV

### **Financial Covenants**

## ARTICLE 17

### PAYMENTS

#### 17.1 Contract Price

17.1.1 The Authority shall make payments to the Contractor for the Works on the basis of the item rate accepted by the Authority in consideration of the obligations specified in this Agreement for an amount of Rs. \*\*\*\*\* (Rs. \*\*\*\*\*) (the “**Contract Price**”), which shall be subject to adjustments in accordance with the provisions of this Agreement. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until issue of Completion Certificate.

17.1.2 The Contract Price includes all duties, taxes, royalty, and fees that may be levied in accordance with the laws and regulations in force as on the Base Date on the Contractor’s equipment, Plant, Materials and supplies acquired for the purpose of this Agreement and on the Works undertaken under this Agreement. Nothing in this Agreement shall relieve the Contractor from its responsibility to pay any tax including any tax that may be levied in India on profits made by it in respect of this Agreement.

17.1.3 The Contract Price shall not be adjusted for any change in duties, taxes etc. specified in Clause 17.1.2 above, save and except as specified in Clauses 17.8 and 17.13.

17.1.4 The Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs, unless otherwise provided for in this Agreement.

17.1.5 Unless otherwise specified in this Agreement, the Contract Price covers all the Contractor’s obligations for the Works under this Agreement and all things necessary for the Construction thereof and for the rectification of any Defects in the Project.

17.1.6 All payments under this Agreement shall be made in Indian Rupees.

#### 17.2 Advance Payment

17.2.1 The Authority shall make an advance payment (the “**Advance Payment**”), equal to 10% (ten percent) of the Contract Price, for mobilization expenses and for acquisition of equipment. The Advance Payment shall carry simple interest at the rate of 10% (Ten per cent) per annum and shall be made in two equal installments.

17.2.2 The Contractor may apply to the Authority for the 1<sup>st</sup> (first) installment of the Advance Payment at any time after the Appointed Date, along with an irrevocable and unconditional guarantee from a Bank for an amount equivalent to 110% (one hundred and ten per cent) of such installment, substantially in the form provided at Annex-III of Schedule-F, to remain effective till the complete and full repayment of such installment and any interest thereon.

17.2.3 At any time, after 30 (thirty) days from the Appointed Date, the Contractor may



apply to the Authority for the 2<sup>nd</sup>(second) installment of the Advance Payment along with an irrevocable and unconditional guarantee from a Bank for an amount equivalent to 110% (one hundred and ten percent) of such installment and furnished a utilization certificate of 1<sup>st</sup> mobilization instalment, substantially in the form provided at Annex-III of Schedule-F, to remain effective till the complete and full repayment of such installment and any interest thereon.

17.2.4 The installments of Advance Payment shall be paid by the Authority to the Contractor within 15 (fifteen) days of the receipt of its respective requests in accordance with the provisions of this Clause-17.2.

17.2.5 The Advance Payment shall be recovered through proportionate deductions to be made in the Monthly Payments Certificates issued in accordance with the provisions of Clause-17.5.2. Deductions of Advance Payment shall commence from the Monthly Payment Certificate in which the cumulative interim payments certified shall have reached 20% (twenty percent) of the Contract Price. The total amount recovered in each Monthly Payment Certificate shall not exceed 20% (twenty percent) of the amount due and payable under such Monthly Payment Certificate, which shall include interest on the amount being recovered hereunder. For the avoidance of doubt, the Parties agree that in the event the total payment specified in any Interim Payment Certificate exceeds the limit of 20% (twenty percent) of the Contract Price, the proportion of recovery hereunder shall be restricted to the amount exceeding 20% (twenty per cent) of the Contract Price. By way of illustration, the Parties agree that if the first recovery of say, Rupees 'x' is made after 20 (twenty) months from the date of 1<sup>st</sup>(first) installment of the Advance Payment, interest on Rupees 'x' shall be due and payable for a period of 20 (twenty) months; and when the next recovery is made in the following month for say, Rupees 'y' , interest on Rupees 'y' shall be due and payable for a period of 21 (twenty one) months. The Parties further agree that no payments in excess of 90% (ninety percent) of the Contract Price shall be released to the Contractor until the Advance Payment, including interest there on, has been fully recovered.

17.2.6 If the Advance Payment has not been fully repaid prior to Termination under Clause 19.7 or Article 21, as the case may be, the whole of the balance then outstanding shall immediately become due and payable by the Contractor to the Authority. In the event of Termination for Contractor Default, the Advance Payment shall be deemed to carry interest at an annual rate of 3% (three per cent) above the Bank Rate from the date of Advance Payment to the date of recovery thereof. For the avoidance of doubt, the aforesaid interest shall be payable on each installment of the Advance Payment, regardless of whether the installment or any part thereof has been repaid to the Authority prior to Termination.

### **17.3 Procedure for estimating the payment for the Works**

- 17.3.1 The Authority shall make interim payments to the Contractor, as certified by the Authority's Engineer.
- 17.3.2 The Contractor shall make its claim for interim payment for the work completed till the end of the month for which the payment is claimed, valued in accordance with Clause 17.3.1, and supported with necessary particulars and documents in accordance with this Agreement.
- 17.3.3 Any reduction in the Contract Price arising out of Change of Scope or the Works withdrawn under Clause 8.3, as the case may be, shall not affect the amounts payable for the items thereof which are not affected by such Change of Scope or withdrawal.

### **17.4 Monthly Payment Statement for Works**

The Contractor shall submit a statement (the “**Monthly Payment Statement**”), in 3 copies, by the 7<sup>th</sup>(seventh) day of a month to the Authority's Engineer in the form set forth in Schedule-M, showing the amount calculated in accordance with Clause 17.3 to which the Contractor considers itself entitled for the work progress. The Monthly Payment Statement shall be accompanied with the progress reports and any other supporting documents. In the event that there is no claim for a month in accordance with the provisions of this Clause 17.4, the Contractor shall submit a ‘Nil’ claim to the Authority's Engineer.

### **17.5 Monthly Payment for Works**

- 17.5.1 Within 10 (ten) days of receipt of the Monthly Payment Statement from the Contractor pursuant to Clause 17.4, the Authority's Engineer shall broadly determine the amount due to the Contractor and recommend to release of 70% (seventy per cent) of the amount so determined as part payment against the Monthly Payment Statement, pending issue of the Monthly Payment Certificate by the Authority's Engineer. Within 10 (ten) days of the receipt of recommendation of the Authority's Engineer, the Authority shall make an electronic payment thereof directly to the Contractor's bank account.
- 17.5.2 Within 10 (ten) days of the receipt of the Monthly Payment Statement referred to in Clause 17.4, the Authority's Engineer shall determine and shall deliver to the Authority and the Contractor an IPC certifying the amount due and payable to the Contractor, after adjusting the payments already released to the Contractor against the said statement. For the avoidance of doubt, the Parties agree that the MPC shall specify all the amounts that have been deducted and the reasons therefore.
- 17.5.3 In cases where there is a difference of opinion as to the value of any stage of work, the opinion of the Authority's Engineer shall prevail and monthly

payments shall be made to the Contractor on that basis; provided that the foregoing shall be without prejudice to the Contractor's right to raise a Dispute.

17.5.4 The Authority's Engineer may, for reasons to be recorded, withhold from payment:

- a) The estimated value of work or obligation that the Contractor has failed to perform in accordance with this Agreement and in respect of which the Authority's Engineer had notified the Contractor; and
- b) The estimated cost of rectification of any Works which have not been constructed in accordance with this Agreement.

17.5.5 Payment by the Authority hereunder shall be deemed to be provisional and shall not be construed as the Authority's acceptance, approval, consent or satisfaction with the work done.

17.5.6 In the event the amounts released by the Authority under Clause 17.5.1 exceed the amount finally determined by the Authority's Engineer pursuant to Clauses 17.5.2 to 17.5.4, the difference thereof shall be accounted for in the next IPC.

## **17.6 Payment of Damages**

17.6.1 The Contractor may claim Damages due and payable to it in accordance with the provisions of this Agreement.

17.6.2 The Authority's Engineer shall issue the MPC within 10 (ten) days of the receipt of the claim under Clause 17.6.1, after making adjustments in accordance with the provisions of this Agreement. The Authority shall pay to the Contractor the amount due under such MPC within a period of 15 (fifteen) days from the date of the submission of the claim under this Clause 17.6.

## **17.7 Time of payment and interest**

17.7.1 The Authority shall pay to the Contractor any amount due under any payment certificate issued by the Authority's Engineer in accordance with the provisions of this Agreement as follows:

Payment shall be made no later than 15 (fifteen) days from the date of submission of the Monthly Payment Statement by the Contractor to the Authority's Engineer for certification in accordance with the provisions of Clause 17.4 for an MPC; provided, however, that in the event the MPC is not issued by the Authority's Engineer within the aforesaid period of 30 (thirty) days, the Authority shall pay the amount shown in the Contractor's Running Account (R.A) Bill Statement and any discrepancy therein shall be adjusted in the next payment certificate; and payment shall be made no later than 30 (thirty) days from the date of submission of the Final Payment Certificate for Works along with the discharge submitted to the Authority's Engineer for certification in accordance with the provisions of Clause 17.12.

17.7.2 Deleted.

**17.8 Deleted**

**17.9 Deleted.**

#### **17.10 Final Payment Statement**

17.10.1 Within 60 (sixty) days of receiving the Completion Certificate under Clause 12.4, the Contractor shall submit to the Authority's Engineer six copies of a final payment statement (the "**Final Payment Statement**"), with supporting documents, in the form prescribed by the Authority's Engineer in respect of:

- a) The summary of Contractor's Running Account (R.A) Bill Statements for Works as submitted in accordance with Clause 17.4;
- b) the amounts received from the Authority against each claim; and
- c) any further sums which the Contractor considers due to it from the Authority.

17.10.2 If the Authority's Engineer disagrees with or cannot verify any part of the Final Payment Statement, the Contractor shall submit such further information as the Authority's Engineer may reasonably require.

17.10.3 The Authority's Engineer shall deliver to the Authority:

- 1) an MPC for those parts of the Final Payment Statement which are not in dispute, along with a list of disputed items which shall then be settled in accordance with the provisions of Article 24; or
- 2) a Final Payment Certificate in accordance with Clause 17.15, if there are no disputed items.

17.10.4 The Authority's Engineer does not prescribe the form referred to in Clause-17.10.1 within 15 (fifteen) days of the date of issue of the Completion Certificate, the Contractor shall submit the statement in such form as it deems fit.

#### **17.11 Discharge**

Upon submission of the Final Payment Statement under Clause 17.10, the Contractor shall give to the Authority, with a copy to the Authority's Engineer, a written discharge confirming that the total of the Final Payment Statement represents full and final settlement of all monies due to the Contractor in respect of this Agreement for all the Works arising out of this Agreement, except for any monies due to either Party on account of any Defect. Provided that such discharge shall become effective only after the payment due has been made in accordance with the Final Payment Certificate issued pursuant to Clause-17.12.

#### **17.12 Final Payment Certificate**

17.12.1 Within 30 (thirty) days after receipt of the Final Payment Statement under Clause 17.10, and the written discharge under Clause 17.11, and there being no disputed items of claim, the Authority's Engineer shall deliver to the Authority, with a copy to the Contractor, a final payment certificate (the "**Final Payment Certificate**") stating the amount which, in the opinion of the Authority's Engineer, is finally due under this Agreement or otherwise. For the avoidance of doubt, before issuing the Final Payment Certificate, the Authority's Engineer shall ascertain from the Authority all amounts previously paid by the Authority, all sums due to the Authority, and the balance, if any, due from the Authority to the Contractor or from the Contractor to the Authority, as the case maybe.

17.12.2 The Authority shall, in accordance with the provisions of Clause 17.7, pay to the Contractor the amount which is specified as being finally due in the Final Payment Certificate.

### **17.13 Change in law**

17.13.1 If as a result of Change in Law, the Contractor suffers any additional costs in the execution of the Works or in relation to the performance of its other obligations under this Agreement, the Contractor shall, within 15(fifteen) days from the date it becomes reasonably aware of such addition in costs, notify the Authority with a copy to the Authority's Engineer of such additional costs due to Change in Law.

17.13.2 If as a result of Change in Law, the Contractor benefits from any reduction in costs for the execution of this Agreement or in accordance with the provisions of this Agreement, either Party shall, within 15 (fifteen) days from the date it becomes reasonably aware of such reduction in costs, notify the other Party with a copy to the Authority's Engineer of such reduction in costs due to Change in Law.

17.13.3 The Authority's Engineer shall, within 15 (fifteen) days from the date of receipt of notice from the Contractor or the Authority, as the case may be, determine any addition or reduction to the Contract Price, as the case may be, due to the Change in Law.

### **17.14 Correction of Monthly Payment Certificates**

The Authority's Engineer may in a Monthly Payment Certificate make any correction or modification in any previous Interim Payment Certificate issued by the Authority's

Engineer.

#### **17.15 Authority's claims**

If the Authority considers itself to be entitled to any payment from the Contractor under any Clause of this Agreement, it shall give notice and particulars to the Contractor 20 (twenty) days before making the recovery from any amount due to the Contractor, and shall take into consideration the representation, if any, made by the Contractor in this behalf, before making such recovery.

#### **17.16 Bonus for early completion**

In the event that the Project Completion Date occurs prior to the Scheduled Completion Date, the Contractor shall be entitled to receive a payment of bonus equivalent to 1% (one per cent) of the contract price per month computed on per day basis, shall be payable to the contractor, subject to a maximum limit of 5% (five percent) of the contract price. Provided, however, that the payment of bonus, if any, shall be made only after the issue of the Completion Certificate. For the avoidance of doubt, the Parties agree that for the purpose of determining the bonus payable hereunder, the Contract Price shall always be deemed to be the amount specified in Clause 17.1.1, and shall exclude any revision thereof for any reason.

## ARTICLE 18

### INSURANCE

#### **18.1 Insurance for Works**

18.1.1 The Contractor shall effect and maintain at its own cost the insurances specified in Schedule-N and as per the requirements under Applicable Laws.

18.1.2 Subject to the provisions of Clause-19.6, the Contractor shall, in accordance with the provisions of this Agreement, be liable to bear the cost of any loss or damage that does not fall within the scope of this Article 18 or cannot be recovered from the insurers.

18.1.3 Save and except as provided in Clause 18.1.4, the Contractor shall fully indemnify, hold harmless and defend the Authority from and against any and all losses, damages, costs, charges and/or claims with respect to:

- I. the death of or injury to any person; or
- II. the loss of or damage to any property,

that may arise out of or in consequence of any breach by the Contractor of this Agreement during the execution of the Works or the remedying of any Defects therein.

18.1.4 Notwithstanding anything in Clause 18.1.3, the Authority shall fully indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims arising out of or with respect to

- a) the use or occupation of land or any part thereof by the Authority;
- b) the damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any Defects therein, in accordance with this Agreement; and
- c) the death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Authority, its agents, servants or other contractors, not being employed by the Contractor.

Provided, however, that in the event of any injury or damage as a result of the contributory negligence of the Contractor, the Authority shall be liable to indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims to the extent as proportionate to the liability of the Authority, its servants or agents or other contractors not associated with the Contractor in such injury or damage.

18.1.5 Without prejudice to the provisions of Clauses-18.1.3 and 18.1.4, the Contractor shall maintain or effect such third-party insurances as may be required under Applicable Laws.

18.1.6 The Contractor shall provide to the Authority, within 30 days of the Appointed Date, evidence of professional liability insurance maintained by its Design

engineer and/or consultants to cover the risk of professional negligence in the design of Works. The professional liability cover shall be for a sum of not less than [3% (three percent)] of the Contract Price and shall be maintained until the end of contract.

## **18.2 Notice to the Authority**

No later than 15 (fifteen) days after the date of this Agreement, the Contractor shall by notice furnish to the Authority, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Article. Within 15 (fifteen) days of receipt of such notice, the Authority may require the Contractor to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

## **18.3 Evidence of Insurance Cover**

18.3.1 All insurances obtained by the Contractor in accordance with this Article-18 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 10(ten) days from the Appointed Date, the Contractor shall furnish to the Authority notarized true copies of the certificate(s) of insurance, copies of insurance policies and premium payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty-five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Contractor to the Authority.

18.3.2 The Contractor shall procure and ensure the adequacy of the insurances at all times in accordance with the provisions of this Agreement.

## **18.4 Remedy for failure to insure**

If the Contractor shall fail to effect and keep in force all insurances for which it is responsible pursuant hereto, the Authority shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Contractor, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Contractor.

## **18.5 Waiver of subrogation**

All insurance policies in respect of the insurance obtained by the Contractor pursuant to this Article-18 shall include a waiver of any and all rights of subrogation or recovery of the insurers there under against, inter alia, the Authority, and its assigns, successors, undertakings and their subsidiaries, Affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counter claim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.



### **18.6 Contractor's waiver**

The Contractor hereby further releases, assigns and waives any and all rights of subrogation or recovery against, inter alia, the Authority and its assigns, undertakings and their subsidiaries, Affiliates, employees, successors, insurers and underwriters, which the Contractor may otherwise have or acquire in or from or in any way connected with any loss, liability or obligation covered by policies of insurance maintained or required to be maintained by the Contractor pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

### **18.7 Cross liabilities**

Any such insurance maintained or effected in pursuance of this Article 18 shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Authority as separately insured.

### **18.8 Accident or injury to workmen**

Notwithstanding anything contained in this Agreement, it is hereby expressly agreed between the Parties that the Authority shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or Sub-contractor, save and except as for death or injury resulting from any act, omission or default of the Authority, its agents or servants. The Contractor shall indemnify and keep indemnified the Authority from and against all such claims, proceedings, damages, costs, charges, and expenses whatsoever in respect of the above save and except for those acts, omissions or defaults for which the Authority shall be liable.

### **18.9 Insurance against accident to workmen**

The Contractor shall effect and maintain during the Agreement such insurances as may be required to insure the Contractor's personnel and any other persons employed by it on the Project from and against any liability incurred in pursuance of this Article-18. Provided that for the purposes of this Clause-18.9, the Contractor's personnel/any person employed by the Contractor shall include the Sub-contractor and its personnel. Provided further that in respect of any persons employed by any Sub-contractor, the Contractor's obligations to insure as aforesaid under this Clause-18.9 shall be discharged if the Sub-contractor shall have insured against any liability in respect of such persons in such manner that the Authority is indemnified under the policy. The Contractor shall require such Sub-contractor to produce before the Authority, when required, such policy of insurance and the receipt for payment of the current premium within 10 (ten) days of such demand being made by the Authority.

### **18.9 Application of insurance proceeds**

The proceeds from all insurance claims, except for life and injury, shall be applied for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project and the provisions of this Agreement in respect of construction of Works shall apply *mutatis mutandis* to the Works undertaken out of the proceeds of insurance.

### **18.10 Compliance with policy conditions**

The Contractor hereby expressly agrees to fully indemnify the Authority from and against all losses and claims arising from the Contractor's failure to comply with conditions imposed by the insurance policies effected in accordance with this Agreement.

## Part V

### **Force Majeure and Termination**

## ARTICLE 19

### FORCE MAJEURE

#### 19.1 Force Majeure

As used in this Agreement, the expression “**Force Majeure**” or “**Force Majeure Event**” shall mean occurrence in India of any or all of Non-Political Event, Indirect Political Event and Political Event, as defined in Clauses 19.2, 19.3 and 19.4 respectively, if it affects the performance by the Party claiming the benefit of Force Majeure (the “**Affected Party**”) of its obligations under this Agreement and which act or event (a) is beyond the reasonable control of the Affected Party, and the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (c) has Material Adverse Effect on the Affected Party.

#### 19.2 Non-Political Event

A Non-Political Event shall mean one or more of the following acts or events:

- ☐ act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radio active contamination or ionizing radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);
- ☐ strikes or boycotts (other than those involving the Contractor, Sub-contractors or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Project for a continuous period of 24 (twenty-four) hours and an aggregate period exceeding 10 (ten) days in an Accounting Year, and not being an Indirect Political Event set forth in Clause 19.3;
- ☐ any failure or delay of a Sub-contractor but only to the extent caused by another Non-Political Event;
- ☐ any judgment or order of any court of competent jurisdiction or statutory authority made against the Contractor in any proceedings for reasons other than (i) failure of the Contractor to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Authority; or (v) breach of its obligations by the Contractor under its sub-contracts;
- ☐ the discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or
- ☐ any event or circumstances of a nature analogous to any of the foregoing.

#### 19.3 Indirect Political Event

An Indirect Political Event shall mean one or more of the following acts or events:

- a. An act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- b. industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty-four) hours and exceeding an aggregate period of 10 (ten) days in an Accounting Year;
- c. any civil commotion, boycott or political agitation which prevents construction of the Project by the Contractor for an aggregate period exceeding 10 (ten) days in an Accounting Year;
- d. failure of the Authority to permit the Contractor to continue with its Construction Works, with or without modifications, in the event of stoppage of such work after discovery of any geological or archaeological finds;
- e. any failure or delay of a Sub-contractor to the extent caused by any Indirect Political Event;
- f. any Indirect Political Event that causes a Non-Political Event; or
- g. any event or circumstances of a nature analogous to any of the foregoing.

#### **19.4 Political Event**

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:

- d) Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of Clause-17.13;
- e) compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Contractor or of the Sub-contractors;
- f) unlawful or unauthorized or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, license, permit, authorization, no objection certificate, consent, approval or exemption required by the Contractor or any of the Sub-contractors to perform their respective obligations under this Agreement; provided that such delay, modification, denial, refusal or revocation did not result from the Contractor's or any Sub-contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, license, authorization, no objection certificate, exemption, consent, approval or permit;
- g) any failure or delay of a Sub-contractor but only to the extent caused by another Political Event; or

- h) any event or circumstances of a nature analogous to any of the foregoing.

## **19.5 Duty to report Force Majeure Event**

19.5.1 Upon occurrence of a Force Majeure Event, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:

- i) the nature and extent of each Force Majeure Event which is the subject of any claim for relief under this Article 19 with evidence in support thereof;
- j) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
- k) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and
- l) any other information relevant to the Affected Party's claim.

19.5.2 The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event no later than 10 (ten) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.

19.5.3 For so long as the Affected Party continues to claim to be affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by Clause-19.5.1, and such other information as the other Party may reasonably request the Affected Party to provide.

## **19.6 Effect of Force Majeure Event on the Agreement**

19.6.1 Upon the occurrence of any Force Majeure

- a) prior to the Appointed Date, both Parties shall bear their respective Force Majeure costs.
- b) after the Appointed Date, the costs incurred and attributable to such event and directly relating to this Agreement (the "**Force Majeure costs**") shall be allocated and paid as follows:
- c) upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure costs and neither Party shall be required to pay to the other Party any costs thereof;
- d) upon occurrence of an Indirect Political Event, all Force Majeure costs

attributable to such Indirect Political Event, and not exceeding the Insurance Cover for such Indirect Political Event, shall be borne by the Contractor, and to the extent Force Majeure costs exceed such Insurance Cover, one half of such excess amount shall be reimbursed by the Authority to the Contractor for the Force Majeure events; and

- e) upon occurrence of a Political Event, all Force Majeure costs attributable to such Political Event shall be reimbursed by the Authority to the Contractor.

For the avoidance of doubt, Force Majeure costs may include costs directly attributable to the Force Majeure Event, but shall not include debt repayment obligations, if any, of the Contractor.

19.6.2 Save and except as expressly provided in this Article-19, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant hereto.

19.6.3 Upon the occurrence of any Force Majeure Event during the Construction Period, the Project Completion Schedule for and in respect of the affected Works shall be extended on a day for day basis for such period as performance of the Contractor's obligations is affected on account of the Force Majeure Event or its subsisting effects, as may be determined by the Authority's Engineer.

19.6.4 Force Majeure costs for any event which results in any off setting compensation being payable to the Contractor by or on behalf of its Sub-contractors shall be reduced by such amounts that are payable to the Contractor by its Sub-contractors.

## **19.7 Termination Notice for Force Majeure Event**

If a Force Majeure Event subsists for a period of 60 (sixty) days or more within a continuous period of 120 (one hundred and twenty) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this Article 19, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days' time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination

Notice.

## **19.8 Termination Payment for Force Majeure Event**

19.8.1 In the event of this Agreement being terminated on account of a Non-Political Event, the Termination Payment shall be an amount equal to the sum payable under Clause 21.5.

19.8.2 If Termination is on account of an Indirect Political Event, the Termination Payment shall include:

- any sums due and payable under Clause 21.5; and
- the reasonable cost, as determined by the Authority's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for use in Construction, only if such Plant and Materials are in conformity with the Specifications and Standards;

19.8.3 If Termination is on account of a Political Event, the Authority shall make a Termination Payment to the Contractor in an amount that would be payable under Clause 21.6.2 as if it were an Authority Default.

## **19.9 Dispute resolution**

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

## **19.10 Excuse from performance of obligations**

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:

- ii the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;
- iii the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and
- iv when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.





## ARTICLE 20

### SUSPENSION OF CONTRACTOR'S RIGHTS

#### **20.1 Suspension upon Contractor Default**

Upon occurrence of a Contractor Default, the Authority shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (a) suspend carrying out of the Works or any part thereof, and (b) carry out such Works itself or authorize any other person to exercise or perform the same on its behalf during such suspension (the “**Suspension**”). Suspension hereunder shall be effective forthwith upon issue of notice by the Authority to the Contractor and may extend up to a period not exceeding 90(ninety) days from the date of issue of such notice.

#### **20.2 Authority to act on behalf of Contractor**

During the period of Suspension hereunder, all rights and liabilities vested in the Contractor in accordance with the provisions of this Agreement shall continue to vest in the Contractor and all things done or actions taken, including expenditure incurred by the Authority for discharging the obligations of the Contractor under and in accordance with this Agreement shall be deemed to have been done or taken for and on behalf of the Contractor and the Contractor undertakes to indemnify the Authority for all costs incurred during such period. The Contractor hereby licenses and sub-licenses respectively, the Authority or any other person authorized by it under Clause 20.1 to use during Suspension, all Intellectual Property belonging to or licensed to the Contractor with respect to the Project and its design, engineering, construction, and which is used or created by the Contractor in performing its obligations under the Agreement.

#### **20.3 Revocation of Suspension**

20.3.1 In the event that the Authority shall have rectified or removed the cause of Suspension within a period not exceeding 60 (sixty) days from the date of Suspension, it shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement. For the avoidance of doubt, the Parties expressly agree that the Authority may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.

20.3.2 Upon the Contractor having cured the Contractor Default within a period not exceeding 60 (sixty) days from the date of Suspension, the Authority shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement.

#### **20.4 Termination**

- 20.4.1 At any time during the period of Suspension under this Article 20, the Contractor may by notice require the Authority to revoke the Suspension and issue a Termination Notice. The Authority shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Article 21 as if it is a Contractor Default under Clause-21.1.
- 20.4.2 Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 90 (ninety) days from the date of Suspension hereunder, the Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, *mutatis mutandis*, to such Termination as if a Termination Notice had been issued by the Authority upon occurrence of a Contractor Default.

## ARTICLE 21

### TERMINATION

#### 21.1 Termination for Contractor Default

21.1.1 Save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Contractor fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 60 (sixty) days, the Contractor shall be deemed to be in default of this Agreement (the “**Contractor Default**”), unless the default has occurred as a result of any breach of this Agreement by the Authority or due to Force Majeure. The defaults referred to herein shall include the following:

- a) The Contractor fails to provide, extend or replenish, as the case may be, the Performance Security in accordance with this Agreement;
- b) Subsequent to the replenishment or furnishing of fresh Performance Security in accordance with Clause-7.3, the Contractor fails to cure, within a Cure Period of 60(sixty)days, the Contractor Default for which the whole or part of the Performance Security was appropriated;
- c) the Contractor does not achieve the latest outstanding Project Milestone due in accordance with the provisions of Schedule-I, subject to any Time Extension, and continues to be in default for 45 (forty-five) days;
- d) the Contractor abandons or manifests intention to abandon the construction of the Project without the prior written consent of the Authority;
- e) the Contractor fails to proceed with the Works in accordance with the provisions of Clause 10.1 or stops Works for 30 (thirty) days without reflecting the same in the current programme and such stoppage has not been authorized by the Authority’s Engineer;
- f) the Project Completion Date does not occur within the period specified in Schedule-I for the Scheduled Completion Date, or any extension thereof;
- g) failure to complete the Punch List items within the periods stipulated there for in Clause12.3;

- h) the Contractor fails to rectify any Defect, the non-rectification of which shall have a Material Adverse Effect on the Project, within the time specified in this Agreement or as directed by the Authority's Engineer;
- i) the Contractor subcontracts the Works or any part thereof in violation of this Agreement or assigns any part of the Works without the prior approval of the Authority;
- j) the Contractor creates any Encumbrance in breach of this Agreement;
- k) an execution levied on any of the assets of the Contractor has caused a Material Adverse Effect;
- l) the Contractor is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Contractor or for the whole or material part of its assets that has a material bearing on the Project;
- m) the Contractor has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect;
- n) a resolution for winding up of the Contractor is passed, or any petition for winding up of the Contractor is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (ninety) days of the date thereof or the Contractor is ordered to be wound up by a court except for the purpose of amalgamation or reconstruction; provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Contractor are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Contractor under this Agreement; and provided that:
- o) the amalgamated or reconstructed entity has the capability and experience necessary for the performance of its obligations under this Agreement; and
- p) the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and has a credit worthiness at least as good as that of the Contractor

as at the Appointed Date;

- q) any representation or warranty of the Contractor herein contained which is, as of the date hereof, found to be materially false or the Contractor is at any time hereafter found to be in breach thereof;
- r) the Contractor submits to the Authority any statement, notice or other document, in written or electronic form, which has a material effect on the Authority's rights, obligations or interests and which is false in material particulars;
- s) the Contractor has failed to fulfill any obligation, for which failure Termination has been specified in this Agreement; or
- t) the Contractor has failed to make any payment to the Authority within the period specified in this Agreement;
- u) the Concessionaire issues a Termination Notice in violation of this Agreement; or
- v) the Contractor commits a default in complying with any other provision of this Agreement if such a default causes a Material Adverse Effect on the Project or on the Authority.

21.1.2 Without prejudice to any other rights or remedies which the Authority may have under this Agreement, upon occurrence of a Contractor Default, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the Contractor; provided that before issuing the Termination Notice, the Authority shall by a notice inform the Contractor of its intention to issue such Termination Notice and grant 15(fifteen) days to the Contractor to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

21.1.3 After termination of this Agreement for Contractor Default, the Authority may complete the Works and/or procure its completion through any other entity. The Authority and such entity may, for this purpose, use any Materials, Plant and equipment, Contractor's documents and other design documents made by or on behalf of the Contractor.

## **21.2 Termination for Authority Default**

21.2.1 In the event that any of the defaults specified below shall have occurred, and the Authority fails to cure such default within a Cure Period of 60 (sixty) days or such longer period as has been expressly provided in this Agreement, the Authority shall be deemed to be in default of this Agreement (the "**Authority Default**")

unless the default has occurred as a result of any breach of this Agreement by the Contractor or due to Force Majeure. The defaults referred to herein shall include the following:

- a) The Authority commits a material default in complying with any of the provisions of this Agreement and such default has a Material Adverse Effect on the Contractor;
- b) The Authority has failed to make payment of any amount due and payable to the Contractor within the period specified in this Agreement;
- c) The Authority has failed to provide, within a period of 180(one hundred and eighty) days from the Appointed Date, the environmental clearances and forest clearances required for construction of the Project;
- d) The Authority repudiates this Agreement or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by this Agreement; or
- e) The Authority's Engineer fails to issue the relevant Interim Payment Certificate within 60 (sixty) days after receiving a statement and supporting documents.

21.2.2 Without prejudice to any other right or remedy which the Contractor may have under this Agreement, upon occurrence of an Authority Default, the Contractor shall be entitled to terminate this Agreement by issuing a Termination Notice to the Authority; provided that before issuing the Termination Notice, the Contractor shall by a notice inform the Authority of its intention to issue the Termination Notice and grant 15 (fifteen) days to the Authority to make a representation, and may after the expiry of such 15(fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

### **21.3 Termination for Authority's convenience**

Notwithstanding anything herein above, the Authority may terminate this Agreement for its own convenience. The termination shall take effect 30 (thirty) days from the date of notice hereunder and shall be deemed to be termination on account of Authority Default.

### **21.4 Requirements after Termination**

Upon Termination of this Agreement in accordance with the provisions of this Article 21, the Contractor shall comply with and conform to the following:

- a) deliver to the Authority all Plant and Materials which shall

have become the property of the Authority under this Article21;

- b) deliver all relevant records, reports, Intellectual Property and other licenses pertaining to the Works, other design documents and in case of Termination occurring after the Provisional Certificate has been issued, the “**as built**” Drawings for the Works;
- c) transfer and/or deliver all Applicable Permits to the Authority to the extent permissible under Applicable Laws; and
- d) Vacate the Site within 15 (fifteen) days.

## **21.5 Valuation of Unpaid Works**

21.5.1 Within a period of 45 (forty-five) days after Termination under Clause 21.1, 21.2or 21.3, as the case may be, has taken effect, the Authority’s Engineer shall proceed in accordance with Clause16.5 to determine as follows the valuation of unpaid Works (the “**Valuation of Unpaid Works**”):

- i. value of the completed stage of the Works, less payments already made; and
- ii. Reasonable value of the partially completed stages of works as on the date of Termination, only if such works conform with the Specifications and Standards.

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement; and (ii) all taxes due to be deducted at source.

21.5.2 The Valuation of Unpaid Works shall be communicated to the Authority, with a copy to the Contractor, within a period of 45 (forty five) days from the date of Termination.

## **21.6 Termination Payment**

21.6.1 Upon Termination on account of Contractor Default under Clause 21.1,

the Authority shall:

- i. Encash and appropriate the Performance Security or Retention Money, whichever is more, and in the event the Contractor has failed to replenish or extend the Performance Security, claim the amount stipulated in Clause 7.1.1, as agreed pre-determined Damages, if any;
- ii. encash and appropriate the bank guarantee, if any, to the extent of the outstanding Advance Payment and interest thereon; and



- iii. pay to the Contractor, by way of Termination Payment, an amount equivalent to the Valuation of Unpaid Works after adjusting any other sums payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and shall adjust from the sum thereof
  - (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and
  - (ii) All taxes due to be deducted at source.

21.6.2 Upon Termination on account of an Authority Default under Clause 21.2 or

for Authority's convenience under Clause 21.3, the Authority shall:

- a) return the Performance Security and Retention Money forthwith;
- b) Encash and appropriate the bank guarantee, if any, to the extent of the outstanding Advance Payment, including interest thereon; and
- c) pay to the Contractor, by way of Termination Payment, an amount equal to:
- d) Valuation of Unpaid Works;
- e) the reasonable cost, as determined by the Authority's Engineer, of the Plant and Materials procured by the Contractor and transferred to the Authority for its use, only if such Plant and Materials are in conformity with the Specifications and Standards;
- f) the reasonable cost of temporary works, as determined by the Authority's Engineer; and
- g) 10% (ten percent) of the cost of the Works that are not commenced or not completed, and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and (ii) all taxes due to be deducted at source.

21.6.3 Termination Payment shall become due and payable to the Contractor within 30 (thirty) days of a demand being made by the Contractor to the Authority with the necessary particulars, after the Valuation of Unpaid Works has been communicated by the Authority's Engineer. For the avoidance of doubt, it is expressly agreed that Termination Payment shall constitute full discharge by the Authority of its payment obligations in respect thereof hereunder.

21.6.4 The Contractor expressly agrees that Termination Payment under this Article 21 shall constitute a full and final settlement of all claims of the Contractor on account of Termination of this Agreement and that it shall not have any further

right or claim under any law, treaty, convention, contract or otherwise.

## **21.7 Other rights and obligations of the Parties**

Upon Termination for any reason whatsoever

- a) the property and ownership in all Materials, Plant and Works and the Project shall, as between the Contractor and the Authority, vest in the Authority in whole, free from any and all Encumbrances; provided that the foregoing shall be without prejudice to Clause 21.6;
- b) the risk of loss or damage to any Materials, Plant or Works and the care and custody thereof shall pass from the Contractor to the Authority; and
- c) the Authority shall be entitled to restrain the Contractor and any person claiming through or under the Agreement from entering upon the Site or any part of the Project except for taking possession of materials, stores, implements, construction plants and equipment of the Contractor, which have not been vested in the Authority in accordance with the provisions of this Agreement.

## **21.8 Survival of rights**

Notwithstanding anything to the contrary contained in this Agreement any Termination pursuant to the provisions of this Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or Agreement. All rights and obligations of either Party under this Agreement, including Termination Payments, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.

## Part VI

### **Other Provisions**

## ARTICLE 22

### ASSIGNMENT AND CHARGES

#### **22.1 Restrictions on assignment and charges**

This Agreement shall not be assigned by the Contractor to any person, save and except with the prior consent in writing of the Authority, which consent the Authority shall be entitled to decline without assigning any reason.

#### **22.2 Hypothecation of Materials or Plant**

Notwithstanding the provisions of Clause 22.1, the Contractor may pledge or hypothecate to its lenders, any Materials or Plant prior to their incorporation in the Works. Further, the Contractor may, by written notice to the Authority, assign its right to receive payments under this Agreement either absolutely or by way of charge, to any person providing financing to the Contractor in connection with the performance of the Contractor's obligations under this Agreement. The Contractor acknowledges that any such assignment by the Contractor shall not relieve the Contractor from any obligations, duty or responsibility under this Agreement. For the avoidance of doubt, all Materials and Plants shall, upon their incorporation into Works, be free from any and all Encumbrances without the Authority being required to make any payment to any person on account of any costs, compensation, expenses and charges for such Materials, Plants and Works.

## ARTICLE 23

### LIABILITY AND INDEMNITY

#### 23.1 General indemnity

The Contractor shall indemnify, defend, save and hold harmless the Authority and its officers, servants, agents, Government Instrumentalities and Government owned and/or controlled entities/enterprises, (the “**Authority Indemnified Persons**”) against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense of whatever kind and nature, whether arising out of any breach by the Contractor of any of its obligations under this Agreement or from any negligence under the Agreement, including any errors or deficiencies in the design documents, or tort or on any other ground whatsoever, except to the extent that any such suits, proceedings, actions, demands and claims have arisen due to any negligent act or omission, or breach or default of this Agreement on the part of the Authority Indemnified Persons.

#### 23.2 Indemnity by the Contractor

23.2.1 Without limiting the generality of Clause 23.1, the Contractor shall fully indemnify, hold harmless and defend the Authority and the Authority Indemnified Persons from and against any and all loss and/or damages arising out of or with respect to:

- a) failure of the Contractor to comply with Applicable Laws and Applicable Permits;
- b) payment of taxes required to be made by the Contractor in respect of the income or other taxes of the Sub-contractors, suppliers and representatives; or
- c) non-payment of amounts due as a result of Materials or services furnished to the Contractor or any of its Sub-contractors which are payable by the Contractor or any of its Sub-contractors.

23.2.2 Without limiting the generality of the provisions of this Article 23, the Contractor shall fully indemnify, hold harmless and defend the Authority Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the Authority Indemnified Persons may here after suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other Intellectual Property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Contractor or by the Sub- contractors in performing the Contractor’s obligations or in any way incorporated in or related to the Project.

If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Contractor shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the revocation or suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Project, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Contractor shall promptly make every reasonable effort to secure for the Authority a license, at no cost to the Authority, authorizing continued use of the infringing work. If the Contractor is unable to secure such license within a reasonable time, the Contractor shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non- infringing work or part or process, or modify the same so that it becomes non- infringing.

### **23.3 Notice and contest of claims**

In the event that either Party receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this Agreement (the “**Indemnified Party**”) it shall notify the other Party (the “**Indemnifying Party**”) within 15(fifteen) days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

### **23.4 Defense of claims**

23.4.1 The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and reasonable costs and expenses thereof shall be indemnified by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party in respect of loss to the full extent provided by this Agreement, the Indemnifying Party shall be entitled, at its option, to assume and control the defense of such claim, action, suit or proceeding, liabilities, payments and obligations at its expense and through the counsel of its choice; provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defense. The Indemnifying Party shall not be entitled to settle or compromise any claim, demand, action, suit or proceeding

without the prior written consent of the Indemnified Party, unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure the loss to be indemnified hereunder to the extent so compromised or settled.

23.4.2 If the Indemnifying Party has exercised its rights under Clause 23.3, the Indemnified Party shall not be entitled to settle or compromise any claim, action, suitor proceeding without the prior written consent of the Indemnifying Party (which consent shall not be unreasonably withheld or delayed).

23.4.3 If the Indemnifying Party exercises its rights under Clause 23.3, the Indemnified Party shall nevertheless have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be the expense of the Indemnified Party, when and as incurred, unless:

- d) the employment of counsel by such party has been authorized in writing by the Indemnifying Party;
- e) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defense of such action;
- f) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defense of such action and shall have been so notified by the Indemnified Party; or
- g) the Indemnified Party shall have reasonably concluded and specifically notified the Indemnifying Party either:
  - 1) that there may be specific defenses available to it which are different from or additional to those available to the Indemnifying Party; or
  - 2) that such claim, action, suit or proceeding involves or could have a material adverse effect upon it beyond the scope of this Agreement:

Provided that if Sub-clauses (b), (c) or (d) of this Clause 23.4.3 shall be applicable, the counsel for the Indemnified Party shall have the right to direct the defense of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

## **23.5 No consequential claims**

Notwithstanding anything to the contrary contained in this Article 23, the

indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

**23.6 Survival on Termination**

The provisions of this Article 23 shall survive Termination.



## ARTICLE 24

### DISPUTE RESOLUTION

#### 24.1 Dispute resolution

24.1.1 Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the “**Dispute**”) shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Clause 24.2.

24.1.2 The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of this Agreement promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

#### 24.2 Conciliation

In the event of any Dispute between the Parties, either Party may call upon an officer of the Authority, not below the rank of Secretary to the Government or Chief Engineer, as the case may be, or such other person as the Parties may mutually agree upon (the “**Conciliator**”) to conciliate and assist the Parties in arriving at an amicable settlement thereof. Failing conciliation by the Conciliator or without the intervention of the Conciliator, either Party may require such Dispute to be referred to the Secretary or Chief Engineer of the Authority and the Chairman of the Board of Directors of the Contractor for amicable settlement, and upon such reference, the said persons shall meet no later than 7 (seven) business days from the date of reference to discuss and attempt to amicably resolve the Dispute. If such meeting does not take place within the 7 (seven) business day period or the Dispute is not amicably settled within 15 (fifteen) business days of the meeting or the Dispute is not resolved as evidenced by the signing of written terms of settlement within 30 (thirty) business days of the notice in writing referred to in Clause 24.1.1 or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration in accordance with the provisions of Clause 24.3.

#### 24.3 Arbitration

24.3.1 Any Dispute which is not resolved amicably by conciliation, as provided in Clause 24.2, shall be finally decided by reference to arbitration by an arbitral tribunal constituted in accordance with Clause 24.3.2. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, New Delhi or Construction Industry Arbitration

Council (CIAC), New Delhi (the “Rules”), or such other rules as may be mutually agreed by the Parties, and shall be subject to the provisions of the Arbitration and Conciliation Act, 1996. The place of such arbitration shall be Bhagalpur, and the language of arbitration proceedings shall be English.

The Arbitration shall be in Institutional mode & would not be adhoc, in any case, and the online mode of dispute resolution may also be resorted to as per the latest notification of Ministry of Law & Justice, Government of India.

24.3.2 There shall be an arbitral tribunal comprising three arbitrators, of whom each Party shall select one, and the third arbitrator shall be appointed by the two arbitrators so selected and in the event of disagreement between the two arbitrators, the appointment shall be made in accordance with the Rules.

24.3.3 Wherever possible or required, On-line dispute resolution mechanism as prescribed by Ministry of Law vide their notification - [http://doj.gov.in/sites/default/files/List%20of%20firm%20with%20profile-17\\_1.pdf](http://doj.gov.in/sites/default/files/List%20of%20firm%20with%20profile-17_1.pdf), with subsequent amendments if any, is to be resorted to, in place of the traditional in-situ arbitration procedures. The decision on which system of procedures is to be followed (viz. traditional or on-line) would rest with the Contracting Parties at the time of signing the contract, who may if they so decide, permit the decision to be made by Third Arbitrator (appointed by the two nominated arbitrators).

24.3.4 The arbitral tribunal shall make a reasoned award (the “**Award**”). Any Award made in any arbitration held pursuant to this Article 24 shall be final and binding on the Parties as from the date it is made, and the Contractor and the Authority agree and undertake to carry out such Award without delay.

24.3.5 The Contractor and the Authority agree that an Award may be enforced against the Contractor and/or the Authority, as the case may be, and their respective assets where ever situated.

24.3.6 This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.

24.3.7 In the event the Party against whom the Award has been granted challenges the Award for any reason in a court of law, it shall make an interim payment to the other Party for an amount equal to 75% (seventy-five per cent) of the Award, pending final settlement of the Dispute. The aforesaid amount shall be paid forthwith upon furnishing an irrevocable Bank Guarantee for a sum equal to the aforesaid amount. Upon final settlement of the Dispute, the aforesaid interim payment shall be adjusted and any balance amount due to be paid or returned, as the case may be, shall be paid or returned with interest calculated at the rate of 10% (ten percent) per annum from the date of interim payment to the date of final settlement of such balance.

#### **24.4 Adjudication by a tribunal**

In the event of constitution of a statutory tribunal or other forum with powers to adjudicate upon disputes between the Contractor and the Authority, all Disputes arising after such constitution shall, instead of reference to arbitration under Clause 24.3, be adjudicated upon by such tribunal or other forum in accordance with Applicable Laws and all references to Dispute Resolution Procedure shall be construed accordingly.

## ARTICLE 25

### MISCELLANEOUS

#### 25.1 Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts in the State shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

#### 25.2 Waiver of immunity

Each Party unconditionally and irrevocably:

1. Agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;
2. Agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Party with respect to its assets;
3. waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
4. consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief for the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

#### 25.3 Deleted.

#### 25.4 Waiver

25.4.1 Waiver, including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:

- a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
- b) shall not be effective unless it is in writing and executed by a duly authorized representative of the Party; and
- c) Shall not affect the validity or enforceability of this Agreement in any manner.

25.4.2 Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation there under nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

## **25.5 Liability for review of Documents**

Except to the extent expressly provided in this Agreement:

- a) no review, comment or approval by the Authority or the Authority's

Engineer of any Document submitted by the Contractor nor any observation or inspection of the construction of the Project nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Contractor from its obligations, duties and liabilities under this Agreement, Applicable Laws and Applicable Permits; and

- b) The Authority shall not be liable to the Contractor by reason of any review, comment, approval, observation or inspection referred to in Sub-clause (a) above.

## **25.6 Exclusion of implied warranties etc.**

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

## **25.7 Survival**

25.7.1 Termination shall:

- a) not relieve the Contractor or the Authority, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and
- b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

25.7.2 All obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination.

## **25.8 Entire Agreement**

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject

hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Contractor arising from the Request for Qualification or Request for Proposals and bid submissions, as the case may be, shall be deemed to form part of this Agreement and treated as such.

#### **25.9 Severability**

If for any reason whatsoever, any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

#### **25.10 No partnership**

This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

#### **25.11 Third parties**

This Agreement is intended solely for the benefit of the Parties, and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

#### **25.12 Successors and assigns**

This Agreement shall be binding upon, and inure to the benefit of the Parties and their respective successors and permitted assigns.

#### **25.13 Notices**

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

- a) in the case of the Contractor, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Contractor may from time to time designate by notice to the Authority; provided that notices or other communications to be given to an address outside the city specified in Sub-clause (b) below may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, airmail or by courier, be sent by facsimile or e-mail to the person as the Contractor may from time to time designate by notice to the Authority;

Attention:

{ Designation:

Address:

Fax No:

Email: }

- b) in the case of the Authority, be given by facsimile or e-mail and by letter delivered by hand and be addressed to the person named below with a copy delivered to the Authority Representative or such other person as the Authority may from time to time designate by notice to the Contractor; provided that if the Contractor does not have an office in the same city as the Authority, it may send such notice by facsimile or e-mail and by registered acknowledgement due, air mail or by courier;

{ Designation:

Address:

Fax No:

Email: } ; and

- c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working day following the date of its delivery.

#### **25.14 Language**

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

#### **25.15 Counterparts**

This Agreement may be executed in two counterparts, each of which, when executed and delivered, shall constitute an original of this Agreement.

#### **25.16 Confidentiality**

The Parties shall treat the details of this Agreement as private and confidential, except to the extent necessary to carry out obligations under it or to comply with Applicable Laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the Works in any trade or technical paper or elsewhere without the previous consent of the Authority.

#### **25.17 Copyright and Intellectual Property rights**

25.17.1 As between the Parties, the Authority shall retain the copyright and other Intellectual Property rights in the Authority's Documents and other design documents made by (or on behalf of) the Authority. The Authority shall be deemed (by signing this Agreement) to give to the Contractor a non-terminable transferable non-exclusive royalty-free license to copy, use and communicate the Authority's Documents, including making and using modifications of them. This licenses hall:

- (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
- (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Authority's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
- (c) in the case of Authority's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by this Agreement, including replacements of any computers supplied by the Authority:

25.17.2 The Authority's Documents and other design documents made by (or on behalf of) the Authority's shall not, without the Authority's consent, be used, copied or communicated to a third party by (or on behalf of) for purposes other than those permitted under this Clause25.17.

25.17.3 As between the Parties, the Authority shall retain the copyright and other Intellectual Property rights in this Agreement and other documents made by (or on behalf of) the Authority. The Contractor may, at its cost, copy, use, and



obtain communication of these documents for the purposes of this Agreement. They shall not, without the Authority's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the contract.

#### **25.18 Limitation of Liability**

25.18.1 Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with this Agreement.

25.18.2 The total liability of one Party to the other Party under and in accordance with the provisions of this Agreement, save and except as provided in Articles 21 and 23, shall not exceed the Contract Price. For the avoidance of doubt, this Clause shall not limit the liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party

#### **25.19 Transportation and Office Space at Site to the Client :**

25.19.1 A SUV vehicle with fuel and driver for day to day work/visit of site/any other related work and a well furnished office space with all amenities including supporting staffs should be provided by the contractor to the Client.

## ARTICLE 26

### DEFINITIONS

#### 26.1 Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

**“Accounting Year”** means the financial year commencing from the first day of April of any calendar year and ending on the thirty-first day of March of the next calendar year;

**“Advance Payment”** shall have the meaning as set forth in Clause 17.2.1;

**“Affected Party”** shall have the meaning as set forth in Clause 19.1;

**“Affiliate”** means, in relation to either Party {and/or Members}, a person who controls, is controlled by, or is under the common control with such Party {or Member} (as used in this definition, the expression “control” means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

**“Agreement”** means this Agreement, its Recitals, the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement;

**“Applicable Laws”** means all laws, brought into force and effect by GOI or the State Government(s) including rules, regulations and notifications made there under, and judgments, decrees, injunctions, writs and orders of any court of record, applicable to this Agreement and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of this Agreement;

**“Applicable Permits”** means all clearances, licenses, permits, authorizations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained under Applicable Laws in connection with the construction of the Project during the subsistence of this Agreement;

**“Appointed Date”** means date of this Agreement.

**“Arbitration Act”** means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof, as in force from time to time;

**“Authority”** shall have the meaning attributed thereto in the array of Parties

hereinabove as set forth in the Recitals;

**“Authority Default”** shall have the meaning as set forth in Clause 21.2.1;

**“Authority’s Engineer”** shall have the meaning as set forth in Clause 16.1.1;

**“Authority Representative”** means such person or persons as may be authorised in writing by the Authority to act on its behalf under this Agreement and shall include any person or persons having authority to exercise any rights or perform and fulfill any obligations of the Authority under this Agreement;

**“Bank”** means a bank in corporate in India and having a minimum net worth of Rs.1,000 crore (Rupees one thousand crore) or any other bank acceptable to the Authority;

**“Bank Rate”** means the rate of interest specified by the Reserve Bank of India from time to time in pursuance of section 49 of the Reserve Bank of India Act, 1934 or any replacement of such Bank Rate for the time being in effect;

**“Base Date”** means the last date of that calendar month, which date precedes the Bid Due Date by at least 28 (twenty-eight) days;

**“Bid”** means the documents in their entirety comprised in the bid submitted by the [selected bidder] in response to the Request for Proposals in accordance with the provisions thereof and **“Bids”** shall mean the bids submitted by any and all pre-qualified bidders;

**“Bid Security”** means the bid security provided by the Contractor to the Authority in accordance with the Request for Proposals, and which is to remain in force until substituted by the Performance Security;

**“CPI (IW)”** means the Consumer Price Index for Industrial Workers as published by the Labour Bureau, Government of India and shall include any index which substitutes the CPI (IW), and any reference to CPI (IW) shall, unless the context otherwise requires, be construed as a reference to the CPI (IW) published for the period ending with the preceding month, save and except that for the purposes of annual revision of the Fixed Charge in accordance with the provisions of Clause 25.3, the revision due on April 1 of any year shall be computed with reference to CPI (IW) as on January 31 of that year;

**“Change in Law”** means the occurrence of any of the following after

the Base Date:

- i. the enactment of any new Indian law;
- ii. the repeal, modification or re-enactment of any existing Indian law;
- iii. the commencement of any Indian law which has not entered into

- effect until the Base Date;
- iv. a change in the interpretation or application of any Indian law by a judgement of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Base Date; or
- v. any change in the rates of any of the Taxes or royalties that have a direct effect on the Project;

**“Change of Scope”** shall have the meaning as set forth in Article 13;

**“Change of Scope Notice”** shall have the meaning as set forth in Clause 13.2.1;

**“Change of Scope Order”** shall have the meaning as set forth in Clause 13.2.4;

**“Completion Certificate”** shall have the meaning as set forth in Clause 12.4.1;

**“Joint Venture”** means the Joint Venture of entities which have formed a joint venture for implementation of this Project;

**“Construction”** shall have the meaning as set forth in Clause 1.2.1 (f);

**“Construction Period”** means the period commencing from the Appointed Date and ending on the date of the Completion Certificate;

**“Contract Price”** means the amount as specified in Clause 17.1.1;

**“Contractor”** shall have the meaning attributed thereto in the array of Parties herein above as set forth in the Recitals;

**“Contractor Default”** shall have the meaning as set forth in Clause 21.1.1;

**“Cure Period”** means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

- ☐ commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;
- ☐ not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and
- ☐ not in any way be extended by any period of Suspension under this Agreement;

provided that if the cure of any breach by the Contractor requires any reasonable action by the Contractor that must be approved by the Authority or the Authority’s Engineer hereunder, the applicable Cure Period shall be extended by the period taken by the Authority or the Authority’s, Engineer to accord their approval;

**“Damages”** shall have the meaning as set forth in paragraph of Clause 1.2.1;

**“Defect”** means any defect or deficiency in Construction of the Works or any part thereof, which does not conform with the Specifications and Standards;

**“Defects Liability Period”** shall have the meaning as set forth in Clause 15.1.1;

**“Dispute”** shall have the meaning as set forth in Clause 24.1.1;

**“Dispute Resolution Procedure”** means the procedure for resolution of Disputes as set forth in Article 24;

**“Drawings”** means all of the drawings, calculations and documents pertaining to the Project as set forth in Schedule-H, and shall include ‘as built’ drawings of the Project;

**“Document” or “Documentation”** means documentation in printed or written form, or in tapes, discs, drawings, computer programmes, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form;

**“Emergency”** means a condition or situation that is likely to endanger the safety or security of the individuals on or about the Project, including Users thereof, or which poses an immediate threat of material damage to the Works or any of the Project Assets;

**“Encumbrances”** means, in relation to the Project, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations, and shall include any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Project, where applicable herein but excluding utilities referred to in Clause-9.1;

**“Final Payment Certificate”** shall have the meaning as set forth in Clause 17.12.1;

**“Final Payment Statement”** shall have the meaning as set forth in Clause 17.10.1;

**Force Majeure” or “Force Majeure Event”** shall have the meaning ascribed to it in Clause 19.1;

**“GAD” or “General Arrangement Drawings”** shall have the meaning as set forth in Clause 4.1.3 (b);

**“GOI” or “Government”** means the Government of India;

**“Good Industry Practice”** means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which are generally and reasonably expected from a reasonably skilled and experienced contractor engaged in the same type of undertaking as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Contractor in accordance with this Agreement, Applicable Laws and Applicable Permits in reliable, safe, economical and efficient manner;

**“Government Instrumentality”** means any department, division or sub-division of the Government or the State Government and includes any commission, board, authority, agency or municipal and other local authority or statutory body, including panchayat, under the control of the Government or the State Government, as the case may be, and having jurisdiction over all or any

part of the Project or the performance of all or any of the services or obligations of the Contractor under or pursuant to this Agreement;

**“Indemnified Party”** means the Party entitled to the benefit of an indemnity pursuant to Article 23;

**“Indemnifying Party”** means the Party obligated to indemnify the other Party pursuant to Article 23;

**“Indirect Political Event”** shall have the meaning as set forth in Clause 19.3;

**“Insurance Cover”** means the aggregate of the maximum sums insured under the insurances taken out by the Contractor pursuant to Article 18, and includes all insurances required to be taken out by the Contractor under Clauses 18.1 and 18.9 but not actually taken, and when used in the context of any act or event, it shall mean the aggregate of the maximum sums insured and payable or deemed to be insured and payable in relation to such act or event;

**“Intellectual Property”** means all patents, trademarks, service marks, logos, get-up, trade names, internet domain names, rights in designs, blue prints, programmes and manuals, drawings, copyright (including rights in computer software), database rights, semi-conductor, topography rights, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;

**“Interim Payment Certificate”** or **“IPC”** means the interim payment certificate issued by the Authority’s Engineer for payment to the Contractor in respect of Contractor’s claims for payment raised in accordance with the provisions of this Agreement;

**“LOA”** or **“Letter of Acceptance”** means the letter of acceptance referred to in Recital (D);

**“Lead Member”** shall, in the case of a Joint Venture, mean the member of such Joint Venture who shall have the authority to bind the Contractor and each member of the Joint Venture; and shall be deemed to be the Contractor for the purposes of this Agreement;

**“Manuals”** shall mean the manuals;

**“Material Adverse Effect”** means a material adverse effect of any act or event on the ability of either Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a material financial burden or loss to either Party;

**“Materials”** “are all the supplies used by the Contractor for incorporation in the Works of the Project;

**“Non-Political Event”** shall have the meaning as set forth in Clause 19.2;

**“Parties”** “means the parties to this Agreement collectively and **“Party”** shall mean any of the parties to this Agreement individually;

**“Performance Security”** “shall have the meaning as set forth in Clause 7.1.1;

**“Plant”** means the apparatus and machinery intended to form or forming part of the

Works;

**“Political Event”** shall have the meaning as set forth in Clause 19.4;

**“Programme”** shall have the meaning as set forth in Clause 10.1.3;

**“Project”** means the construction of the Project in accordance with the provisions of this Agreement, and includes all works, services and equipment relating to or in respect of the Scope of the Project;

**“Project Assets”** means all physical and other assets relating to (a) tangible assets such as civil works and equipment including [foundations, embankments, pavements, road surface, interchanges, bridges, culverts, road over-bridges, drainage works, traffic signals, sign boards, kilometre-stones, electrical systems, communication systems, rest areas, relief centres, maintenance depots and administrative offices]; and (b) Project Facilities situated on the Site;

**“Project Completion Date”** means the date on which the last Provisional Certificate is issued;

**“Project Completion Schedule”** means the progressive Project Milestones set forth in Schedule-I for completion of the Project on or before the Scheduled Completion Date;

**“Project Facilities”** means all the amenities and facilities to be constructed on the Site,

**“Project Milestone”** means the project milestone as set forth in Schedule-I and includes the Scheduled Completion Date;

**“Provisional Certificate”** shall have the meaning as set forth in Clause 12.2.1;

**“Punch List”** shall have the meaning as set forth in Clause 12.2.1;

**“Quality Assurance Plan “or “QAP”** shall have the meaning as set forth in Clause 11.2.1;

**“Re.”, “Rs.” or “Rupees” or “Indian Rupees”** means the lawful currency of the Republic of India;

**“Request for Proposals” or “RFP”** shall have the meaning as set forth in Recital (C);

**“Retention Money”** shall have the meaning as set forth in Clause 7.5.1;

**“Scheduled Completion Date”** shall be the date as set forth in Clause 10.3.1;

**“Scope of the Project”** shall have the meaning as set forth in Clause 2.1;

**“Section”** means a part of the Project;

**“Site”** shall have the meaning as set forth in Clause 8.1;

**“Specifications and Standards”** means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Project and any modifications thereof, or additions thereto, as included in the design and engineering for the Project submitted by the Contractor to, and expressly approved by, the Authority;

**Stage Payment Statement”** shall have the meaning as set forth in Clause 17.4;

“**State**” means the State or the Union Territory, as the case may be, in which the headquarters of the Authority are situate and “**State Government**” means the government of that State or Union Territory;

“**Structures**” means an elevated [road or a flyover], as the case may be;

“**Sub-contractor**” means any person or persons to whom a part of the Works has been subcontracted by the Contractor and the permitted legal successors in title to such person, but not an assignee to such person;

“**Suspension**” shall have the meaning as set forth in Clause 20.1;

“**Taxes**” means any Indian taxes including excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, Materials, equipment and services incorporated in and forming part of the Project charged, levied or imposed by any Government Instrumentality, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income;

“**Termination**” means the expiry or termination of this Agreement;

“**Termination Notice**” means the communication issued in accordance with this Agreement by one Party to the other Party terminating this Agreement;

“**Termination Payment**” means the amount payable by either Party to the other upon Termination in accordance with Article 21;

“**Terms of Reference**” or “**TOR**” shall have the meaning as set forth in Clause 16.2.1;

“**Tests**” means the tests set forth in Schedule-J to determine the completion of Works in accordance with the provisions of this Agreement;

“**Time Extension**” shall have the meaning as set forth in Clause 10.4.1;

“**User**” means a person who uses or intends to use the Project or any part thereof in accordance with the provision of this Agreement and Applicable Laws;

“**Valuation of Unpaid works**” shall have the meaning as set forth in Clause 21.5.1;

“**WPI**” means the wholesale price index for various commodities as published by the Ministry of Commerce and Industry, GOI and shall include any index which substitutes the WPI, and any reference to WPI shall, unless the context otherwise requires, be construed as a reference to the WPI published for the period ending with the preceding month; and

“**Works**” means all works including survey and investigation, design, engineering, procurement, construction, Plant, Materials, temporary works and other things necessary to complete the Project in accordance with this Agreement.



**IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND  
DELIVERED THIS AGREEMENT AS OF THE DAY, MONTH AND  
YEAR FIRST ABOVE WRITTEN.**

SIGNED, SEALED AND DELIVERED

SIGNED, SEALED AN DELIVERED

For and on behalf of

For and on behalf of

[THE AUTHORITY] by:

THE CONTRACTOR by:

(Signature)

(Name)

(Designation)

(Signature)

(Name)

(Designation)

In the presence of:

1.

2.

{ COUNTERSIGNED and accepted by:

Name and particulars members ‘contractor }

## **Schedules**

## SCHEDULE – A

*(See Clauses 2.1 and 8.1)*

### **SITE OF THE PROJECT**

#### **1 The Site**

- a) Jhun Jhunwala Adarsh Balika Uchha Vidyalaya
  - b) Mokshada Girls High School
  - c) Rajkiya Balika Inter Vidyalaya
  - d) Rajkiya Intermediate Zila School
  - e) Rajkiya Saro Sahun Madhya Vidyalaya
- 1.2 The dates of providing the land/site to the Contractor within 15 days of agreement.
- 1.3 An inventory of the Site including the land, building, trees and any other immovable property on, or attached to, the Site shall be prepared jointly by the Authority Representative and the Contractor, and such inventory shall form part of the memorandum referred to in Clause 8.2.1 of this Agreement.
- 1.4 The alignment plans of the Project are specified in Annex-III. In the case of sections where no modification in the existing alignment of the Project is contemplated, the alignment plan has not been provided. Alignment plans have only been given for sections where the existing alignment is proposed to be modified.

## SCHEDULE – F

*(See Clauses 7.1.1, 7.5.3 and 19.2)*

### FORM OF BANK GUARANTEE

Annex-I

*(See Clause 7.1.1)*

#### Form of Guarantee for Performance Security

.....,

.....,

.....,

#### WHEREAS:

- a) .....(insert name and address of the contractor) (hereinafter called the “**Contractor**”) and (insert name and address of the project authority), (hereinafter called the “**Authority**”) have entered into an agreement (hereinafter called the “**Agreement**”) for modernization of schools in Bhagalpur subject to and in accordance with the provisions of the Agreement
- b) The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Construction Period and Defects Liability Period (as defined in the Agreement) in a sum of Rs..... cr. (Rupees..... crore) (the “Guarantee Amount”).
- c) We, ..... through our branch at ..... (the “Bank”) have agreed to furnish this bank guarantee (hereinafter called the “Guarantee”) by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and

affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees and undertakes to pay to the Authority upon occurrence of any failure or default in the due and faithful performance of all or any of the Contractor's obligations, under and in accordance with the provisions of the Agreement during the {Construction Period/ Defects Liability Period} on its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of a Sr. Manager of the Authority, that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and/ or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers

exercisable by the Authority against the Contractor, and either to enforce or for bear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfillment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the periods specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect on <sup>§</sup>. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an

officer of the Authority that the envelope was so posted shall be conclusive.



This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement

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

SIGNED, SEALED AND

DELIVERED For and on behalf of the

Bank by:

(Signatu

re)

(Name)

(Designation) (Code Number)

(Address)

NOTES:

& The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.

& The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

Annex – II

(Schedule - F)

(See Clause 7.5.3)

**Form of Guarantee for Withdrawal of Retention Money**

.....,

.....,

.....,

**WHEREAS:**

- a) .....(insert name and address of the contractor) (hereinafter called the “**Contractor**”) has executed an agreement (hereinafter called the “**Agreement**”) with the (insert name and address of the project authority), (hereinafter called the “**Authority**”) for modernization of schools in Bhagalpur subject to and in accordance with the provisions of the Agreement.
- b) In accordance with Clause 7.5.3 of the Agreement, the Contractor may withdraw the retention money (herein after called the “**Retention Money**”) after furnishing to the Authority a bank guarantee for an amount equal to the proposed withdrawal.
- c) We, ..... through our branch at (the “**Bank**”) have agreed to furnish this bank guarantee (hereinafter called the “**Guarantee**”) for the amount of Rs. .... cr. (Rs..... crore) (the “**Guarantee Amount**”).

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

1. The Bank hereby unconditionally and irrevocably undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums upto an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for

its demand and/or for the sum specified therein.

2. A letter from the Authority, under the hand of an officer not below the rank of a Chief Engineer of the Authority, that the Contractor has committed default in the due and faithful performance of all or any of its obligations for under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final, and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Retention Money and any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the

Authority in respect of or relating to the Retention Money.

7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect 90 (ninety) days after the date of the Completion Certificate specified in Clause 12.4 of the Agreement.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.  
Signed and sealed this ..... day of ....., 20..... at .....

SIGNED, SEALED AND DELIVERED

For and on behalf of the

Bank by: (Signature)

(Name) (Designation) (CodeNumber)

(Address)

NOTES:

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

Annex – III

(Schedule - F) (See Clause 19.2)

**Form of Guarantee for Advance Payment**

.....,  
.....,  
.....,

**WHEREAS:**

(A) .....(insert name and address of the contractor) (hereinafter called the “**Contractor**” has executed an agreement (hereinafter called the “**Agreement**”) with the (insert name and address of the project authority), (hereinafter called the “**Authority**”) for modernization of schools, Bhagalpur(“**Project**”),subjecttoandinaccordancewiththeprovisionsof theAgreement

(B) In accordance with Clause 17.2 of the Agreement, the Authority shall make to the Contractor an advance payment with a simple interest at the rate of 10% (ten per cent) per annum (herein after called “**Advance Payment**”) equal to 10% (ten per cent) of the Contract Price; and that the Advance Payment shall be made in minimum two installments subject to the Contractor furnishing an irrevocable and unconditional guarantee by a scheduled bank for an amount equivalent to 110% (one hundred and ten per cent) of such installment to remain effective till the complete and full repayment of the installment of the Advance Payment as security for compliance with its obligations in accordance with the Agreement. The amount of {first/second/third} installment of the Advance Payment is Rs. .... cr. (Rupees .....crore) and the amount of this Guarantee is Rs. .... cr. (Rupees.....crore)(the “**Guarantee Amount**”)\$.

(C) We, ..... through our branch at (the “**Bank**”) have

agreed to furnish this bank guarantee (*hereinafter called the “Guarantee”*) for the Guarantee Amount.

---

<sup>s</sup> The Guarantee Amount should be equivalent to 110% of the value of the applicable installment.

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

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful repayment on time of the aforesaid installment of the Advance Payment under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of a Chief Engineer of the Authority, that the Contractor has committed default in the due and faithful performance of all or any of its obligations for the repayment of the instalment of the Advance Payment under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.

5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Advance Payment or to extend the time or period of its repayment or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Advance Payment.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the periods specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect on \$ unless a demand or claim under this Guarantee is made in writing on or before the aforesaid date, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time



when it ought to have been delivered in due course of post and in providing such notice when given by post it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.

- m) This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.

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

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature) (Name)

(Designation) (Code Number)

(Address)

NOTES:

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

## SCHEDULE – H

(See Clause 10.2.4)

### **DRAWINGS**

- a)     **Drawings**  
Deleted
  
- b)     **Additional Drawings**  
Deleted

## Annex – I

*(Schedule – H)*

### List of Drawings

**[Note:** All drawings related to civil works shall be provided to the bidder by the Authority]

## SCHEDULE – I

(See Clause 10.3.2)

### PROJECT COMPLETION SCHEDULE

#### 1 Project Completion Schedule

During Implementation period, the Contractor shall comply with the requirements set forth in this Schedule-I 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 Authority of such compliance along with necessary particulars and the same should be approved in the following format by the Authority.

#### 2.0 Project Milestones:

**2.1 As “Time is the essence of the Contract”. The Contractor shall be liable to pay to the Employer, the liquidated damages as per the following milestones :-**

Sr. No.	Milestone	Financial Progress	Time Allowed (from date of start)	Compensation For Delay
1	Milestone 1	1/8 <sup>th</sup> (of whole work)	1/4 <sup>th</sup> (of whole work)	1.) Slippage up to 25% in financial target during the milestone under consideration – 2.5% of the work remained unexecuted in the related time span.
2	Milestone 2	3/8 <sup>th</sup> (of whole work)	1/2 <sup>th</sup> (of whole work)	
3	Milestone 3	3/4 <sup>th</sup> (of whole work)	3/4 <sup>th</sup> (of whole work)	
4	Milestone 4	Full	Full	2.) Slippage exceeding 25% but up to 50% in financial target during the milestone under consideration – 5% of the work remained unexecuted in the related time span.  3.) Slippage exceeding 50% but Up to 75% in financial target during the milestone under consideration – 7.5% of the work remained unexecuted in the related time span.  4.) Slippage exceeding 75% in financial target during the milestone under consideration-- 10% of the work remained unexecuted in the related time span.

The above rate of penalty shall be per day till the progress is covered proportionately. However, the Liquidated damages at milestone 1, 2, and 3 above will be returned to the Contractor in the case of the contractor's progress matches his program of works in the following quarter of the contract period. Otherwise the withheld amount will be forfeited.

In no case the Liquidated damages levied as per milestone 4 will be refunded, irrespective of the fact of having been granted extension of time for such delay, unless such delay is beyond the control of the Contractor at any point of time.

## **2.2 Payment Certificates**

- The Contractor shall submit to the Authority monthly payment invoices of the estimated value of the work completed less the cumulative amount certified previously.
- The Authority's Engineer shall check the Contractor's itemized bills within 10 days and certify the amount to be paid to the Contractor.
- The value of work executed shall be certified by the Engineer and approved by the Authority.

## **2.3 Scheduled Completion Date**

- The Scheduled Completion Date shall be the 12months from the date of agreement.
- On or before the Scheduled Completion Date, the Contractor shall have completed construction in accordance with this Agreement.

## **2.4 Extension of time**

- Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

## SCHEDULE – J

*(See Clause 12.1.2)*

### TESTS ON COMPLETION

#### **1 Schedule for Tests**

- 1.1 The Contractor shall, no later than 30 (thirty) days prior to the likely completion of construction, notify the Authority's Engineer and the Authority of its intent to subject the Project to Tests, and no later than 10 (ten) days prior to the actual date of Tests, furnish to the Authority's Engineer and the Authority detailed inventory and particulars of all works and equipment forming part of Works.
- 1.2 The Contractor shall notify the Authority's Engineer of its readiness to subject the Tests at any time after 10 (ten) days from the date of such notice, and upon receipt of such notice, the Authority's Engineers shall, in consultation with the Contractor, determine the date and time for each Test and notify the same to the Authority whom may designate its representative to witness the Tests. The Authority's Engineer shall thereupon conduct the Tests itself or cause any of the Tests to be conducted in accordance with Article 12 and this Schedule-J.

#### **2 Tests**

- 2.1 Visual and physical test: The Authority's Engineer shall conduct a visual and physical check of implementing works to determine that all works and equipment forming part thereof conform to the provisions of this Agreement. The physical tests shall include[\*\*\*].
- 2.2 Deleted.
- 2.3 Deleted

- 2.4 Other tests: The Authority's Engineer may require the Contractor to carry out or cause to be carried additional tests, in accordance with Good Industry Practice, for determining the compliance of the Project with Specifications and Standards.
- 2.5 Environmental audit: The Authority's Engineer shall carry out a check to determine conformity of the Project with the environmental requirements set forth in Applicable Laws and Applicable Permits.
- 2.6 Safety Audit: The Authority's Engineer shall carry out, or cause to be carried out, a safety audit to determine conformity of the Project with the safety requirements and Good Industry Practice.

**i. Agency for conducting Tests**

All Tests set forth in this Schedule-J shall be conducted by the Authority's Engineer or such other agency or person as it may specify in consultation with the Authority.

**ii. Completion Certificate**

Upon successful completion of Tests, the Authority's Engineer shall issue the Completion Certificate in accordance with the provisions of Article 12.

## SCHEDULE – K

(See Clause 12.2 and 12.4)

### PROVISIONAL CERTIFICATE

- 1) I/We, ..... (Name of the Authority's Engineer), acting as the Authority's Engineer, under and in accordance with the Agreement dated ..... (the "**Agreement**"), for modernization of schools, Bhagalpur (the "**Project**")

(Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been undertaken to determine compliance of the Project with the provisions of the Agreement.

- 2) Works that are incomplete on account of Time Extension have been specified in the Punch

h List appended hereto, and the Contractor has agreed and accepted that it shall complete all such works in the time and manner set forth in the Agreement. In addition, certain minor works are incomplete and these are not likely to cause material inconvenience to the Users of the Project or affect their safety. The Contractor has agreed and accepted that as a condition of this Provisional Certificate, it shall complete such minor works within 30 (thirty) days hereof. These minor works have also been specified in the aforesaid Punch List.

- 3) In view of the foregoing, I/We am/are satisfied that the Project ..... can be safely and reliably placed in service of the Users thereof, and in terms of the Agreement, the Project is hereby provisionally declared fit for entry into operation on this the ..... day of ..... 20.....

4)

ACCEPTED, SIGNED, SEALED AND DELIVERED		ACCEPTED, SIGNED, SEALED AND DELIVERED
For and on behalf of		For and on behalf of
Contractor by:		Authority's Engineer by:



Signature		Signature
Name & Designation		Name & Designation
Address		Address

### COMPLETION CERTIFICATE

- a) I/We, .....(Name of the Authority's Engineer), acting as the Authority's Engineer, under and in accordance with the Agreement dated ..... (the "**Agreement**"), for modernization of schools, Bhagalpur (the "**Project**") ..... through .....

(Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I/We am/are satisfied that the Project can be safely and reliably placed in service of the Users thereof.

- b) 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.....

SIGNED, SEALED AND

DELIVERED For and on

behalf of the Authority's

Engineer by:

(Signature) (Name)

(Designation)

(Address)

## SCHEDULE – L

*(See Clause 18.1.1)*

**DELETED**

## SCHEDULE-M

*(See Clauses 19.4)*

### FORMS OF PAYMENT STATEMENTS

#### 1. Project Milestone

##### Payment Certificates

- The Contractor shall submit to the Authority monthly payment invoices of the estimated value of the work completed less the cumulative amount certified previously.
- The Authority's Engineer shall check the Contractor's itemized bills within 10 days and certify the amount to be paid to the Contractor.
- The value of work executed shall be certified by the Engineer and approved by the Authority.

##### Scheduled Completion Date

- The Scheduled Completion Date shall be the 12 months from the notice to start the work.
- On or before the Scheduled Completion Date, the Contractor shall have completed construction in accordance with this Agreement.

##### Extension of time

- Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

## SCHEDULE – N

*(See Clause 20.1)*

### INSURANCE

#### **1.0 Insurance during Construction Period**

**1.1** The Contractor shall affect and maintain at its own cost, from the Appointed Date till the date of issue of the Completion Certificate, the following insurances for any loss or damage occurring on account of Non-Political Event of Force Majeure, malicious act, accidental damage, explosion, fire and terrorism:

- a) Insurance of Works, Plant and Materials and an additional sum of [15% (fifteen per cent)] of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature; and
- b) insurance for the Contractor's equipment and Documents brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

**1.2** The insurance under paragraph 1.1 (a) and (b) above shall cover the Authority and the Contractor against all loss or damage from any cause arising under paragraph 1.1 other than risks which are not insurable at commercial terms.

#### **2. Insurance for Contractor's Defects Liability**

The Contractor shall effect and maintain insurance cover for the Works from the date of issue of the Completion Certificate until the end of the Defects Liability Period for any loss or damage for which the Contractor is liable and which arises from a cause occurring prior to the issue of the Completion Certificate. The Contractor shall also maintain other insurances for maximum sums as may be required under Applicable Laws and in accordance with Good Industry Practice.

#### **3. Insurance against injury to persons and damage to property**

**3.1** The Contractor shall insure against its liability for any loss, damage, death or bodily injury, or damage to any property (except things insured under Paragraphs 1 and 2 of this Schedule or to any person (except persons insured under Clause 20.9), which may arise out of the Contractor's performance of this Agreement. This insurance shall be for a limit per occurrence of not less than the amount specified below with no limit

on the number of occurrences.

The insurance cover shall be not less than estimated cost.

- 3.2 The insurance shall be extended to cover liability for all loss and damage to the Authority's property arising out of the Contractor's performance of this Agreement excluding:

The Authority's right to have the construction works executed on, over, under, in or through any land, and to occupy this land for the Works; and damage which is an unavoidable result of the Contractor's obligations to execute the Works.

#### **4 Insurance to be in joint names**

The insurance under paragraphs 1 to 3 above shall be in the joint names of \_\_\_\_\_ the Contractor and the Authority.

## **SECTION - 5**

### **SECTION 5: SPECIAL CONDITIONS OF CONTRACT**

- 5.1 **General:** The special conditions are supplementary instructions to the tenders and shall form part of the contract.
- 5.2 **Drawing:** All Drawings/Layout plans provided by the Authority. The Bidder will submit the detailed Contract execution plan within 15 days from date of issuing Work Order or Agreement whichever is earlier. The same shall be reviewed and approved by BSCL or the PDMC .These 15 days period is included in stipulated time of Contract Period. Modernisation of school, Bhagalpur shall be carried out as per the drawings provided by BSCL.
- 5.3 **Data to be furnished by the Bidder:** The Bidder shall submit the following information to BSCL.
- 5.4 Proposed constructions Programme and time schedule showing sequence of operations within **15 days** of receipt of notice to proceed with the work in pursuance of the conditions of contract.
- 5.5 **Action when the progress of any item of work is unsatisfactory:** If the progress of an item of work during construction, which is important for timely completion of work is unsatisfactory, BSCL shall notwithstanding that the general progress of work is satisfactory, after giving the Bidder **15 days'** notice in writing get the said work executed by employing other means including other labour/Bidder etc. and the Bidder will have no claim for compensation for any loss sustained by him owing to such action.
- 5.6 In case if any of the work under this contract are found unsatisfactorily by BSCL, the BSCL shall either request the bidder to rectify the defect immediately or at his discretion may have it done by others (vendor or contractor) and deduct the actual amount incurred as per market rate plus 15 % extra incurred in such works from the bidders.
- 5.7 **Inspection and Tests:** Except as otherwise provided in here of all material and workmanship if not otherwise designated by the specification shall be subject to inspection, examination and test by BSCL at any and all times during manufacture and/or construction and at any/all places where such manufacture or constructions are carried on. The BSCL shall have the right to reject defective materials and workmanship or require its corrections. Rejected workmanship shall be satisfactorily replaced with the proper material without charge thereof and the Bidder shall properly segregate and remove the rejected material from the premises. If the Bidder fails to proceed at once with the replacement of the rejected material and/or the construction of defective workmanship BSCL may replace such material and/or correct such workmanship and charge the cost thereof to the Bidder.

The Bidder shall be liable for replacement of defective work up to the time of completion of DLP in accordance with the conditions of contract of all



- work to be done under the contract. The Bidders shall furnish promptly without additional charge all facilities, labour and material necessary for the safe and convenient inspection and tests that may be required by BSCL. All inspections and tests by the departments shall be performed in such a manner as to not unnecessarily delay the work. Special full size and performance tests shall be charged with any additional cost of inspection when materials and workmanship are not kept ready by the Bidder at the time of inspection.
- 5.8 **Removal of temporary work, Plant & Surplus materials:** Prior to final acceptance of the completed work, but excepting as otherwise expressly directed or permitted in writing, the Bidder shall, at his own expenses remove from the site and dispose of all the temporary structures including buildings, all plant and surplus materials, and all rubbish and debris for which he is responsible to the satisfaction of BSCL.
- 5.9 **Possession prior to completion:** BSCL shall have the right to take possession of or use any completed part of the work. Such possession or use shall not be deemed as an acceptance of any work not completed in accordance with the contract.
- 5.10 **Damage to works:** The works whether fully completed or incomplete, all the materials, machinery, plants, tools, temporary building and other things connected therewith shall remain at the risk and in the sole charge of the Bidder until the completed work has been delivered to BSCL and till completion certificate has been obtained from BSCL. Until such delivery of the completed work, the Bidder shall at his own cost take all precautions reasonably to keep all the aforesaid works, materials, machinery, plants, temporary buildings and other things connected there with free from any loss, damages and in the event of the same or any part thereof being lost or damaged, he shall forthwith reinstate and make good such loss or damages at his own cost.
- 5.11 **Examination and tests on completions:** On the completion of the work and not later than three months thereafter, BSCL shall make such examination and tests of the work as may then seem to him to be possible, necessary or desirable, and the Bidder shall furnish free of cost any materials and labour which may be necessary thereof and shall facilitate in every way all operations required by BSCL, in making examination and tests.
- 5.12 **Climatic Conditions:** BSCL may order the Bidder to suspend any work that may be subject to damage by climatic conditions and no claims of the Bidder will be entertained by the department on this account.
- 5.13 As per the Ministry of Environment and Forest Guidelines 2010 and Ministry of Urban Development notifications, the Site area shall be protected from dust by fixing Green Fencing around the Construction site area.

The Contractor is instructed to strictly adhere to the following at his own cost.

- a) Supply and Fixing Green barriers and wind breaking walls around their sites.
- b) Cover tarpaulin on scaffolding around area of construction,
- c) Do not store construction material, particularly sand, on any part of the street, roads in any colony,
- d) Cordon the work area with proper fencing by other means with due consideration of safety of workers, public, etc.
- e) Dust emissions from construction site are controlled.
- f) Sprinklers should be compulsorily used at the site and Wet jets in grinding and stone cutting must be used.
- g) The work area shall be well illuminated during nights.

5.14 **Safety regulations:** During the entire contract period, while carrying out this works indicated in this tender, the Bidder will ensure compliance of all safety regulations as provided in the Safety Code (**Annexure - D**). The bidder will be responsible for safety of the works.

5.15 **The Bidder will make his own arrangement:** for supply of water, light & power for his works and labour camps etc.: The Bidder will make his own arrangement for supply of water, light and power for his works and labour camps etc. BSCL will not entertain any claim what so ever for any failure or break down etc. in supply of to the Bidder. The Bidder will supply and fix his own tested meter of the approved make but the meter will be kept in the custody of the department.

5.16 **Interference with other Bidders:** The Bidder must not interfere with other Bidders who may be employed simultaneously or otherwise by the department at the Site. He will at no time engage departmental labour or that of other Bidders without the written permission of BSCL. **Bidder is fully responsible for cause of damages of the adjoining works of different works at site and the same cost of rectification of damages shall be recovered from the Bidder as per BSCL's instructions.**

5.17 **Regulations and bye laws:** The Bidder shall conform to the regulations, bye-laws any other statutory rules made by any local authorities or by the Government and shall protect and indemnify BSCL, against any claim or liability arising from or based on the violation of any such laws, safety, theft, ordinance, regulation, orders, decrees etc.

5.18 **Site Order Book:** A site order book shall be kept in the site of the work. As far as possible all orders regarding the works are to be entered in this book. All entries therein shall be signed by the BSCL or PDMC in direct charge of the work and the Bidder or his representatives. In the important cases the Senior Manager of BSCL will countersign the entries which the

Bidders or his representative shall be bound to take note of all instructions meant for the Bidder as entered in the site order book without having to be called for separately to note them. BSCL shall submit periodically copies of the remarks of the site order book to the Senior Manager, BSCL for record and to the Bidder for compliance and report.

- 5.19 **Conversion of units:** Whenever in the contract agreement dimensions and units have been expressed in F.P.S. system, the same will be converted in to metric system units by applying the standard conversion table of Indian Standard Institution so as to derive the corresponding figure arithmetically and the Bidder will have to accept the figures so derived without any claim or compensation whatsoever.
- 5.20 **Rights of other Bidders and persons:** If, during the progress of the work covered by this contract, it is necessary for other Bidders or persons to do work in or about the site of work, the Bidder shall afford such facilities, as BSCL may require.
- 5.21 **Employment of technical persons:** The Bidder shall employ or produce evidence of having in his employment of the qualified technical person as indicated in the RFP from the Institution recognized by the Government of Bihar / Govt. of Other State / Govt. of India
- 5.22 The above is the minimum requirement of Manpower. However, contractor shall access the actual requirement and deploy the necessary manpower. No extra cost will be paid for deployment of extra manpower if required.
- 5.23 The technical staff shall be got approved in writing from BSCL (whose approval may be withdrawn any time) for supervision of works and to receive direction from the Engineer of the work on behalf of the contractor. The supervisory staff of the contractor will not be changed without the approval of BSCL.

#### 5.1 **Bonus for early completion**

In the event that the Project Completion Date occurs prior to the Scheduled Completion Date, the Contractor shall be entitled to receive a payment of bonus equivalent to 1% (one percent) of the Contract Price per month computed on per day basis, shall be payable to the contractor subject to a maximum of 5% (five per cent) of the Contract Price. Provided, however, that the payment of bonus, if any, shall be made only after the issue of the Completion Certificate.

### **Additional Special Conditions**

1. Contractor is advised to read carefully all chapters and give complete information regarding his proposals, substantiating the same with calculations, drawings literature, with clear reference to any standards adopted (which are not mentioned in the tender), in such manner that there is no ambiguity or nothing is left to chance. All relevant information, so as to make the proposal understandable shall be given. Vague remarks and remarks like “will be given later” are not acceptable. If in the opinion of BSCL, the proposal is grossly incomplete, this will form sufficient reason for complete rejection of the tender on technical grounds.
2. Contractor shall note that this is an Item rate tender. The bidder shall give rate for complete work. However, his proposals are subject to scrutiny and approval for unit wise/sub-unit wise progressive payments by the competent authority. He shall therefore take utmost precaution to offer very standard equipment manufactured by only reputed manufacturers (wherever the makes are specified, the same shall be offered). However, the bidder should note that after the tenders are opened, all modifications, corrections, changes should be carried out entirely to the satisfaction of BSCL at no extra cost to BSCL. The contractor shall not be allowed to change the price quoted.
3. All the equipment installed shall be thoroughly tested at the time of commissioning of the plant and all initial defects shall be rectified to the entire satisfaction of the engineer. Damaged or non-working parts shall be replaced at no extra cost to BSCL.
4. **Training of the BSCL, staff before Handling over the Equipment/Instruments.** As there is fair amount of automation specified, there will be very large number of small components, which form units of equipment. In order that the BSCL staff engaged on operations and maintenance becomes proficient in understanding and handling the equipment correctly, the contractor will have to organize training programme in the manufacturers’ shops as well as on site during actual operation of the plant. For this purpose, he will have to employ suitably qualified, trained personnel to carry out this training. The training period is for 7 days after commissioning of the plant or for such extra period before commissioning in the workshops. A mutually agreed programme shall be formulated during the execution, which will be binding on the contractor.
5. **Third Party Inspection:** BSCL reserves the right to appoint any organization/ institution for checking of design, & quality & quantity checks of works at least 5% of total frequency during the contract & no additional cost shall be payable by BSCL on this account.
6. The overall development of site at which processing sheds shall be constructed inclusive of roads, horticulture, lights and other utilities services

such as water supply, sewerage, drainage etc. shall be provided by contractor agency as per drawings approved by BSCL if required.

7. The Bidder shall liable for all statutory clearances inclusive from Bihar Pollution Control Board for execution and till operation period.
8. Bidder shall liable to all consequences arising there upon.
9. During the Construction Period, the Contractor shall maintain, at its cost, the Project Site and the assets thereon so that the traffic and commercial worthiness and safety thereof are at no time materially inferior as compared to their condition 7 (seven) days prior to the date of this Agreement, and shall undertake the necessary repair and maintenance works for this purpose.
10. The Construction work shall be executed by the bidder strictly as per technical specification of Bihar Construction Department/CPWD. In case of ambiguity or dispute arises, Bihar Construction Department (BCD) specification will prevail over.
11. The bidder shall strictly abide the General Conditions of contract and Special Conditions of Contract of the RFP document. In no case, the bidder may violate the above conditions and no amendments should be made in the GCC or SCC.
12. In case of arbitration or dispute of the Contract, the Hon'ble High court of Patna, Bihar is the Jurisdiction.
13. The RFP document shall form part of Contract Agreement. The bidder should download all pages of the RFP document and must sign all pages (authorized signatory of the Contract agency) before uploading the RFP document in the [www.eproc2.bihar.gov.in](http://www.eproc2.bihar.gov.in) portal

## **SECTION 6**

### **CONTRACT DATA**

## CONTRACT DATA

Clause Reference With respect to section 4.

Items marked “N/A” do not apply in this contract.

	Name: BSCL. Address: Municipal Corporation, Court Compound, Bhagalpur Name of Employer’s Representative: - Chief Executive Officer, Bhagalpur Smart City Limited, Bhagalpur	[ Cl.1.1 of ITB of Section - 1]
	The Engineer is: - To be Informed Later.	GCC Cl .16 of Article - 16
	The Dispute Review Expert will be Expert Mediator of the Govt. of India rules.	[GCC Cl. 24 of Article-24]
	The Operation and Maintenance Period for 5 years .	[GCC Cl. 15 of Article-15]
	The commencement date shall from the date of agreement	[GCC Cl. 10 of Article - 10]
	The Intended Completion Date for the whole of the Works is 12 months after agreement. For detail, refer Important Milestones	[GCC Cl 12 of Article - 12]
	Mile Stone for physical works to be completed	12 Month Period from the start date
	Milestone 1 i.e. 25 % of work	3 months
	Milestone 2 i.e. 50 % of work	6 months
	Milestone 3 i.e. 75 % of work	9 months
	Milestone 4 i.e. 100 % of work	12 months
	The Site is located at Bhagalpur	[ [Cl.7 of ITB)
	The name and identification number of the Contract is	[ITB CL 1.1]
	The work consists of Modernization of schools under Smart City Mission in Bhagalpur, Bihar	[Cl. 1.1 of ITB)
	The following documents also form part of the Contract	[GCC Cl 1.0 of Article -1]
	The law which applies to the Contract is the law of Union of India	[GCC Cl.25.1 of Article - 25]
	The language of the Contract documents is English	[GCC Cl.25.14 of Article - 25]
	The limit of sub-contracting	N/A
	The Schedule of Key Personnel	[Annexure – II of ITB of section 2)

	The minimum insurance cover for physical property, injury and death is Rs.5 lakhs per occurrence with the number of occurrences limited to four. After each occurrence, contractor will pay additional premium necessary to make insurance valid for four occurrences always till Operation and Maintenance Period of the Project.	[GCC. 18.0 of Article 17.0)
	The Site Possession Dates shall be 15 days after the issue of LoA.	[GCC Cl.8.2 of Article 8]
	The period for submission of the programme for approval of Engineer shall be 30 days from the appointed date	[GCC Cl.10.1.3 of Article 10] 10.1.3
	The currency of the Contract is Indian Rupees	[GCC Cl.17.2 of Article 17)
	<p>Amount of liquidated damages for delay in Completion of works:</p> <p><b>1.)</b> Slippage up to 25% in financial target during the milestone under consideration – 2.5% of the work remained unexecuted in the related time span.</p> <p><b>2.)</b> Slippage exceeding 25% but up to 50% in financial target during the milestone under consideration – 5% of the work remained unexecuted in the related time span.</p> <p><b>3.)</b> Slippage exceeding 50% but Up to 75% in financial target during the milestone under consideration –7.5% of the work remained unexecuted in the related time span.</p> <p><b>4.)</b> Slippage exceeding 75% in financial target during the milestone under consideration--10% of the work remained unexecuted in the related time span.</p>	[GCC CL 10.3.2]
	Maximum limit of liquidated damages for delay in completion of work is 10 per cent of the Initial Contract Price rounded off to the nearest thousand.	[GCC Cl. 10.3.2 & 10.3.3 of Article 10)
	Amount of Bonus for early completion of whole of the works as per GCC	[GCC Cl. 17.16 of Article 17]
	The amounts of the advance payment are:	[GCC Cl 17.2 of Article 17]



	Mobilization (Interest bearing) – 10% of the Contract price. On submission of unconditional Bank Guarantee. The contractor shall furnish part 'Bank Guarantee' of 110% of amount of advance Taken as Mobilization.	The mobilization advance shall be released in two equal installments of 5% each.
	Repayment of advance payment for mobilization and equipment: The advance loan shall be repaid with percentage deductions from the interim payments certified by the Engineer under the Contract. Deductions shall commence in the next Interim Payment Certificate following that in which the total of all such payments to the Contractor has reached not less than 20 percent of the Contract Price or 6 (six) months from the date of payment of first installment of advance whichever period concludes earlier, and shall be made at the rate of 20 per cent of the amounts of all Interim Payment Certificates until such time as the loan has been repaid, always provided that the loan shall be completely repaid prior to the expiry of the original time for completion pursuant to Clauses 8.2 and 8.4 (Condition of Contract). In case non-achievement of milestone and accordingly non-production of running bills and consequently non-recovery of mobilization advance, the part Bank Guarantee (BG) against the Mobilization advance to that extent shall be forfeited.	[GCC Cl. 17.2.5 of Article 17]
	The Securities shall be for the following minimum amounts equivalent as a percentage of the Contract Price: Performance Security for 3 percent of contract price plus Rs. (to be decided after evaluation of the bid) as additional security in terms of ITB Clause 29.5.	[Cl. 7.1 of Article 7)
	The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works.	GCC Cl 10.5 of Article 10)

## **VOLUME-II**

### **SECTION 7**

#### **TECHNICAL SPECIFICATION**

**Disclaimer:** The technical specifications provided herein for Modernization of schools as per NBC, IS 456, IS 800, and other relevant IS codes. In the absence of any definite provisions on any particular issue in the aforesaid specifications, reference may be made to the specifications of Government of Bihar/India which provides the specifications of various items of works which may be taken as minimum and any item of lower specifications shall not be allowed.

### **Details of Materials and Specifications:**

**1) Foundation & Plinth:** RCC Column Structure of grade M25 or as per structural design/GFC drawing in PPC/PSC cement and Fe 500 TMT bars conforming to IS 1786:2008

**2) Super Structure:** RCC framed structure all column and beam with concrete of grade M25 or as per structural design/GFC drawing in PPC/PSC cement and reinforcement as per design for Fe 500 TMT bars conforming to IS 1786:2008

**3) Material of roof:** fabricated corrugated roof/ Fabricated steel/ Fabricated fibre glass/ PVC sheet

**4) Chajja** 75mm thick 0.6 m wide in RCC.

**5) Water Proofing:** Water proofing with APP or fiber reinforced elastomeric liquid water proofing membrane with acrylic polymers.

**6) Walls:** A- class brick work in red brick in cement mortar 1:4.

**7) Plaster:** 12mm thick 1:4 inside, 24mm thick 1:4 outside, 6mm thick 1:4 ceiling

### **8) Flooring:**

a. **Rooms:** Vitrified tile flooring over flat brick soling as per design conforming to IS:15622/ISO13006.

b. **Toilets, Laundry, Wash and Kitchen:** Anti-skid floor tiles in Kitchen and Toilets/ baths conforming to IS:15622/ISO13006 on 20 mm thick 1:4 cement mortar.

c. **Foyer, Waiting Hall, Dining hall, Corridor, Medical Shops and Staircase:** 25 mm thick Kota stone laid in 20mm thick 1:4 cement mortar.

### **9) Wall Tile/Dado/Skirting in Kitchen, Toilet and Bath:**

a. **Skirting:** 150mm skirting of same material as flooring,

b. **Dado:** 600mm above kitchen counter, window sill and window side of ceramic glazed tile in 1:3 cement mortar,

c. **Bath/Toilet:** Ceramic glazed tile 2m from floor level for toilets and bath in 12mm thick 1:3 cement mortar.

### **10) Doors:**

#### **a. Frames:**

i. **External Doors frame** as per design in pressed steel door frames made of 1.60mm mild steel sheet conforming to IS 4351.

ii. **Internal Door Frame** in 1 ½ inch/ 35 mm thick wood of Local wood, Subject to change on discretion to Second class Teak wood/ Sal wood/ Seasoned hollock wood/ Local wood.

b. **Door Shutter:** Minimum 25 mm Thick (Internal Doors) and minimum 30mm Thick external Doors (Entry Doors) of first-class hard wood conforming to IS 4616 or IS 2202 subject to final approved design and execution.

c. **Paint:** Two coats of enamel paint over one coat of wood primer of approved shade.

**11) Windows:** Approved make, Aluminium Section with appropriate tubular section or Z section conforming to IS: 733 and IS: 1285 with powder coating of 50 microns, float glass panels of 4.0mm thickness, grill made of MS steel with 20mm X 6mm flat or 10mm square bar with 18kg/sqm minimum as per design, with suitable coating of enamel paint and red oxide zinc chromate primer.

### **12) Painting:**

a. **Interior and ceiling:** Surface smoothened with 2mm thick white wall putty, over it one coat of white cement primer, over it two coats of acrylic emulsion paint of approved shade.

b. **Exterior:** Application of exterior acrylic smooth paint with silicone additives.

### **13) Sanitary ware:**

a. **Water closet:** Vitreous white glazed earthen ware water closet (Indian/ European W.C. Pan) conforming to IS 7231 of approved make with china/Orissa pattern footrest (Indian W.C. pan) with P or S trap, plastic cistern of approved make and capacity.

b. **Urinal:** White vitreous china flatback urinal with standard flushing cistern and spray fittings

c. **Wash Basin:** White Vitreous glazed earthenware wash hand basin of approved make.

d. **Washroom Fittings:** fittings as per approved make of C.P. Brass

**14) Water Supply:** All internal water supply through PVC pipes and UPVC pipes wherever applicable as per design conforming to IS 4985-1978 Series IV.

**List of Approved Makes CIVIL ITEMS:**

<b>Sl. No.</b>	<b>Description of Approved Material</b>	<b>Approved Make</b>
1 (a)	Cement (PPC/PSC)	Ultratech(L&T)/Ambuja/ACC/Konark/Birla Gold/ /JK/ /Lafarge/Emami/Reliance
1 (b)	White Cement	JK White/ Birla White
2	Reinforcement Steel	SAIL/ TISCON(TATA)/ VIZAG (RINL) /JINDAL, ELECTROSTEEL
3	Structural Steel	SAIL/ TISCON(TATA)/ VIZAG (RINL) /JINDAL, ELECTROSTEEL
4.	Glazed Ceramic Tile	KAJARIA / JOHNSON/ SOMANI/ CERA/Orient Bell/Simpolo/RAK
5.	Ceramic Floor Tile	KAJARIA / JOHNSON/ SOMANI/ CERA/Orient Bell/Simpolo/RAK
6.	Vitrified Tile	KAJARIA / JOHNSON/ SOMANI/ CERA/Orient Bell/Simpolo/RAK
8.	Ply Wood, Shuttering Ply Conforming to IS 303-1989 / IS 4990- 1993	M/s. Century Plyboards (I) Ltd. / M/s. Green Ply Industries Ltd.
9.	-	-
10.	Fire Door	Shakti Met-Door, Metaflex
11	Rolling Shutter	Bengal Rolling Shutter, ' Standard', 'Swastik', 'Diana', 'Hercules',
12.	Stainless Steel Section	SAIL/ TATA
13.	Stainless steel hardware for doors	Dorma /Haffelle
14	Glazing	Saint Gobain / Asahi Float Glass Ltd / Hindustan Safety Glass Works Ltd. / Modi.
15.	Injection water proofing, Water Proofing coating, Water Repellents Conc., Admixtures, PVC, Plasticized membranes of water proofing	Sika Qualcrete Ltd./ Structural Waterproofing Co./Pidilite Industries Ltd./ Fosroc/ BASF (The applicator has to be certified by the water proof vendor.
16.	Synthetic Enamel Paints, Distemper, Acrylic Emulsion Paints, Melamine Coating, Aliphatic Acrylate	I.C.I (I) Ltd. / Berger Paints (I) Ltd. / Jenson& Nicholson (I) Ltd. / Asian Paints (I) Ltd. / FOSROC Chemicals(I) Pvt Ltd.
17.	Flush door (Factory made)	M/s. Century Plyboards (I) Ltd. / Green ply / Merino Industries

18.	Aluminium Sections and Extrusion shall conform IS:733-1983 and IS:1285-1975	HINDALCO / JINDAL
19.	General Hardware	
	a. Latches, Hinges etc.	GODREJ / DORMA / HAFFELLE
	b. Locks, Flush Bolt	GODREJ / DORMA / HAFFELLE
	c. Handles	GODREJ / DORMA / HAFFELLE
	d. Screw	Nettlefold / GKW / ND
	e. Door Closure	GODREJ / DORMA / HAFFELLE
	f. Floor Spring	GODREJ / M/s. EVERITE Agencies Pvt. Ltd. / M/s. Garnish
	g. Aldron	ISI Marked
	h. Tower Bolt	ISI Marked
	i. PVC Buffer Block	ISI Marked
	j. Door Stopper	ISI Marked
	k. Patch fittings for toughened glass	Dorma Systems
21.	<b>Kota stone</b> (Bluish grey/Green)	Premium
22.	Waterproof Adhesive for Tile/Slab fixing to wall or floor	Terraco India (P) Ltd. / M/s. Pidilite Industries Ltd. / M/s. Roffe Construction Chemicals Pvt. Ltd.
23.	Sealant	<ul style="list-style-type: none"> <li>• Rhodorsil-33, Pidiseal A-11 &amp; B-11 : M/s. Pidilite</li> <li>• Industries Ltd., Techseal RDL-600, Techseal RDL- 940, Techseal RDL-1000 : M/s. Choksey Chemical</li> <li>• (P) Ltd. Roffseal : M/s. Roffe Construction Chemicals</li> <li>• Pvt. Ltd. or Fosroc ., SikkPolysulphide/ Dr. Fixit</li> <li>• Pidiseal PS (42 P) MYK.</li> </ul>
24.	<b>Tile Jointing Materials</b>	—RainbowTileMate— HDI (M/s. Roffeconstruction Chemicals Pvt. Ltd.). —TerragroutI (M/s. Terraco India (P) Ltd. or Fosroc
25.	Decorative Ply (Teak / Cedar / Mahogany / Walnut Veneer)	M/s. Century Plyboards (I) Ltd. / GREENPLY
26.	Cement Based or Exterior Textured Paint	ICI ( I ) Ltd / Asian Paints / Berger Paint (I) Ltd. / Jenson & Nicholson

27	Glass Mosaic tiles	Shon, Kent ,Bisazza
28	Glass for structural glazing & canopy (Coloured Reflective Toughened Glass)	Saint Gobain / Hindustan Pilkington/ Ashai float glass .
29	Silicone Sealant	GE/Dow Corning
30.	Aluminium composite panel	Aluco bond/Aludecor/ Alstrong
31.	MS Conduit pipe	BEC /SUPREME/ AKG
32.	PVC Conduit pipe	PLAZA/PRECISION/POLYCAB/AKG/ Arkaylite/ Havells, JUVAS
33.	Pre-constructional Anti-termite (Chloropyriphos)	Pest Control India or approved by Engineer-in-charge
34.	Cement Primer	ICI/BERGER/ASIANPAINTS/JENSON & NICHOLSON
35.	Textured Paint	ICI/BERGER/ASIANPAINTS/JENSON & NICHOLSON
36.	Waterproofing acrylic emulsion exterior grade paint	ICI/BERGER/ASIANPAINTS/JENSON & NICHOLSON
37.	Acrylic Polymer waterproofing coat	SIKA/FOSROC/PIDILITE/ROFFE/BASF
38.	Expanding grout admixture	SIKA/FOSROC/PIDILITE/ROFFE/BASF
39.	Integral waterproofing compound	SIKA / FOSROC / PIDILITE / ROFFE
40.	Waterproofing admixture	SIKA / FOSROC / PIDILITE / ROFFE
41.	Plasticizer	SIKA / FOSROC / PIDILITE / ROFFE
42	APP Modified Bituminous membrane	SIKA / FOSROC / PIDILITE / ROFFE
43	Aluminium anodized louver	HUNTER DOUGLAS

44	Structural glazing	JINDAL/HINDALCO .
45	Stainless steel handrail with balluster	GODREJ / DLINE
46	Floor hardener	Ironite/ Feronite

#### WATER SUPPLY, SEWERAGE & DRAINAGE

Sl. No.	Description of Approved Material	Approved Brand / Manufacturer
1.	G.I. Pipes - medium class (As per IS- 1239, P - I )	TATA/JINDAL
2.	G.I. Pipe fittings (as per IS-1239, P - II); of material with Galvanised Cast Iron Fillings, with material code conforming to IS- 1879	HB/ "NB" /"ZOLOTO"/Leader / -"JSI" fittings ISI  approved Heavy
3.	<b>C.P. on brass fittings</b>	
	CP Bib cock	JAQUAR-Continental /CERA /ESSCO -Delux'or _sumthingspecial' / —Marcel—Hindwarell oras  approved by ENGINEER-IN-CHARGE

	CP 'Long Nose' /or' Long Body' Bib cock	- Do -
	CP Angle valve	- Do -
	CP 'Concealed' Stop cock 'Heavy' type with adjustable CP wall Flange	- Do -
	CP Shower Rose	- Do -
4.	Bronze /Gun metal-body—Pressure-	—Zoloto—1040A/Leader—Sant—Neta
	Release valve with threaded screw ends, class (PN-1.0) / or (PN-1.6) class	
5.	Gun metal body Ball Float valve with PVC  (High pressure) Ball Float	Zoloto / Leader / —Sant / —Neta
6.	15 mm dia. PVC Connector pipe with  Symetnuts at both ends.-(for Wash Basin	PRAYAG Gora approved by ENGINEER-IN-CHARGE



	Pillar tap & W.C. & Urinal Cistern	
	connections)	
7.	Wall Outlet Connection Flexible Pipe - 15mm dia	"Jaquar" / —Esscol/ —Hindware
8.	Bronze /Gun metal-body Gate valve with threaded screwed ends, "Non-rising Spindle" type (PN-1.0)/or (PN-1.6) class	—Leader / —Zoloto -for Bronze Sant/ body / —Neta / SBM – —Peglar type
9.	Bronze -body Globe valve with 'BSPT(F), threaded screwed ends, "Non-rising Spindle" type (PN-1.0) (PN-1.6) class	Valves of 'Zoloto', or 'Sant' or as approved by ENGINEER-IN-CHARGE.
10.	CI body Gate /Sluice valve with flanged ends rising Spindle" type (PN- 1.0) / or (PN-1.6) class	—Sant / —Zoloto /Leader / —Hawa
11.	Pump for water supply .	'Wilo' / 'KSB' / —CRI / —Grundfos / DP.pump

12.	CP Urinal Spreader-15mm (for Urinals only)	for all Toilets:- Hindware/"Parryware" or as approved by ENGINEER-IN-CHARGE.
13.	Soil, waste & vent pipes / and Pipe Fittings &Specials :- C.I. Centri cast (as per 15-3989)	'NECO' / 'HEPCO' / 'KAPILANSH DHATU UDYOG' (P) L TD.'
14.	<b>C.P. on brass fittings</b>	JAQUAR/ESSCO_-Delux"/Marc /Hindware /CERA/
15.	C.P. on brass fittings C.P. Waste Coupling, ii) C.P. Bottle Trap, iii) C.P Robe Hook, iv) C.P. Towel Rail. v) CP Two way Bib Tap	JAQUAR/ESSCO_-Delux"/Marc/ Hindware /CERA
16.	CP Toil. Paper Holder	- Do -
17.	CP Towel Ring	- Do -
18	CP Soap Dish Holder	- Do-
19.	CP Bottle Trap with wall connection Pipe	- Do-

20.	Sanitary Fixtures & Fittings	
	CP Robe Hooks	- Do-
	CP "Two-way" Bib cock	- Do-
	CP Shower Rose	- Do-
21.	Rigid PVC (Concealed) Waste pipe, [Schdl.-40], (as per ASTM D 1785)- (concealed or exposed)	Supreme / Oriplast / Finolex/ Utkarsh
22.	Rain Water Pipe Fittings :- 'Sand cast Iron' - "SWR" class, as per (IS: 1792)	DO
23.	'Salem' Stainless Steel Sink as per AISI 304 (18/8) conforming to I.S.- 13983	"Hindware" "Hafele" "Nirali", 'Parryware'
24.	<b>Stone- Ware Pipes</b> , and S.W. Pipe Fittings	Sonali / GINNI / NIRALI / Hind
25.	C. I. Manhole Cover ( I.S. - 1726) - "Medium" or "Heavy" Grade' (Light duty	NECO' / 'HEPCO/ Swastika / 'BPL' / —BICl.

	only on Oil/Grease Trap Chamber)	
26.	<b>NP-2</b> class R.C.C. Pipes and Pipe Fittings  (i.e., RCC Collars etc.)	/ = West Bengal Eastern Spuncrete Concrete  / = HINDUSTAN / Industries(P)Ltd. = SUR / or equivalent ISI approved Make.
27.	Stone- Ware Gully Trap	Sonali / GINNI / NIRALI / Hind / or equivalent ISI approved make.
28.	C.I.Grating-(OverCatchPitYard Gully Chamber), (I.S. - 1726) "Medium" or "Heavy" Grade	NECO' / 'HEPCO' / = BPL' / Kapilansh Dhatu Udyog
29.	<b>Rain Harvesting Pump/Agriculture Pump of required capacity-.</b>	'Willo' / KSB / —CRI / —Grundfos / DP pumps/
30.	"Enclosed" Analogue type WaterMeter  ("Bulk" Type), conforming to IS-2373  with Calibration Certificate, including all necessary accessories.	"Dashmesh" / 'Kaycee" / "Capstan"/ —Kentl.
31.	Bronze body "Parallel Slide" Blow-off valve ("Spring loaded, blow-off pressure sellable" type), with flanged ends, also with	Zoloto' / Sant —make / Leader.

	matching Flanges (PN-1.0) / or (PN- 1.6) class	
32.	<b>Air-Release Valve</b> Bronze body "Parallel Slide" 'Blow-off valve ("Spring loaded, blow-off pressure sellable" type), with flanged ends, also with matching Flanges (PN-1.0) / or (PN-1.6) class	Zoloto <sup>6</sup> / Sant –make / Leader.
	Bronze/Gunmetal-body Ball valve with  "BSPT(F), threaded screwed ends, "quarter  turn Lever operated "type (PN-1)/or (pN-  1.6) class	Valves of Bronze body :- 'Leader', 'Zoloto' – Metal  only:- Sant make / Leader.
33.	Gaskets-CAF 'Full face' conforming to IS-  2712, Gr.- C; (3mm thick)	"Klinger" / "Permanite" / "Champion".
34.	CPVC and uPVC and HDPE pipe including  fittings	Ori-Plast /Suprim/Alom
35.	Pressure Reducing Valve , Blow-off  VALVE : Bronze / Gun metal Body,;  Bronze/Gun metal Body, Non- Return  Valve (N.R.V) : C.I. Body	<b>Zoloto, / "Sant" / —Leader / —Amcol / —Hawal)</b>
36.	(Vitreous Sanitarywares chinaware):-  i) W.C. - (Indian type/ European Type)	<b>Hindware, / —Parryware/ —CERA / KOHLER</b>

	<p>- with 'S' / 'P' - Trap - Floor mounted type, without PVC Flushing Cistern</p> <p>ii) Wash Basins - "Flat-back" type</p> <p>rectangular pattern with —Esscol CP</p> <p>Pillar Tap / or —Swan neck type Mixer</p> <p>iii) Urinal - Flat back "Small" with CP</p> <p>Spreader, CP Waste coupling, CP Bottle Traps with waste pipes.</p>	
37.	Wall Mirror	<p>6mm thick 'Modiguard' / 'Ashai' / or equivalent</p> <p>approved by ENGINEER-IN-CHARGE, with 12mm</p> <p>thick hard-board backing</p>
38.	W.C.:- Floor mounted "Pedestal" type- W.C. -	'Hindware- /'Parryware'/'Cera' :-
39.	Wash Basin	'Hindware- /'Parryware'/'Cera'
40.	<p>For WC flushing :- PVC 'Low-level'</p> <p>"Dual- Flush" Cistern</p>	<p>Hindware' "SLEEK" or equivalent Parryware or 'Cera'</p> <p>Model.</p>

**ELECTRICAL ITEMS:**

Sl.	ITEM	APPROVED MAKES
1	Diesel engine	CUMMINS / CATERPILLAR / KIRLOSKAR
2	Alternator	KIRLOSKAR / STAMFORD / AREVA
3	LT Cable termination materials	DOWELLS / COMET / LOTUS
4	Air Circuit Breaker	SCHNEIDER / ABB / L&T
5	MCCB / Contactor	SCHNEIDER / ABB / L&T
6	MCB Distribution Board	SCHNEIDER / ABB / L&T
7	MCB / RCCB / RCCBO	SCHNEIDER / ABB / L&T
8	Power Factor Correction Relay	SCHNEIDER // L&T/EPCOS
9	Power Factor Correction Capacitors	SCHNEIDER / EPCOS / L&T
10	Relays	SCHNEIDER / SIEMENS / L&T
11	Meters	SCHNEIDER /ENERCON/ AEI
12	Ammeter/Voltmeter selector switch	L&T/ KAYCEE / SALZER
13	Indicating Lamp	SCHNEIDER /SIEMENS/VAISHNO/ L&T
14	Push Buttons / Indicating Lamps	SCHNEIDER /L & T (RISHAB) / SIEMENS
15	CT	KAPPA / AUTOMATIC ELECTRIC / BCH
16	L. T. Power, control and signal cable	HAVELLS / POLYCAB / CRYSTAL
17	Cu. Wires	MESCAB / FINOLEX /HAVELLS
18	M.S.Conduit	JINDAL / TATA / GST
19	PVC conduit & Accessories	ISI Marked
20	Industrial Power Socket Outlets	SCHNEIDER / ABB / L&T

21	Switches and Sockets modular type	LEGRAND / CRABTREE / L&T
22	Lighting Fixture	WIPRO / CG / PHILIPS
23	Wall/ Ceiling / Exhaust Fans	USHA / CROMPTON / HAVELLS
24	Ductable Split Units	LG / PANASONIC / CARRIER
25	Wall Mounted Split Unit	LG / PANASONIC / CARRIER
26	Cable Tray	FABRICATED / LEGRAND
27	EPABX	UNIFY / CISCO / AVAYA
28	RJ 11 SOCKET	LEGRAND/L&T/SCHNEIDER
29	RJ 45 SOCKET	LEGRAND/L&T/SCHNEIDER
30	LAN Cable &Accessories	HAVELLS / POLYCAB / CRYSTAL
31	UPS	ETON/EMERSON
32	CCTV CAMERAS	L&T/SCHNEIDER/ABB
33	PA SYSTEM along with all accessories	BOSCH / HONEYWELL
34	TRANSFORMER	VOLTAMP / SCHNEIDER /
35	HT BREAKER	SCHNEIDER/ABB/L&T
36	HT XLPE CABLE	HAVELLS / POLYCAB / CRYSTAL
37	11 KV RUBBER MAT	ISI MARKED
38	11 KV HAND GLOVES	ISI MARKED
39	ELECTRONIC LIGHTING ARRESTER	PROLITE/
40	Fan	Havells, Crompton, Bajaj



41	LED Lights	Havells, Crompton, Bajaj, Surya
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## FIREFIGHTING MAKES

Sl. No.	Description of Material/Item	Approved Make
1	Relays	Siemens / Schneider / L & T
2	Meters	IMP / Neptune
3	Ammeter/Voltmeter selector switch	Kaycee / Salzer / AE
4	Indicating Lamp	Siemens/ Schneider
5	Wires (copper conductor)	Mescab / Polycab/ Havells/ Nicco / Gloster
6	MCCB	Siemens/ Schneider / L & T
7	CT	Kappa
8	<b>MS-Black Main Pipes-Hydrant ERW (IS-1239) Butt weldable /threaded IS:1239 Part-I (Heavy)</b>	<b>JINDAL / TATA/ Nezone/ _Skipper‘</b>
9	<b>Gate valve(IS:210,GR-210) ,</b>	<b>Crawlie&amp;Ray</b>
10	<b>Butter fly valve in C.S. lever / Wheel</b>	<b>/Leader /Intervale/Sant/ Zoloto/L&amp;T</b>
	<b>operated to be fitted between flanges, PN-1.0 BS-5155</b>	<b>Kirloskar/</b>
11	<b>Foot Valve with Strainer as per IS-4038</b>	<b>Eastern Spuncrete / W.B. Concrete Industries Pvt. Ltd. / Hindustan</b>
12	Sluice / Gate Valve.	
13	N.R.V.	
14	R.C.C. pipes (NP-3	

15	Hydrant Valve IS-5290	Shield Fire /Minimax, Surex –all ISI marked
16	CP fire Hose with G.M. Nozzle.	FireShield/Minimax, Surex – all ISI marked
17	Pressure Gauge	FireShield /Minimax, Surex – all ISI marked
18	Hose Box	FireShield /Minimax, Surex – all ISI marked
19	<b>Fire Extinguishers</b> D.C.P.-5Kg.-including MS fastening Clamps for mounting on walls/columns CO <sub>2</sub> 4.5 Kg.- including MS fastening Clamps for mounting on walls/columns Water CO <sub>2</sub> including MS fastening Clamps for mounting on walls/columns A B C – Powder type	FireShield /Protector/ /Surex /Minimax-all ISI Approved
	(Mono Ammonium Phosphate base) - including MS fastening Clamps for mounting on walls/columns	
20	Pump	Pumps/Kirloskar/KSB/ SAMTURBO BE /WPIL /Grundfos or Equivalent
21	<b>Y<sup>c</sup>-strainer</b>	<b>Kirloskar/Lead er/ Sant /Zoloto</b>
	Pressure Release Valve	<b>Kirloskar/Lead er/ Sant /Zoloto</b>
23	Fire Sprinklers (both pendent & Up-Right type)	<b>=TYCO' / =VIKING' / =Omex'/ —Centrall-ELO 16/ Crawlie&amp; Ray</b>
24	FIRE ALARM PANEL	HONEYWELL-ESSER, Notifire, Simplex. Morley Edward
25	RESPONSE INDICATOR	Approved matching Brand.

26	CABLE	Finolex or equivalent
27	PVC CONDUIT	Ori-Plast or other equivalent
28	FIRE ALARM PANEL	HONEYWELL-ESSER,
29	Smoke Detector	Siemens/Esser/Tyco
30	Heat Detector	Siemens/Esser/Tyco
31	Manual Call Box	ISI Approved Make
32	PC	HP/Dell
33	Pressure Switch	Indfoss ,/ Switzer
34	Lift	OTIS/KONE/JOHNSON

**All material must conform to relevant BIS specifications.**

**The Warranty/Guarantee period for all non civil items (i.e. lights, fixtures, wooden items, all MEP work) will be given by contractor to BSCL for minimum 2 years**

## **VOLUME-III**

### **SECTION 8**

#### **FORM OF BID**

## FORM OF BID

Description of the Works:

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BID

To :

Address :

1.0 We offer to execute the Modernisation of schools under Smart City Mission in Bhagalpur, Bihar described above and remedy any defects therein in conformity with the Conditions of Contract, specification, drawings (Concept layout), Price Bid (Item rate format) and Addenda along with reply to the pre-bid queries.

2.0 We undertake, if our Bid is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the document.

3.0 We agree to abide by this Bid for the period of days from the date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

4.0 Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.

5.0 We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this \_\_\_\_\_ day of \_\_\_\_\_

Signature\_\_\_\_\_in the capacity of\_\_\_\_\_duly authorized to sign

Address

Witness

Address

Occupation

## **SECTION 9**

### **PRICE BID**

## **PRICE BID**

### **Preamble**

- 1.0 The Price Bid shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications and Contract Drawings, Bill of Quantities, Reply to Pre-Bid Queries and Addendum.
- 2.0 The payment will be based upon the actual quantities executed and completed for different items of work as stated in the Bill of Quantities, as measured by the Contractor and checked and verified by the Authority's Engineer and valued at the rates and prices tendered in the Price Bid, within the terms of the Contract.
- 3.0 The Rates of Different Items of Work contained in the Bill of Quantities shall be tendered in the Price Bid shall include supply, construction and operation & maintenance, labour, supervision, materials, erection, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.
- 4.0 The rates or prices shall be quoted entirely in Indian Currency.
- 5.0 The rates of various items of work contained in the Bill of Quantities shall be entered in the price bid which will be taken to have included in the cost of water supply electricity etc.
- 6.0 The rates of different items of work related to the modernisation of schools as mentioned in above para shall be deemed to be inclusive of costs associated with the related Items of Work.
- 7.0 General directions and descriptions of work and materials are not necessarily repeated or summarized in the Price Bid. References to the relevant sections of the contract documentation shall be made before entering rates or price in the Price Bid.
- 8.0 The method of measurement of completed work shall be on the item rate basis for which payment shall be made as indicated in the bid documents.
- 9.0 Errors will be corrected by the Employer for any arithmetic errors pursuant to Clause 29 of the Instructions to Bidders.
- 10.0 Rock is defined as all materials which, in the opinion of the Engineer, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for its removal, and which cannot be extracted by ripping with a tractor of at least 150 kW with a single rear mounted heavy duty ripper.



### **PRICE BID**

I/we hereby tender to execute the whole of the work described in the:

**Name of the Work: - Modernisation of Schools in Bhagalpur under Smart City Mission in Bhagalpur, Bihar on Item Rate Basis.**

## **PRICE BID FORMAT**

## **SECTION 10**

### **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's Representative] (Hereinafter called "the Employer's Representative") in the sum of \* for which payment well and truly to be made to the said Employer's Representative the Bank itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this \_\_\_\_\_ day of .... 2020 THE

CONDITIONS of this obligation are:

1.0 If after Bid opening the Bidder withdraws his bid during the period of Bid validity Specified in the Form of Bid;

OR

2.0 If the Bidder having been notified to the acceptance of his bid by the Employer during the period of Bid Validity:

3.0 fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or

4.0 fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders; or

5.0 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 writtendemand, 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 will remain in force up to and including the date\*\* days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is

hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE

SIGNATURE

\_\_\_\_\_  
\_\_\_\_\_

WITNESS

SEAL

\_\_\_\_\_  
\_\_\_\_\_

---

[Signature, name and address]

- 6.0 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.
- 7.0 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's Representative]

\_\_\_\_\_ [Address of Employer's Representative]

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 Contractor of the Work to be performed thereunder or of any of the Contract documents which may be made between you 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 be valid until 30 days from the date of expiry of the Defect Liability Period.

Signature and Seal of the guarantor

---

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

Address \_\_\_\_\_

Date \_\_\_\_\_

---

\*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**

### **PERFORMANCE BANK GUARANTEE**

To

\_\_\_\_\_ [Name of Employer's Representative]

\_\_\_\_\_ [Address of Employer's Representative]

\_\_\_\_\_ [Name of Contractor]

Gentlemen:

In accordance with the provisions of the Conditions of Contract, sub-clause 14.2 ("Advance Payment") of the above-mentioned Contract, [name and address of Contractor] (herein after called "the Contractor") shall deposit with [name of Employer's Representative] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of \_\_\_\_\_ [amount of Guarantee]\*

[in words].

We the \_\_\_\_\_ [bank of financial institution], as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to [name of Employer's Representative] 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 there under or of any of the Contract documents which may be made between \_\_\_\_\_ [name of Employer's Representative] and the Contractor, shall in any way release us from any liability under this



guarantee, and we hereby waive notice of any such change, addition or modification.

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

Yours truly,

Signature and Seal: \_\_\_\_\_

Name of Bank / Financial Institution: \_\_\_\_\_

Address: \_\_\_\_\_

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

## LETTER OF ACCEPTANCE

(Letter head paper of the Employer's Representative)

Letter No.

Dated

From,

-----

To,

-----

-----

-----

-----

**Subject:** Modernisation of schools in Bhagalpur, Bihar Under Smart City Mission (SCM) on Item Rate Contract – Letter of Acceptance (“LOA”) – Reg.

**Reference:** 1.NIT No.-;

2. -----

3. -----

4.-----

Sir,

This is to notify that your Bid (Bid or tender Reference - ..... ) submitted on ----- (Date) through e-procurement (<https://www.eproc2.bihar.gov.in>) against NIT No.- .....for modernisation of schools at Bhagalpur Under Smart City Mission, at your quoted bid price amounting to Rs. ....../- (Rs. .... ) only has been determined to be lowest evaluated bid and has been accepted by Authority. The conditions of this “LOA” are mentioned below:

1. You are requested to return a duplicate copy of this “LOA” with seal and signature of authorised signatory as an acknowledgement within 7 (seven) days.
2. You are also requested to furnish Performance Security including an additional security for unbalanced bid of Rs. ....../- (Rs. .... ) only within 21 (twenty one) days of receipt of this “LOA”.
3. In case of failure of submission of Performance Security within time as mentioned above, the award shall be deemed to be cancelled and Bid Security shall be encashed by the Authority.

Thanking you.

Your's Sincerely,

Authorized Signature  
Name and title of Signatory  
(Employer's Representative)

## ISSUE OF NOTICE TO PROCEED WITH THE WORK

(Letter head of the Employer's Representative)

(Date) \_\_\_\_\_

To

(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 for the construction of

\_\_\_\_\_ at 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,

(Signature, name and title of  
Employer's Representative)

## AGREEMENT FORM

(On Stamp Paper)

**AGREEMENT NUMBER:** (To be filled by Authority)

**Name of Work:** Modernisation of schools in Bhagalpur, Bihar Under Smart City Mission (SCM) on Item Rate Contract.

This agreement entered into on this the ..... day of .....

### BETWEEN

Bhagalpur Smart City Limited, CIN- U93090BR2016SGC033046, having its registered office at Municipal Corporation, Court Compound, Bhagalpur, Bihar-812001 through Authorised Signatory ----- (hereinafter referred to as the “**Authority**” which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of **One Part;**

### AND

M/s ----- having its registered office at ----- through its authorized signatory ----- (hereinafter referred to as the “**Contractor**” which expression shall, unless repugnant to the context or meaning thereof) of the **Other Part,**

Each of “Authority” and “Contractor” may be referred to individually as a “Party”, and together they may be referred to as the “Parties”.

Whereas the “Authority” entrusted modernisation of schools in Bhagalpur, Bihar Under Smart City Mission (SCM) on Item Rate Contract (“**Project**”) to “Contractor” in accordance with the terms and conditions set forth in this agreement.

The “Authority” accordingly invited Request for Proposals (“RFP”) vide E-Tender NIT No. .... dated ..... from the eligible bidders as per terms and conditions prescribed in the “RFP” for undertaking the “Project”.

The “Authority” issued Letter of Acceptance vide Letter No. .... dated ..... and to M/s ..... for the “Project” at the Contract Price of Rs...../- (Rs. ....) only inclusive of all taxes and GST.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants set forth in this Agreement, the sufficiency and adequacy of which is hereby acknowledged, the “Authority” hereby covenants to pay the “Contractor” in consideration of the obligations specified herein, the Contract Price or such other sum as may become payable under the provisions of the Agreement at the times and in the manner specified in the Agreement and intending to be legally

bound hereby, the Parties agree and accept that the following documents are part of this agreement:

- a) Performance Security in terms of .....
- b) Letter of Acceptance (LOA) with letter No. ....dated .....
- c) Bid document of M/s ..... submitted on website <http://www.eproc2.bihar.gov.in>
- d) NIT No: .....dated;
- e) RFP and Drawings and Bill of Quantities
- f) Any other reference documents mentioned in the RFP.

In the witness whereof the parties there to have caused this Agreement to be executed on the day and year written before.

For and on behalf of  
M/s .....

For and on behalf of  
**Bhagalpur Smart City Limited**

[Authorized Signatory]

[Authorized Signatory]

Seal of M/s .....  
**Witness:**

1.

2.

Seal of Bhagalpur Smart City Limited  
**Witness:**

1.

2.

## UNDERTAKING

I, The undersigned do hereby undertake that our firm M/s \_\_\_\_\_  
agree to abide by this bid for a period \_\_\_\_\_ days for the date fixed for  
receiving the same and it shall be binding on us and may be accepted at any time before the  
expiration of  
that period.

\_\_\_\_\_  
(Signed by an Authorized Officer of the Firm)

Title of Officer

\_\_\_\_\_

Name of Firm

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DATE

## **VOLUME-IV**

### **SECTION 11**

#### **DRAWINGS**

**The detail drawings are available on**

**<https://www.smartcitybhagalpur.org/tenders>**

**VOLUME-V**

**SECTION12**

**DOCUMENTS TO BE**  
**FURNISHED BY BIDDER**





## Bill Of Quantity

### Name of Work:- Modernization of Schools

Bill of Quantity- 1. Mokshda Girl's High School, Bhagalpur			
Sr.No	ITEM OF WORK	Unit	Qty
1	Demolishing cement concrete including disposal of material within 50 metre lead: 1:3:6 or richer mix	cum	3.898
2	Demolishing R.C.C. work including stacking of steel bars and disposal of unserviceable material withing 50 metres lead:	cum	3.898
3	Extra for cutting reinforcement bars in R.C.C. or R.B. work (Payment shall be made on the cross-sectional area of R.C.C. or R.B. work)	per RCC	1
4	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	kg	771.72
5	Demolishing brick work including stacking of serviceable material and disposal of unserviceable material within 50 meters lead: In cement mortar	cum	21.497
6	Removing mortar form bricks and cleaning bricks including stacking within a lead of 50m (stacks of cleaned bricks shall be measured):	cum	21.497
7	Dismantling doors windows and clerestory windows (steel or wood) shutters including chowkhats, architrage, holdfasts etc. complete and stacking within 50 metres lead: Of area beyond 3 sqm	each	6
8	Dismantling roofing including ridges, hips valleys and gutters etc. and stacking the material within 50 metres lead of: G.S. Sheet	sqm	42.688
9	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead. 100 mm dia pipe	m	25
10	Taking out C. I. cover with frame from R.C.C. top slab of manholes of various sizes including demolishing of R.C.C, wo k and stacking of useful materials near the site and disposal of unserviceable materials into municipal dumps within 50 metres lead.	each	4
11	Taking out C.I. cover with frame from R.C.C. top slab of inspection chambers of various sizes including demolishing of R.CC. work and stacking of useful materials near the site and disposal of unserviceable materials into municipal dumps within 50 metres	each	4
12	Dismantling of R.C.C. spun vent shaft including excavating the cement concrete pit completely, taking out the shaft, refilling the excavated gap, stacking the useful materials near the site and disposal of unserviceable materials within 50 metres lead.	each	2

13	Dismantling or road gully chamber or various sizes including C.I. grating with frame including stacking of useful materials near the site and disposal of unserviceable materials into municipal dumps within 50 metres lead including refilling the excavated	each	2
14	Dismantling of flushing cistern of any size including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	each	5
15	Demolishing R.C.C. work by mechanical means and stockpiling at designated locations and disposal of dismantled materials up to a lead of 1 kilometre, stacking serviceable and unserviceable material separately including cutting\ reinforcement bars.	cum	21.497
16	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer- in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	cum	72.286
17	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge. With cement mortar 1:4 (1 cement :4 fine Sand)	sqm	3497.14
18	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50metres lead.	sqm	3497.14
19	Removing mortar form bricks and cleaning bricks including stacking within a lead of 50m (stacks of cleaned bricks shall be measured): From brick work in cement mortar	cum	61.642
20	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with rectangular/ L-Type sections, made of 1.60 mm thick M.S. Sheet, joints mitred, welded and grinded finish, with profiles of required size, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	885.6
21	Dismantling doors windows and clerestory windows (steel or wood) shutters including chowkhats, architrage, holdfasts etc. complete and stacking within 50 metres lead: of area beyond 3 sqm	each	13

22	Dismantling doors windows and clerestory windows (steel or wood) shutters including chowkhats, architrage, holdfasts etc. complete and stacking within 50 metres lead: Of area 3 sqm and below	each	54
23	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).	cum	0.548
24	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	each	104
25	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in- Charge. (Door chowkhats)	each	13
26	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	31.2
27	Diluting and injecting chemical emulsion for POSTCONSTRUCTIONAL anti-termites' treatment (including the cost of chemical emulsion) Treatment at points of contact of wood work by chemical emulsion chlordane. (in oil or kerosene-based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	metre	628.7
28	Providing 40X5mm flat iron hold fast 40cm long including fixing to frame with 10 mm dia. Bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15 cm 1:3:6 mix(1 cement: 3 coarse sand : 6 graded stone 20mm nominal size)	each	702
29	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 250x10 mm	each	41

30	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 150x10 mm	each	41
31	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 100x10 mm	each	41
32	Providing and fixing bright finished brass door latch with necessary screws etc. complete 300X16X5 mm	each	117
33	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete 300x16 mm	each	117
34	Providing and fixing, 30 mm thick factory-made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless-steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm ( $\pm 0.2$ mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	11.02
35	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19-gauge, EPDM rubber gasket weather seal to be provided throughout the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in- Charge.	meter	34.65

36	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / aneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, panelling and dash fasteners to be paid for separately) : Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	109.2
37	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / aneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, panelling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	85.64
38	Providing and fixing glazing in aluminium door, windows, ventilators, shutters and partitions etc, with EPDM rubber/neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge (cost of aluminium snap beading shall be paid in basic item) With float glass panes of 4.0 mm thickness.	sqm	39.435
39	Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	m	8
40	Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete. Wheel 50 mm dia and below	each	16

41	Diluting and injecting chemical emulsion for POST CONSTRUCTIONAL anti-termites' treatment (including the cost of chemical emulsion) Along external wall where the apron is not provided using chemical emulsion @ 7.5 litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete: With chlorpyriphos/Lindone E.C. 20% with 1% concentration	metre	312.115
42	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement: 3 coarse sand (zone - III) : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	237.824
43	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	6352.8
44	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1cement:3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately.	sqm	1477.482
45	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete. Base with 1:1:1 (1 lime: 1 surkhi: 1 coarse sand ) / 1:4 (1 cement: 4 coarse sand) 20 to 25 mm thick -	sqm	1517.614
46	Providing and applying white cement-based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	6352.88

47	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. Two coats	sqm	6352.88
48	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	sqm	4486.736
49	Finishing walls with Acrylic Smooth exterior paint of required shade: New work (Two or more coat applied @ 1.67 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	1866.027
50	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.75 ltr/ 10 sqm of approved brand and manufacture.	sqm	363.36
51	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade: Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	sqm	369.6
52	Installation of Acrylic Sheet based LED Board in aluminium frame with LED lighting and sheet design as per drawing on MS L section in concrete (1:2:4), including lighting, fixtures, connection all complete	sqm	18
53	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	0.9
54	Earth work in excavation in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m . including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil.	cum	23.0102208
55	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth: consolidating each deposited layer by ramming and watering lead	cum	15.3401472



56	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering-all work up to plinth level. 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	cum	4.268
57	Centring and shuttering including strutting, propping etc. and removal of form for. Foundations, footings, bases of columns etc. for mass concrete.	sqm	34.019024
58	Diluting and injecting chemical emulsion for POSTCONSTRUCTION anti-termites' treatment(including the cost of chemical emulsion) Along external wall where the apron is not provided using chemical emulsion @ 7.5 liters / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete: With chlorpyrifos/Lindone E.C. 20% with 1% concentration	metre	30.40608
59	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand(zone-III) : 4 graded stone aggregate 20mm nominal size).	sqm	12.0886344
60	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg. per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	sqm	12.0886344
61	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone - III) : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	14.722944
62	Centering and shuttering including strutting, propping etc. and removal of form for : Columns, pillars, piers, Abutments, Posts, Struts	sqm	30.053088
63	Centering and shuttering including strutting, propping etc. and removal of form for : Suspended floors, roofs, landings, balconies and access platform	sqm	58.471704
64	Centering and shuttering including strutting, propping etc. and removal of form for : Shelves (Cast in situ)	sqm	4.6575
65	Centering and shuttering including strutting, propping etc. and removal of form for : Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	9.363

66	Centering and shuttering including strutting, propping etc. and removal of form for: Beams, girders, cantilevers, suspended floors, lintels, roofs and staircases including spiral staircase and shelves etc.	cum	8.8082064
67	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars TMTC-500-8mm dia.	kg	556.7709443
68	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars TMTC-500-10mm dia.	kg	649.5661017
69	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars TMTC-500-12mm dia.	kg	649.5661017
70	Brick work with bricks of class designation 100A in foundations and plinth in :cement mortar 1:4 (1 cement:4 coarse sand)	cum	23.3486064
71	Brick work 7cm thick with brick of class designation 100A cement mortar 1:3 ( 1 cement : 3 coarse sand ) in super structure	sqm	43.840944
72	Extra for tile bricks masonry with tile bricks of class designation 100A in superstructure from plinth level upto floor five level.	cum	26.285
73	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations, of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.	sqm	5.382
74	Providing edge moulding to 18 mm thick marble stone counters, vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work	meter	13.716
75	Extra for providing opening of required size & shape for wash basins/kitchen sink in kitchen platform. Vanity counters and similar location in marble/granite/stone work including necessary holes for pillar taps etc. including rubbing, moulding and polishing of cut edges etc. complete.	each	8

76	Providing and fixing ISI marked flush door shutters conforming to IS :2202 (Part I) non-decorative type, core of block board construction with frame of 1 st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	2.318
77	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Second class teak wood	cum	0.019
78	Providing 40X5mm flat iron hold fast 40cm long including fixing to frame with 10 mm dia. Bolts, nuts and wooden plugs and embedding in cement oncrete block 30x10x15 cm 1:3:6 mix(1 cement: 3 coarse sand : 6 graded stone 20mm nominal size)	each	54
79	Area of window above 1.75 sqm) Providing and fixing factory made uPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of uPVC multichambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads and uPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealent shall be paid separately) Note: For uPVC frame and sash extruded profiles minus 5% tolerance in dimension i.e. in depth & width of Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of 1.9 ± 0.2 mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm).	sqm	2.88

80	Providing and fixing glazing in aluminium door, windows, ventilators, shutters and partitions etc, with EPDM rubber/neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge (cost of aluminium snap beading shall be paid in basic item) With float glass panes of 4.0 mm thickness.	sqm	2.88
81	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 250x10 mm	each	9
82	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 150x10 mm	each	9
83	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 100x10 mm	each	9
84	Providing and fixing bright finished brass door latch with necessary screws etc. complete 300X16X5 mm	each	1
85	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete 300x16 mm	each	1
86	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S including cost of adhesive of approved quality: 1.0 mm thick	sqm	4.637
87	30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm ( $\pm 0.2$ mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having overall thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	12.6

88	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in- Charge.	meter	39.6
89	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes,channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, ( for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts,fasteners etc.).	kg	11.52
90	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of ist quality conforming to IS : 15622 of approved make in colours such shades except white, Ivory, Grey, Fume Red, Brown, laid on 20 mm thick Cement motar 1:4 (1 cement: 4 coarse sand ) including pointing the joints with white cement and matching pigment etc., complete.	sqm	43.841
91	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (Thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy , bottle green , black of any size as approved by Engineer-in-charge in skirting , risers of steps and dados over 12 mm thick bed of cement Mortar 1:3(1 cement: 3 coarse sand ) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	147.796
92	Providing 12 mm cement plaster 1:3( 1 cement: 3coarse sand)	sqm	36.949
93	Providing 15 mm cement plaster 1:3 (1 cement: 3 coarse sand )	sqm	92.018
94	Providing 6 mm cement plaster of mix: 1:3 (1 cement : 3 fine sand)	sqm	43.841

95	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	172.808
96	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre, of approved brand and manufacture,including applying additional coats wherever required, to achieve even shade and colour.	sqm	172.808
97	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	sqm	80.79
98	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	92.018
99	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.75 ltr/ 10 sqm of approved brand and manufacture.	sqm	2.962
100	Providing and laying in sssitu five course water proofing treatment with glass fibre tissue reinforced bitumen over roof consisting of first coat of bitumen primer @ 0.40 kg. per sqm, 2nd & 4th courses of bonding material@ 1.60 kg. per sqm which shall consist of blown type bitumen of grade 85/25 conforming to IS: 702, third layer of glass fibre tissue course as specified, fifth, the top most layer of stone grit 6 mm and down size or pea-sized gravel sprad @ 6 dmJ per sqm including preparation of surface excluding grading for slope etc. complete.	sqm	43.841
101	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :W.C. pan with ISI marked white solid plastic seat and lid.	each	6

102	Providing and fixing wash basins with C.P. brass pillar tap, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls and floors where required. White Vitreous china Wash basin of size 630 x 450mm with single 15mm C.P brass pillar tap.	each	4
103	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	4
104	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	each	4
105	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore	each	8
106	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 15 mm nominal outer dia pipes	metre	40
107	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 20 mm nominal outer dia pipes	metre	30

108	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 25 mm nominal outer dia pipes	metre	30
109	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 32 mm nominal outer dia pipes	metre	25
110	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete : 25 to 40 mm nominal bore	metre	40
111	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 15 mm nominal bore.	each	2
112	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 20 mm nominal bore.	each	2
113	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 25 mm nominal bore	each	2
114	Providing and fixing unplasticised PVC connection pipe with brass unions : 30 cm length 15 mm nominal bore	each	18
115	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Flexible pipe 40 mm dia	each	9



116	Providing and placing on terrace (at all floor levels) polyethylene <b>water storage tank</b> ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fitting and base support for tank.	per litre	1000
117	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931	each	10
118	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 15 mm nominal bore.	each	10
119	Providing and fixing C.P brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 15 mm nominal bore	each	10
120	Providing and fixing PTMT Grating of approved quality and colour Circular Type 125 mm nominal dia with 25 mm waste hole	each	9
121	Providing, laying and jointing glazed stone ware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc complete. 200 mm diameter	metre	160
122	Providing and laying cement concrete 1 : 5 : 10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) upto haunches of S.W. Pipes including bed concrete as per standard design. 200 mm diameter	metre	160
123	Providing and fixing square mouth S. W. Gully trap grade 'A' complete with C.I. grating brick masonry chamber with F.P.S bricks and water tight CI cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design 150 x 100 mm. size P type With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	15
124	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc complete 250 mm diameter R.C.C pipes :	metre	160

125	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with With common burnt clay F.P.S. (non modular) bricks of class designation 7.5h a floating coat of neat cement complete as per standard design :Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :	each	6
126	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with With common burnt clay F.P.S. (non modular) bricks of class designation 7.5h a floating coat of neat cement complete as per standard design Extra for depth for manholes Size 90x80 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
127	Making khurra 45x45cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20mm nominal size) over PVC sheet 1mx1mx400 micron, finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete :	Each	90
128	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion.Coupler 110mm	Each	80

129	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion. Single T with door 110x110x110 mm	Each	90
130	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansionBend 87.5° 110 mm bend	Each	90
131	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete. 110mm	Each	480
132	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil.	cum	7.2
133	Centring and shuttering including strutting, propping etc. and removal of form for. Suspended floors, roofs, landings, balconies and access platform	sqm	12
134	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).All works upto plinth level	cum	1.5
135	Brick work with bricks of class designation 100A in foundations and plinth in :Cement mortar 1 :4 (1 cement: 4 coarse sand )	cum	4.5

136	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge 100 mm nominal size dia	M	30
137	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	7.2
138	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	7.2
139	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	7.2
140	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 4.5 kg carbon dioxide extinguisher, IS marked, with high pressure discharge tube, horn, control valve, CCE approved cylinder	each	7
141	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 6 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	each	7
142	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit with modular switch , modular plate, suitable size G.I. box etc as required. Group C	point	186
143	Wiring for twin control light point with 1.5 sq. mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box etc as required.	point	186
144	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	metre	180

145	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 6 sq. mm + 1 X 6 sq. mm earth wire	metre	80
146	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 10 sq. mm + 1 X 10 sq. mm earth wire	metre	80
147	Supplying and drawing following sizes of PVC insulated aluminium conductor, single core cable in the existing surface/ recessed PVC conduit as required. 6 x 2.5 sq. mm	metre	120
148	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	metre	1000
149	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	each	380
150	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection, painting etc. as required.	each	380
151	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	each	6
152	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required Telephone socket outlet	each	4
153	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required TV antenna outlet	each	3

154	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required Bell push	each	2
155	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 1 or 2 Module (75mmX75mm)	each	60
156	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 4 Module (125mmX75mm)	each	10
157	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 6 Module (200mmX75mm)	each	127
158	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 8 Module (125mmX125mm)	each	150
159	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required.1 or 2 Module	each	24
160	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 4 Module (125mmX75mm)	each	10
161	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 6 Module (200mmX75mm)	each	26
162	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 8 Module (125mmX125mm)	each	22
163	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed PVC conduit as required.	metre	100
164	Supplying and fixing stepped type electronic fan regulator on the existing modular plate/ switch box including connections but excluding modular plate etc. as required.	each	41

165	Supplying and fixing brass batten/ angle holder including connection etc. as required.	each	128
166	Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required	each	2
167	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required..	each	41
168	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Upto 450 mm sweep	each	15
169	Extra for fixing the louvers shutters complete with frame for a exhaust fan of all sizes	each	15
170	Supplying and fixing of following ways surface/ recessmounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	each	6
171	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	each	6
172	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	each	6
173	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. 6/32 amps, Single pole	each	48
174	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required	each	80

175	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	set	1
176	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ termination with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping with 2 sets of brass nut bolt and & spring washer spaced at 50 mm)	metre	20
177	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	metre	14
178	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe 2.7 metre long etc. with charcoal/ coke and salt as required.	set	1
179	Supplying and laying 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, including connection with brass nut, bolt, spring, washer excavation and refilling etc. as required.	metre	20
180	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	metre	28
181	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	metre	28
182	4 Metre height Octagonal Hot-Dip galvanized street light poles with top dia. (A/F) 70 mm & bottom dia (A/F) 130 mm and made of 3 mm thick sheet, base plate dimension 220 X 220 X 12 mm including suitable size foundation bolts etc. (with 18% GST included)	each	24
183	3 core, 185 sq. mm , 11 KV grade, armoured power H.T. cable , XLPE insulated with PVC sheathed & aluminium conductor (with 18% GST included)	metre	275
184	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.Upto 120 sq. mm	metre	225
185	Fixing for laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.Upto 35 sq. mm (Clamped with 1 mm thick saddle)	each	24



186	Providing and fixing lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	each	1
187	Fixing of lightning conductor finial (single prong) with base plate including holes etc. complete as required.	each	1
188	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	each	12
189	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	metre	6
190	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	metre	6
191	LED lamp 10/12 W	each	132
192	12"(300mm) metal exhaust fan of approved make	each	16
193	Recess mounting Ceiling light LED 12 watt bulb rose(GI Metal Box), 200mmX250mmX60mm deep	each	5
194	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	cum	120
195	Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete (earth measured in stacks will be reduced by 20% for payment).	cum.	100
196	Supplying and stacking sludge at site including royalty and carriage upto 5 km complete (sludge measured in stacks will be reduced by 8% for payment).	cum.	120
197	Supplying and stacking at site dump manure from approved source, including carriage upto 5 km complete (manure measured in stacks will be reduced by 8% for payment) : 2.4.3 Screened through sieve of I.S. designation 4.75 mm	cum.	80
198	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	sqm	380

199	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/or good earth to be paid separately).	cum	200
200	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	cum	120
201	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally finishing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	cum	75
202	Providing and stacking of Fishtail palm of ht. 270-300 cm bottom girth 40-50 cm well developed in big size HDPE bags as per direction of the officer-in-charge.	each	24
203	Supply and stacking of Delonix regia (Gulmohar) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge	each	6
204	Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhurmos) and then rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establish properly, as per direction of officer-in-charge.	sqm	500
205	Providing and displaying of Brassia Variegated having ht. 30 cm, well developed with fresh and healthy foliage in 20 cm size of Earthen pot/ Plastic pot & as per direction of the officer-in-charge.	each	45
206	Providing and displaying of Croton Petra Bangalore variety having ht. 60 cm to 75 cm with 4 to 6 branches, well developed, fresh and healthy colorful leaves in 25 cm size of Earthen pot/Plastic pot & as per direction of the officer-in-charge.	each	45

207	Providing and Displaying Bougainvillea named variety, Sobhra, Thima, Marry palmar, Cherry Blossom etc. well developed with fresh & healthy bushy in full bloom 75 to 90 cm ht. in 40 cm Cement Pot as per direction of the officer-in-charge.	each	35
208	Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, hedge, flower beds, foliages, creepers etc. including hoeing,weeding pruning replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mover and brush cutter , removal of garden waste, applying insecticide, pesticide & fertilizers(whenever required) top dressing of lawn with good earth and menure and maintenance of other garden related works as directed by office-in-charge (Cost of Good Earth, Manure, Fertilizer, Insecticide , Pesticide will be provided by the Department & lawn mover and brush cutter with fuel , other T & P material/articles shall be provided by the contractor.) -2.40.6 Open spaces(as per yard stick 1Mali =3.00Acre).	per sqm per year	650
209	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with jamuna sand and cutting of paver blocks as per required size and pattern,finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc.complete as per manufacturer's specifications & direction of Engineer-in-Charge. <b>60mm thick C.C.paver block of M-35 grade with approved colour, design &amp; pattern.</b>	sqm	760.31
210	Edging with bricks laid dry length wise including excavation,refilling, consolidating with hand packing and spreading neatly surplus earth within a lead of 50 m: 100A class designation.F.P.S.Bricks	m	781
211	6.5 MP ,HD Bullet Camera,6 mm PoE, 1080P@25/30fps, WDR, NIR, BLC, Dual ICR, 30m IR, IP66, ousing,6mm Lens	each	24
212	16CH 720P,HD NVR,4 HDD 16ch 1080P/720P IP Camera Input, 16ch Realtime Display; 8ch 720P/4ch 1080P Sync Playback, Incoming: 128Mbps; Outgoing : 64Mbps HDMI, VGA Output, 4 SATA(Up to 16TB)	each	1

213	POE 16 Port POE Switches 100/1000	each	2
214	Cat 6 Cat 6 Cable(Bundle of 300 Meter)	each	4
215	Connector RJ 45 Connector(Complete Box)	each	1
216	Hard Disk Surveillance Hard Disk 4TB	each	2
217	Supply ,Instalaltion Testing and commissiong of 55 " LED 16x7 with Full HD resolution APPROVED MAKE: LG/SAMSUNG	each	1
218	DESKTOP HP All-in-One 22-df0142in Windows 10 Home Single Language 64 8 GB DDR4-3200 SDRAM (1 x 8 GB) 1 TB 7200 rpm SATA Intel® UHD Graphics 5.7 kg	each	20
219	5KVA ONLINE UPS WITH BATTERIES FOR 30 MIN BACK UP APPROVED MAKE:APC/CONSUL NEOWATT	each	2
220	Providing & fixing of white board in place all complete of Size 8' X 4'	each	16
221	Supplying and Installing of 3 seater desk & table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete.	each	200
222	Providing & fixing of Notice board in place all complete of Size 8' X 4'	each	6
223	Waiting hall SS Chairs (3 seating capacity)	each	3
224	Supplying of Revolving chair all complete of Godrej or durian make all complete	each	40
225	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -4' X 3'	each	16
226	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -12' X 5'	each	2
227	`Supplying & Installing of Boss table of size 7' X 3' X 2'-6" and boss chair all complete	set	1

228	Pack of 12 Size A3 Laminated Water Resistant Covid-19 Coronavirus Safety Prevention Posters for School Wall Self Adhesive Posters 17"x12"	each	16
229	Paper Plane Design Kid's Educational Set of 10 Multicolour A3 Poster Unframed Thick Paper with Tape (12 x 18 Inch)	each	16
<b>Bill Of Quantity- 2. Rajkiya Intermediate Zila School, Bhagalpur</b>			
<b>Sr.No</b>	<b>ITEM OF WORK</b>	<b>Unit</b>	<b>Qty</b>
230	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge. With cement mortar 1:4 (1 cement :4 fine Sand)	sqm	6882.43
231	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50metres lead.	sqm	6882.43
232	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	each	108
233	Diluting and injecting chemical emulsion for POSTCONSTRUCTION antitermites' treatment(including the cost of chemical emulsion) Treatment at points of contact of wood work by chemical emulsion chlordane. (in oil or kerosene based solution)@ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	metre	607
234	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete:250x10 mm	each	98
235	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete:150x10 mm	each	57
236	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete:100x10 mm	each	10
237	Providing and fixing bright finished brass door latch with necessary screws etc. complete 300X16X5 mm	each	98
238	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete 300x16 mm	each	98

239	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately).Second class teak wood	cum	0.749
240	Renewing glass panes, with wooden fillets wherever necessary:Float glass panes of thickness 4 mm	sqm	34.2
241	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S.pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge.Kiln seasoned and chemically treated hollock wood.35 mm thick	sqm	82.08
242	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type,core of block board construction with frame of 1 st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	25.92
243	Providing & Fixing 40X5mm flat iron hold fast 40cm long including fixing to frame with 10 mm dia. Bolts, nuts and wooden plugs and embedding in cement oncrete block 30x10x15 cm 1:3:6 mix(1 cement: 3 coarse sand : 6 graded stone 20mm nominal size)	each	410
244	Providing & Fixing 30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm ( $\pm 0.2$ mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	15.75

245	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in- Charge.	meter	49.5
246	Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	m	10
247	Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete. Wheel 50 mm dia and below	each	20
248	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone - III) : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	440.123
249	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	13877.105
250	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1cement:3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately .	sqm	2112.174

251	Kota stone slab flooring over 20 mm (average ) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete . Base with 1:1:1 (1 lime : 1 surkhi: 1 coarse sand ) / 1:4 (1 cement: 4 coarse sand) 20 to 25 mm thick -	sqm	65.587
252	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sqm	1811.736
253	Cement concrete flooring 1:2:4(1 cement:2 coarse:sand:4 graded stone agregate) finished with a floating coat of neat cement including cement slurry, etc. but excluding the cost of nosing of steps etc. complete.40 mm thick with 20 mm nominal size stone aggregate	sqm	2104.719
254	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	13877.443
255	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre, of approved brand and manufacture,including applying additional coats wherever required, to achieve even shade and colour.Two coats	sqm	13877.443
256	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work	sqm	8111.192
257	Finishing walls with Acrylic Smooth exterior paint of required shade :New work (Two or more coat applied @ 1.67 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	5766.251
258	Painting wood work with Deluxe Multi Surface Paint of requiredshade. Two or more coat applied @ 0.90 ltr/ 10 sqm over anunder coat of primer applied @ 0.75 ltr/ 10 sqm of approvedbrand and manufacture.	sqm	412.56
259	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade: Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	sqm	702.56
260	Brick work with bricks of class designation 100A in foundations and plinth in :Cement mortar 1 :.4 (1 cement: 4 coarse sand )	cum	164.7



261	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge. With cement mortar 1:4 (1 cement :4 fine Sand)	sqm	1317.6
262	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	4392
263	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	4392
264	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour. Two coats	sqm	4392
265	Finishing walls with Acrylic Smooth exterior paint of required shade :New work (Two or more coat applied @ 1.67 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	4392
266	Installation of Acrylic Sheet based LED Board in aluminium frame with LED lighting and sheet design as per drawing on MS L section in concrete (1:2:4), including lighting, fixtures, connection all complete	sqm	18
267	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	0.9
268	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :W.C. pan with ISI marked white solid	each	10

	plastic seat and lid.		
269	Providing and fixing wash basins with C.P. brass pillar tap, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls and floors where required. White Vitreous china Wash basin of size 630 x 450mm with single 15mm C.P brass pillar tap.	each	10
270	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	10
271	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	each	10
272	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore	each	20
273	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 15 mm nominal outer dia pipes	metre	40
274	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 20 mm nominal outer dia pipes	metre	30

275	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 25 mm nominal outer dia pipes	metre	30
276	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 32 mm nominal outer dia pipes	metre	25
277	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :EXTERNAL WORKS 25 to 40 mm nominal bore	metre	40
278	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 15 mm nominal bore.	each	2
279	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 20 mm nominal bore.	each	2
280	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 25 mm nominal bore	each	2
281	Providing and fixing unplasticised PVC connection pipe with brass unions :30 cm length 15 mm nominal bore	each	18
282	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Flexible pipe 40 mm dia	each	9
283	Providing and placing on terrace (at all floor levels) polyethylene <b>water storage tank</b> ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fitting and base support for tank.	per litre	4000
284	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931	each	20

285	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 15 mm nominal bore.	each	20
286	Providing and fixing C.P brass angle valve for basin mixer and geyser points of approved quality confirming to IS:8931 15 mm nominal bore	each	20
287	Providing and fixing PTMT Grating of approved quality and colour Circular Type 125 mm nominal dia with 25 mm waste hole	each	10
288	Providing, laying and jointing glazed stone ware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1cement :1 fine sand) including testing of joints etc complete.200 mm diameter	metre	80
289	Providing and laying cement concrete 1 : 5 : 10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) upto haunches of S.W. Pipes including bed concrete as per standard design.200 mm diameter	metre	80
290	Providing and fixing square mouth S. W. Gully trap grade 'A' complete with C.I. grating brick masonry chamber with F.P.S bricks and water tight CI cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design 150 x 100 mm. size P typeWith common burnt clay F.P.S. (non modular) bricks of class	each	9
291	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc complete : 250 mm diameter R.C.C pipes	metre	80

292	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
293	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :Extra for depth for manholes Size 90x80 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
294	Making khurra 45x45cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20mm nominal size) over PVC sheet 1mx1mx400 micron, finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete :	Each	80
295	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion.Coupler 110mm	Each	80

296	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion Single T with door 110x110x110 mm	Each	80
297	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion Bend 87.5° 110 mm bend	Each	80
298	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.110mm	Each	480
299	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil.	cum	7.2
300	Centring and shuttering including strutting,propping etc. and removal of form for.Suspended floors, roofs, landings, balconies and access platform	sqm	12
301	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).All works upto plinth level	cum	1.5
302	Brick work with bricks of class designation 100A in foundations and plinth in :Cement mortar 1 :4 (1 cement: 4 coarse sand )	cum	4.5

303	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge 100 mm nominal size dia	m	30
304	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	7.2
305	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	7.2
306	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	7.2
307	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 4.5 kg carbon dioxide extinguisher, IS marked, with high pressure discharge tube, horn, control valve, CCE approved cylinder	Nos.	7
308	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 6 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	Nos.	7
309	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit with modular switch ,modular plate, suitable size G.I. box etc as required. Group C	point	335
310	Wiring for twin control light point with 1.5 sq. mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box etc as required.	point	335
311	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	metre	180

312	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 6 sq. mm + 1 X 6 sq. mm earth wire	metre	80
313	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 10 sq. mm + 1 X 10 sq. mm earth wire	metre	80
314	Supplying and drawing following sizes of PVC insulated aluminium conductor, single core cable in the existing surface/ recessed PVC conduit as required. 6 x 2.5 sq. mm	metre	120
315	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	metre	1000
316	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	each	779
317	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection, painting etc. as required.	each	779
318	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	each	6
319	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required Telephone socket outlet	each	4
320	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required TV antenna outlet	each	3
321	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required Bell push	each	2



322	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 1 or 2 Module (75mmX75mm)	each	30
323	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 4 Module (125mmX75mm)	each	10
324	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 6 Module (200mmX75mm)	each	60
325	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 8 Module (125mmX125mm)	each	75
326	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 or 2 Module	each	8
327	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 4 Module (125mmX75mm)	each	4
328	6Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. Module (200mmX75mm)	each	12
329	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 8 Module (125mmX125mm)	each	11
330	Supplying and drawing co-axial TV cable RG-6 grade,0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protectedwith PVC sheath in the existing surface/ recessed PVCconduit as required.	metre	100
331	Supplying and fixing stepped type electronic fan regulator on the existing modular plate/ switch box including connections but excluding modular plate etc. as required.	each	102
332	Supplying and fixing brass batten/ angle holder including connection etc. as required.	each	221

333	Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required	each	2
334	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required..	each	102
335	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Upto 450 mm sweep	each	10
336	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Extra for fixing the louvers shutters complete with frame for a exhaust fan of all sizes	each	10
337	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	each	4
338	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.63 amps	each	4
339	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	each	4
340	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.6/32 amps, Single pole	each	38
341	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required	each	80

342	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	each	1
343	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ termination with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping with 2 sets of brass nut bolt and & spring washer spaced at 50 mm)	metre	20
344	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	metre	14
345	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe 2.7 metre long etc. with charcoal/ coke and salt as required.	set	1
346	Supplying and laying 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, including connection with brass nut, bolt, spring, washer excavation and refilling etc. as required.	metre	16
347	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	metre	20
348	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	metre	15
349	3 core, 185 sq. mm , 11 KV grade, armoured power H.T. cable , XLPE insulated with PVC sheathed & aluminium conductor (with 18% GST included)	metre	70
350	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required. Upto 120 sq.mm	metre	50
351	Fixing for laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.Upto 35 sq. mm (Clamped with 1 mm thick saddle)	each	50

352	Providing and fixing lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	each	1
353	Fixing of lightning conductor finial (single prong) with base plate including holes etc. complete as required.	each	1
354	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	each	12
355	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	metre	6
356	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	metre	6
357	LED lamp 10/12 W	each	221
358	12"(300mm) metal exhaust fan of approved make	each	10
359	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	cum	115
360	Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete (earth measured in stacks will be reduced by 20% for payment).	cum.	90
361	Supplying and stacking sludge at site including royalty and carriage upto 5 km complete (sludge measured in stacks will be reduced by 8% for payment).	cum.	115
362	Supplying and stacking at site dump manure from approved source, including carriage upto 5 km complete (manure measured in stacks will be reduced by 8% for payment) : 2.4.3 Screened through sieve of I.S. designation 4.75 mm	cum.	70
363	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	sqm	280
364	Spreading of sludge, dump manure and/or good earth in required thicknesses as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	cum	115

365	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	cum	115
366	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	cum	75
367	Providing and stacking of Fishtail palm of ht. 270-300 cm bottom girth 40-50 cm well developed in big size HDPE bags as per direction of the officer-in-charge.	each	24
368	Supply and stacking of Delonix regia (Gulmohar) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge	each	6
369	Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhurmos) and then rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establish properly, as per direction of officer-in-charge.	sqm	300
370	Providing and displaying of Brassia Variegated having ht. 30 cm, well developed with fresh and healthy foliage in 20 cm size of Earthen pot/ Plastic pot & as per direction of the officer-in-charge.	each	25
371	Providing and displaying of Croton Petra Bangalore variety having ht. 60 cm to 75 cm with 4 to 6 branches, well developed, fresh and healthy colorful leaves in 25 cm size of Earthen pot/Plastic pot & as per direction of the officer-in-charge.	each	25

372	Providing and Displaying Bougainvillea named variety, Sobhra, Thima, Marrypalmar, Cherry Blossom etc. well developed with fresh & healthy bushy in full bloom 75 to 90 cm ht. in 40 cm Cement Pot as per direction of the officer-in-charge.	each	15
373	Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, hedge, flower beds, foliages, creepers etc. including hoeing, weeding, pruning, replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mover and brush cutter, removal of garden waste, applying insecticide, pesticide & fertilizers (whenever required) top dressing of lawn with good earth and manure and maintenance of other garden related works as directed by office-in-charge (Cost of Good Earth, Manure, Fertilizer, Insecticide, Pesticide will be provided by the Department & lawn mover and brush cutter with fuel, other T & P material/articles shall be provided by the contractor.) -2.40.6 Open spaces (as per yard stick 1 Mali = 3.00 Acre).	per sqm per year	450
374	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with jamuna sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc. complete as per manufacturer's specifications & direction of Engineer-in-Charge. <b>60mm thick C.C. paver block of M-35 grade with approved colour, design &amp; pattern.</b>	sqm	760.31
375	Edging with bricks laid dry length wise including excavation, refilling, consolidating with hand packing and spreading neatly surplus earth within a lead of 50 m: 100A class designation. F.P.S. Bricks	m	781
376	6.5 MP, HD Bullet Camera, 6 mm PoE, 1080P@25/30fps, WDR, NIR, BLC, Dual ICR, 30m IR, IP66, housing, 6mm Lens	each	32

377	16CH 720P,HD NVR,4 HDD16ch 1080P/720P IP Camera Input, 16ch Realtime Display; 8ch 720P/4ch 1080P Sync Playback, Incoming: 128Mbps; Outgoing : 64MbpsHDMI, VGA Output, 4 SATA(Up to 16TB)	each	1
378	POE 16 Port POE Switches 100/1000	each	2
379	Cat 6 Cat 6 Cable(Bundle of 300 Meter)	each	4
380	Connector RJ 45 Connector(Complete Box)	each	1
381	Hard Disk Surveillance Hard Disk 4TB	each	2
382	Supply ,Instalaltion Testing and commissioning of 55 " LED 16x7 with Full HD resolution APPROVED MAKE: LG/SAMSUNG	each	2
383	DESKTOP HP All-in-One 22-df0142in Windows 10 Home Single Language 64 8 GB DDR4-3200 SDRAM (1 x 8 GB) 1 TB 7200 rpm SATA Intel® UHD Graphics 5.7 kg	each	20
384	5KVA ONLINE UPS WITH BATTERIES FOR 30 MIN BACK UP APPROVED MAKE: APC/CONSUL NEOWATT	each	2
385	Providing & fixing of white board in place all complete of Size 8' X 4'	each	26
386	Supplying and Installing of 3 seater desk & table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete.	each	250
387	Providing & fixing of Notice board in place all complete of Size 8' X 4'	each	4
388	Waiting hall SS Chairs (3 seating capacity)	each	3
389	Supplying of Revolving chair all complete of Godrej or durian make all complete	each	42
390	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -4' X 3'	each	26
391	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -12' X 5'	each	2

392	`Supplying & Installing of Godrej make Boss table of size 7' X 3' X 2'-6" and boss chair all complete	set	1
393	Pack of 12 Size A3 Laminated Water Resistant Covid-19 Coronavirus Safety Prevention Posters for School Wall Self Adhesive Posters 17"x12"	each	26
394	Paper Plane Design Kid's Educational Set of 10 Multicolour A3 Poster Unframed Thick Paper with Tape (12 x 18 Inch)	each	26
<b>Bill Of Quantity- 3. Rajkiya Balika Inter Vidyalaya, Bhagalpur</b>			
<b>S.No</b>	<b>ITEM OF WORK</b>	<b>Unit</b>	<b>Qty</b>
395	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge. With cement mortar 1:4 (1 cement :4 fine Sand)	sqm	5084.6
396	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50metres lead.	sqm	5084.6
397	Demolishing R.C.C. work including stacking of steel bars and disposal of unserviceable material withing 50 metres lead:	cum	6.822
398	Providing corrugated G.S. sheet roofing fixed with G.I.J. or hooks, bolts and nuts 8 mm diameter with bitumen and G. I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on over lapping of sheets complete (upto a pitch of 60°) excluding the cost or purlins, rafters and trusses.	sqm	40.692
399	Demolishing R.C.C. work including stacking of steel bars and disposal of unserviceable material withing 50 metres lead:	cum	20.736
400	Removing mortar form bricks and cleaning bricks including stacking within a lead of 50m (stacks of cleaned bricks shall be measured):From brick work in cement mortar	cum	37.067



401	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with rectangular/ L-Type sections, made of 1.60 mm thick M.S. Sheet, joints mitred, welded and grinded finish, with profiles of required size, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	kg	1706.4
402	Desmantiling doors windows and clerestory windows (steel or wood) shutters including chowkhats, architrage, holdfasts etc. complete and stacking within 50 metres lead: of area beyond 3 sqm	each	17
403	Desmantiling doors windows and clerestory windows (steel or wood) shutters including chowkhats, architrage, holdfasts etc. complete and stacking within 50 metres lead: Of area 3 sqm and below	each	134
404	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately).Second class teak wood	each	0.807
405	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in- Charge. (Door chowkhats)	each	19
406	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type,core of block board construction with frame of 1 st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	sqm	50.4
407	Diluting and injecting chemical emulsion for POSTCONSTRUCTION antitermites' treatment(including the cost of chemical emulsion) Treatment at points of contact ot wood work by chemical emulsion chlordane. (in oil or kerosene based solution)@ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	metre	394

408	Providing 40X5mm flat iron hold fast 40cm long including fixing to frame with 10 mm dia. Bolts, nuts and wooden plugs and embedding in cement oncrete block 30x10x15 cm 1:3:6 mix(1 cement: 3 coarse sand : 6 graded stone 20mm nominal size)	each	560
409	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 250x10 mm	each	56
410	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete:150x10 mm	each	56
411	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete:100x10 mm	each	56
412	Providing and fixing bright finished brass door latch with necessary screws etc. complete 300X16X5 mm	each	56
413	Providing and fixing ISI marked oxidised M.S. sliding door bolts withnuts and screws etc. Complete 300x16 mm	each	56
414	Providing & Fixing 30mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm ( $\pm 0.2$ mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	44.1

415	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm,made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in- Charge.	meter	138.6
416	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / aneling,C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	181.68

417	<p>Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / aneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows &amp; ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)</p> <p>Powder coated aluminium (minimum thickness of powder coating 50 micron)</p>	kg	286.96
418	<p>Providing and fixing glazing in aluminium door, windows, ventilators, shutters and partitions etc, with EPDM rubber/neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge (cost of aluminium snap beading shall be paid in basic item)</p> <p>With float glass panes of 4.0 mm thickness.</p>	sqm	125.73
419	<p>Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.</p>	each	77
420	<p>Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:</p> <p>Float glass panes of thickness 5.5 mm</p>	sqm	33.44
421	<p>Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.</p>	m	10
422	<p>Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete.</p> <p>Wheel 50 mm dia and below</p>	each	20

423	Diluting and injecting chemical emulsion for POST CONSTRUCTIONAL anti-termites' treatment (including the cost of chemical emulsion) Along external wall where the apron is not provided using chemical emulsion @ 7.5 liters / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete: With chlorpyrifos/Lindane E.C. 20% with 1% concentration	metre	187.757
424	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone - III) : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	sqm	143.066
425	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	8490.503
426	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1 cement: 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately.	sqm	2628.513
427	laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such shades except white, Ivory, Grey, Fume Red, Brown, laid on 20 mm thick Cement mortar 1:4 (1 cement: 4 coarse sand) including pointing the joints with white cement and matching pigment etc., complete.	sqm	136.191

428	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (Thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy , bottle green , black of any size as approved by Engineer-in-charge in skirting , risers of steps and dados over 12 mm thick bed of cement Motar 1:3(1 cement: 3 coarse sand ) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	228.906
429	Kota stone slab flooring over 20 mm (average ) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete . Base with 1:1:1 (1 lime : 1 surkhi: 1 coarse sand ) / 1:4 (1 cement: 4 coarse sand) 20 to 25 mm thick -	sqm	65.587
430	Providing and fixing 10 mm thick acid and / or alkali resistant tiles of approved make and colour using acid and / or alkali resisting mortar bedding, and joints filled with acid and / or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-Charge.In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand). Acid and alkali resistant tile.	sqm	50.35
431	Cement concrete flooring 1:2:4(1 cement:2 coarse:sand:4 graded stone agregate) finished with a floating coat of neat cement including cement slurry, etc. but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	sqm	2628.546
432	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	8602.007
433	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre, of approved brand and manufacture,including applying additional coats wherever required, to achieve even shade and colour.Two coats	sqm	8602.007
434	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	sqm	7353.407
435	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	1248.6

436	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.75 ltr/ 10 sqm of approved brand and manufacture.	sqm	278.4
437	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade: Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	sqm	448.44
438	Installation of Acrylic Sheet based LED Board in aluminium frame with LED lighting and sheet design as per drawing on MS L section in concrete (1:2:4), including lighting, fixtures, connection all complete	sqm	18
439	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :Flamed finish granite stone slab Jet Black, Cherry Red, EliteBrown, Cat Eye or equivalent.	sqm	0.9
440	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :W.C. pan with ISI marked white solid plastic seat and lid.	each	8
441	Providing and fixing wash basins with C.P. brass pillar tap, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls and floors where required. White Vitreous china Wash basin of size 630 x 450mm with single 15mm C.P brass pillar tap.	each	8

442	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	8
443	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	each	8
444	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore	each	16
445	Boring/drilling bore well of required dia for casing / strainer pipe, by suitable method prescribed in IS:2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer - in-charge, upto 90 metre depth below ground level. All type of soil 300 mm dia	metre	90
446	Boring/drilling bore well of required dia for casing / strainer pipe, by suitable method prescribed in IS:2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer - in-charge, beyond 90 metre & upto 150 metre depth below ground level. All type of soil 300 mm dia	metre	60
447	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/ plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer- in-charge. 200 mm nominal size dia having minimum wall thickness 5.40 mm	metre	50
448	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer- in -charge.	metre	50



449	Development of tube well in accordance with IS:2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in- Charge.	Hour	36
450	Providing and fixing suitable size threaded mild steel cap or spot as per requirement, all complete for borewell of 200 mm nominal size dia	each	2
451	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete 200 mm nominal size dia	each	2
452	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :1:2:4(1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size) mix for sanitary sealing of well at top (approx. 5m from top).	cum	1
453	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 15 mm nominal outer dia pipes	metre	40
454	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making	metre	30

	good the walls 20 mm nominal outer dia pipes		
455	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 25 mm nominal outer dia pipes	metre	30
456	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 30 mm nominal outer dia pipes	metre	25
457	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete : 25 to 40 mm nominal bore	metre	40
458	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 15 mm nominal bore.	each	2
459	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 20 mm nominal bore.	each	2
460	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 25 mm nominal bore.	each	2
461	Providing and fixing unplasticised PVC connection pipe with brass unions : 30 cm length 15 mm nominal bore	each	18
462	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Flexible pipe 40 mm dia	each	9

463	Providing and placing on terrace (at all floor levels) polyethylene <b>water storage tank</b> ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fitting and base support for tank.	per litre	4000
464	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931	each	16
465	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 15 mm nominal bore.	each	16
466	Providing and fixing C.P brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 15 mm nominal bore	each	16
467	Providing and fixing PTMT Grating of approved quality and colour Circular Type 125 mm nominal dia with 25 mm waste hole	each	10
468	Providing, laying and jointing glazed stone ware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc complete. 200 mm diameter	metre	80
469	Providing and laying cement concrete 1 : 5 : 10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) upto haunches of S.W. Pipes including bed concrete as per standard design. 200 mm diameter	metre	80
470	Providing and fixing square mouth S. W. Gully trap grade 'A' complete with C.I. grating brick masonry chamber with F.P.S bricks and water tight CI cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design 150 x 100 mm. size P type With common burnt clay F.P.S. (non modular) bricks of class	each	9
471	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc complete 250 mm diameter R.C.C pipes :	metre	80

472	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
473	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :Extra for depth for manholes Size 90x80 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
474	Making khurra 45x45cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20mm nominal size) over PVC sheet 1mx1mx400 micron, finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete :	Each	80
475	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion. Coupler 110mm	Each	80

476	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion. Single T with door 110x110x110 mm	Each	80
477	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion. Bend 87.5° 110 mm bend	Each	80
478	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete. 110mm	Each	480
479	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil.	cum	84
480	Centring and shuttering including strutting,propping etc. and removal of form for. Suspended floors, roofs, landings, balconies and access platform	sqm	28
481	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately). All works upto plinth level	cum	3.5

482	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars TMTC-500-8mm dia.	kg	262.5
483	Brick work with bricks of class designation 100A in foundations and in plinth : cement mortar 1:4 (1 cement: 4 coarse sand)	cum	21.7
484	Half brick masonry with bricks of class designation 100B in foundations and in plinth : Cement mortar 1:3 (1 cement: 3 coarse sand)	sqm	28
485	Providing and laying in position cement concrete of specified grade <b>excluding the cost of centering and shuttering</b> - All work up to plinth level : 1:1:2 (1 cement: 1 coarse sand: 2 graded stone aggregate 20 mm nominal size)	cum	2.8
486	Providing 20 mm external plaster work (coarse Sand) 1: 4 (1 cement: 4 coarse sand)	sqm	38.4
487	Making bell mouth opening/ entrance of size 100x50x50 cm for drainage pipe under footpath, including providing cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) for shape of bell mouth, including plastering providing and fixing precast R.C.C./ S.F.R.C. slab including plastering with cement mortar 1:3 (1 cement : 3 fine sand) of 6 mm thickness on exposed surface of the slab & bell mouth including centring, shuttering & neat cement punning inside the bell mouth etc. all complete.	each	6
488	Supplying and fixing C.I. cover without frame for manholes : 500mm diameter c.i cover (medium duty) the weight of the cover to be not less than 58 kg	each	4
489	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	cum	7.2
490	Centring and shuttering including strutting, propping etc. and removal of form for. Suspended floors, roofs, landings, balconies and access platform	sqm	12

491	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately). All works upto plinth level	cum	1.5
492	Brick work with bricks of class designation 100A in foundations and plinth in : Cement mortar 1 :4 (1 cement: 4 coarse sand )	cum	4.5
493	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge 100 mm nominal size dia	m	30
494	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	m <sup>3</sup>	7.2
495	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	m <sup>3</sup>	7.2
496	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer for all leads & lifts, all complete as per direction of Engineer-in-charge.	m <sup>3</sup>	7.2
497	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 4.5 kg carbon dioxide extinguisher, IS marked, with high pressure discharge tube, horn, control valve, CCE approved cylinder	Nos.	10
498	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 6 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	Nos.	10

499	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit with modular switch , modular plate, suitable size G.I. box etc as required. Group C	point	425
500	Wiring for twin control light point with 1.5 sq. mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box etc as required.	point	425
501	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	metre	180
502	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 6 sq. mm + 1 X 6 sq. mm earth wire	metre	80
503	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 10 sq. mm + 1 X 10 sq. mm earth wire	metre	80
504	Supplying and drawing following sizes of PVC insulated aluminium conductor, single core cable in the existing surface/ recessed PVC conduit as required. 6 x 2.5 sq. mm	metre	120
505	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	metre	1000
506	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	each	1164
507	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection, painting etc. as required.	each	1164



508	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	each	6
509	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required Telephone socket outlet	each	4
510	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required TV antenna outlet	each	3
511	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required Bell push	each	2
512	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 1 or 2 Module (75mmX75mm)	each	30
513	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 4 Module (125mmX75mm)	each	10
514	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 6 Module (200mmX75mm)	each	60
515	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 8 Module (125mmX125mm)	each	75
516	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 or 2 Module	each	24
517	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 4 Module (125mmX75mm)	each	10

518	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 6 Module (200mmX75mm)	each	26
519	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 8 Module (125mmX125mm)	each	22
520	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed PVC conduit as required.	metre	100
521	Supplying and fixing brass batten/ angle holder including connection etc. as required.	each	419
522	Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required	each	2
523	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Upto 450 mm sweep	each	4
524	Extra for fixing the louvers shutters complete with frame for a exhaust fan of all sizes	each	4
525	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	each	6
526	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps	each	6
527	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	each	6

528	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. 6/32 amps, Single pole	each	48
529	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required	each	80
530	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	set	1
531	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ termination with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping with 2 sets of brass nut bolt and & spring washer spaced at 50 mm)	metre	20
532	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	metre	14
533	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe 2.7 B41metre long etc. with charcoal/ coke and salt as required.	set	1
534	Supplying and laying 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, including connection with brass nut, bolt, spring, washer excavation and refilling etc. as required.	metre	16
535	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	metre	20
536	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	metre	25
537	4 Metre height Octagonal Hot-Dip galvanized street light poles with top dia. (A/F) 70 mm & bottom dia (A/F) 130 mm and made of 3 mm thick sheet, base plate dimension 220 X 220 X 12 mm including suitable size foundation bolts etc. (with 18% GST included)	each	4
538	3 core, 185 sq. mm , 11 KV grade, armoured power H.T. cable , XLPE insulated with PVC sheathed & aluminium conductor (with 18% GST included)	metre	60

539	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.Upto 120 sq. Mm	metre	50
540	Fixing for laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required. Upto 35 sq. mm (Clamped with 1 mm thick saddle)	each	4
541	Providing and fixing lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	each	1
542	Fixing of lightning conductor finial (single prong) with base plate including holes etc. complete as required.	each	1
543	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	each	12
544	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	metre	6
545	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	metre	6
546	LED lamp 10/12 W	each	419
547	12"(300mm) metal exhaust fan of approved make	each	4
548	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	cum	130
549	Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete (earth measured in stacks will be reduced by 20% for payment).	cum.	110
550	Supplying and stacking sludge at site including royalty and carriage upto 5 km complete (sludge measured in stacks will be reduced by 8% for payment).	cum.	130
551	Supplying and stacking at site dump manure from approved source,including carriage upto 5 km complete (manure measured in stacks will be reduced by 8% for payment) : 2.4.3 Screened through sieve of I.S. designation 4.75 mm	cum.	90

552	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	sqm	850
553	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/or good earth to be paid separately).	cum	240
554	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	cum	240
555	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally finishing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	cum	130
556	Providing and stacking of Fishtail palm of ht. 270-300 cm bottom girth 40-50 cm well developed in big size HDPE bags as per direction of the officer-in-charge.	each	15
557	Supply and stacking of Delonix regia (Gulmohar) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge	each	15
558	Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhurmos) and then rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establish properly, as per direction of officer-in-charge.	sqm	850
559	Providing and displaying of Brassia Variegated having ht. 30 cm, well developed with fresh and healthy foliage in 20 cm size of Earthen pot/ Plastic pot & as per direction of the officer-in-charge.	each	30

560	Providing and displaying of Croton Petra Bangalore variety having ht. 60cm to 75 cm with 4 to 6 branches, well developed, fresh and healthy colorfullleaves in 25 cm size of Earthen pot/Plastic pot & as per direction of theofficer-in-charge.	each	30
561	Providing and Displaying Bougainvillea named variety, Sobhra, Thima, Marry palmar, Cherry Blossom etc. well developed with fresh & healthy bushy in full bloom 75 to 90 cm ht. in 40 cm Cement Pot as per direction of the officer-in-charge.	each	15
562	Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, hedge, flower beds, foliages, creepers etc. including hoeing,weeding pruning replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mover and brush cutter , removal of garden waste, applying insecticide, pesticide & fertilizers(whenever required) top dressing of lawn with good earth and menure and maintenance of other garden related works as directed by office-in-charge (Cost of Good Earth, Manure, Fertilizer, Insecticide , Pesticide will be provided by the Department & lawn mover and brush cutter with fuel , other T & P material/articles shall be provided by the contractor.) -2.40.6 Open spaces(as per yard stick 1Mali =3.00Acre).	per sqm per year	850
563	Edging with bricks laid dry length wise including excavation, refilling, consolidating with hand packing and spreading neatly susrplus earth within a lead of 50 m: 100A class designation. F.P.S.Bricks	m	850
564	6.5 MP ,HD Bullet Camera,6 mm PoE, 1080P@25/30fps, WDR, NIR, BLC, Dual ICR, 30m IR, IP66, ousing,6mm Lens	each	28
565	16CH 720P,HD NVR,4 HDD 16ch 1080P/720P IP Camera Input, 16ch Realtime Display; 8ch 720P/4ch 1080P Sync Playback, Incoming: 128Mbps; Outgoing : 64Mbps HDMI, VGA Output, 4 SATA(Up to 16TB)	each	1
566	POE 16 Port POE Switches 100/1000	each	2

567	Cat Cat 6 Cable(Bundle of 300 Meter)	6	each	4
568	ConnectorRJ 45 Connector(Complete Box)		each	1
569	Hard Surveillance Hard Disk 4TB	Disk	each	2
570	Supply ,Instalaltion Testing and commissioning of 55 " LED 16x7 with Full HD resolution APPROVED MAKE: LG/SAMSUNG		each	2
571	DESKTOP HP All-in-One 22-df0142in Windows 10 Home Single Language 64 8 GB DDR4-3200 SDRAM (1 x 8 GB) 1 TB 7200 rpm SATA Intel® UHD Graphics 5.7 kg		each	20
572	5KVA ONLINE UPS WITH BATTERIES FOR 30 MIN BACK UP APPROVED MAKE: APC/CONSUL NEOWATT		each	2
573	Providing & fixing of white board in place all complete of Size 8' X 4'		each	21
574	Supplying and Installing of 3 seater desk & table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete.		each	250
575	Providing & fixing of Notice board in place all complete of Size 8' X 4'		each	4
576	Waiting hall SS Chairs (3 seating capacity)		each	3
577	Supplying of Revolving chair all complete of Godrej or durian make all complete		each	32
578	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -4' X 3'		each	21
579	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -12' X 5'		each	2
580	`Supplying & Installing of Boss table of size 7' X 3' X 2'-6" and boss chair all complete		set	1
581	Pack of 12 Size A3 Laminated Water Resistant Covid-19 Coronavirus Safety Prevention Posters for School Wall Self Adhesive Posters 17"x12"		each	21
582	Paper Plane Design Kid's Educational Set of 10 Multicolour A3 Poster Unframed Thick Paper with Tape (12 x 18 Inch)		each	21
<b>Bill Of Quantity- 4. Jhun Jhun Wala Adarsh Balika Uchh Vidyalaya, Bhagalpur</b>				
<b>S.No</b>	<b>ITEM OF WORK</b>		<b>Unit</b>	<b>Qty</b>

583	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge. With cement mortar 1:4 (1 cement :4 fine Sand)	sqm	3402.76
584	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50metres lead.	sqm	3402.76
585	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	each	81
586	Diluting and injecting chemical emulsion for POSTCONSTRUCTION antitermites' treatment(including the cost of chemical emulsion) Treatment at points of contact of wood work by chemical emulsion chlordane. (in oil or kerosene based solution)@ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	metre	494
587	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 250x10 mm	each	24
588	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 150x10 mm	each	24
589	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 100x10 mm	each	24
590	Providing and fixing bright finished brass door latch with necessary screws etc. complete 300X16X5 mm	each	24
591	Providing and fixing ISI marked oxidised M.S. sliding door bolts and screws etc. complete with 300x16 mm	each	24



592	Providing & fixing 30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm ( $\pm 0.2$ mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	22.05
593	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm,made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in- Charge.	meter	69.3
594	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty: Float glass panes of thickness 5.5 mm	sqm	32.329
595	Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	m	10
596	Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete. Wheel 50 mm dia and below	each	30
597	Providing and fixing factory made 18 mm thick single extruded WPC (Wood Polymer Composite) solid plain white colour board Jali, CNC (Computer numeric control) routed of approved design by Engineer-in -charge which are machine cut for duct/shaft covering, partitions and facades comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (woodpowder/ rice husk/wheat husk) and non toxic additives(maximum toxicity index of 12 for 100 gms)	sqm	14.864

	having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) minimum compressive strength 50 N/mm <sup>2</sup> , modulus of elasticity 850 N/mm <sup>2</sup> and resistance to spread of flame of Class A category with properties of being termite/borer proof, water/moisture proof and fire retardant and fixing on M.S (mild steel) frame made of 25 x 251.5 mm square hollow box section including applying a priming coat of approved steel primer, placed at grid made at 1.0x 1.0 m or as per requirement at site with necessary stainless steel fasteners and SS screws etc., all complete as per direction of Engineer-In-Charge. (Note: M.S (mild steel) framework with priming coat and necessary SS fasteners and SS screws shall be paid separately.		
598	Diluting and injecting chemical emulsion for POSTCONSTRUCTION anti-termites' treatment (including the cost of chemical emulsion) Along external wall where the apron is not provided using chemical emulsion @ 7.5 liters / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete: With chlorpyrifos/Lindane E.C. 20% with 1% concentration	metre	393.802
599	Demolishing R.C.C. work including stacking of steel bars and disposal of unserviceable material within 50 metres lead:	cum	6.822
600	Providing corrugated G.S. sheet roofing fixed with G.I.J. or hooks, bolts and nuts 8 mm diameter with bitumen and G. I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on over lapping of sheets complete (upto a pitch of 60°) excluding the cost of purlins, rafters and trusses. 1.00 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	sqm	40.692
601	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.	each	20
602	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	7907.184

603	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1cement:3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately .	sqm	1439.114
604	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations, of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. GRANITE Area of slab over 0.50 sqm	sqm	3.643
605	Providing edge moulding to 18 mm thick marble stone counters, vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work	meter	12.07
606	laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of ist quality conforming to IS : 15622 of approved make in colours such shades except white , Ivory , Grey , Fume Red , Brown , laid on 20 mm thick Cement motar 1:4 (1 cement: 4 coarse sand ) including pointing the joints with white cement and matching pigment etc., complete.	sqm	66.263

607	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (Thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy , bottle green , black of any size as approved by Engineer-in-charge in skirting , risers of steps and dados over 12 mm thick bed of cement Motar 1:3(1 cement: 3 coarse sand ) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	144.256
608	Kota stone slab flooring over 20 mm (average ) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete . Base with 1:1:1 (1 lime : 1 surkhi: 1 coarse sand ) / 1:4 (1 cement: 4 coarse sand) 20 to 25 mm thick -	sqm	21.705
609	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	Sqm	1439.226
610	Cement concrete flooring 1:2:4(1 cement:2 coarse:sand:4 graded stone agregate) finished with a floating coat of neat cement including cement slurry, etc. but excluding the cost of nosing of steps etc. complete 40 mm thick with 20 mm nominal size stone aggregate.	sqm	1439.226
611	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	3402.76
612	Distempering with 1st quality acrylic distemper, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre, of approved brand and manufacture,including applying additional coats wherever required, to achieve even shade and colour. Two coats	sqm	3402.76
613	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	sqm	2179.254
614	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	713.184
615	Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.75 ltr/ 10 sqm of approved brand and manufacture.	sqm	394.56

616	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade:Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete.On steel work	sqm	273.6
617	Installation of Acrylic Sheet based LED Board in aluminium frame with LED lighting and sheet design as per drawing on MS L section in concrete (1:2:4), including lighting, fixtures, connection all complete	sqm	10
618	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge : Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	sqm	0.9
619	Centring and shuttering including strutting,propping etc. and removal of form for. Suspended floors, roofs, landings, balconies and access platform	sqm	8.361
620	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).	cum	11.25
621	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars TMTC-500-8mm dia.	kg	843.75

622	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :W.C. pan with ISI marked white solid plastic seat and lid.	each	5
623	Providing and fixing wash basins with C.P. brass pillar tap, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls and floors where required. White Vitreous china Wash basin of size 630 x 450mm with single 15mm C.P brass pillar tap.	each	6
624	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	6
625	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	each	6
626	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore	each	12
627	Boring/drilling bore well of required dia for casing / strainer pipe, by suitable method prescribed in IS:2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer - in-charge, upto 90 metre depth below ground level. All type of soil 300 mm dia	metre	90

628	Boring/drilling bore well of required dia for casing / strainer pipe, by suitable method prescribed in IS:2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer - in-charge, beyond 90 metre & upto 150 metre depth below ground level. All type of soil 300 mm dia	metre	60
629	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/ plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer- in-charge. 200 mm nominal size dia having minimum wall thickness 5.40 mm	metre	50
630	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer- in -charge.	metre	50
631	Development of tube well in accordance with IS:2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in- Charge.	Hour	36
632	Providing and fixing suitable size threaded mild steel cap or spot as per requirement, all complete for borewell of 200 mm nominal size dia	each	2

633	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete 200 mm nominal size dia	each	2
634	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :1:2:4(1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size) mix for sanitary sealing of well at top (approx. 5m from top).	cum	1
635	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 15 mm nominal outer dia pipes	metre	40
636	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 20 mm nominal outer dia pipes	metre	30
637	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 25 mm nominal outer dia pipes	metre	30



638	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 32 mm nominal outer dia pipes	metre	25
639	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete : 25 to 40 mm nominal bore	metre	40
640	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 15 mm nominal bore.	each	2
641	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 20 mm nominal bore.	each	2
642	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 25 mm nominal bore	each	2
643	Providing and fixing unplasticised PVC connection pipe with brass unions : 30 cm length 15 mm nominal bore	each	18
644	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Flexible pipe 40 mm dia	each	9
645	Providing and placing on terrace (at all floor levels) polyethylene <b>water storage tank</b> ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fitting and base support for tank.	per litre	2000
646	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931	each	11
647	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 15 mm nominal bore.	each	11

648	Providing and fixing C.P brass angle valve for basin mixer and geyser points of approved quality confirming to IS:8931 15 mm nominal bore	each	11
649	Providing and fixing PTMT Grating of approved quality and colour Circular Type 125 mm nominal dia with 25 mm waste hole	each	10
650	Providing, laying and jointing glazed stone ware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc complete. 200 mm diameter	metre	80
651	Providing and laying cement concrete 1 : 5 : 10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) upto haunches of S.W. Pipes including bed concrete as per standard design. 200 mm diameter	metre	80
652	Providing and fixing square mouth S. W. Gully trap grade 'A' complete with C.I. grating brick masonry chamber with F.P.S bricks and water tight CI cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design 150 x 100 mm. size P type With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	9
653	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc complete: 250 mm diameter R.C.C pipes	metre	90

654	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
655	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design : Extra for depth for manholes Size 90x80 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
656	Making khurra 45x45cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20mm nominal size) over PVC sheet 1mx1mx400 micron, finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete	Each	90

657	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion Coupler 110mm	Each	80
658	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion Single T with door 110x110x110 mm	Each	90
659	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion Bend 87.5° 110 mm bend	Each	90
660	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete. 110mm	Each	480
661	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	cum	7.2
662	Centring and shuttering including strutting,propping etc. and removal of form for. Suspended floors, roofs, landings, balconies and access platform	sqm	12
663	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per	cum	1.5

	IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately).All works upto plinth level		
664	Brick work with bricks of class designation 100A in foundations and plinth in :Cement mortar 1 :4 (1 cement: 4 coarse sand )	cum	4.5
665	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge 100 mm nominal size dia	M	30
666	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	m <sup>3</sup>	7.2
667	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	m <sup>3</sup>	7.2
668	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer for all leads & lifts, all complete as per direction of Engineer -in- charge.	m <sup>3</sup>	7.2
669	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 4.5 kg carbon dioxide extinguisher, IS marked, with high pressure discharge tube, horn, control valve, CCE approved cylinder	Nos.	5
670	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 6 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	Nos.	5
671	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit with modular switch ,modular plate, suitable size G.I. box etc as required.Group C	point	268

672	Wiring for twin control light point with 1.5 sq. mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box etc as required.	point	268
673	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	metre	180
674	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 6 sq. mm + 1 X 6 sq. mm earth wire	metre	80
675	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 10 sq. mm + 1 X 10 sq. mm earth wire	metre	80
676	Supplying and drawing following sizes of PVC insulated aluminium conductor, single core cable in the existing surface/ recessed PVC conduit as required. 6 x 2.5 sq. mm	metre	120
677	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	metre	1000
678	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	each	1050
679	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection, painting etc. as required.	each	450
680	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	each	6

681	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required Telephone socket outlet	each	4
682	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required TV antenna outlet	each	3
683	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required Bell push	each	2
684	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 1 or 2 Module (75mmX75mm)	each	30
685	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 4 Module (125mmX75mm)	each	10
686	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 6 Module (200mmX75mm)	each	60
687	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 8 Module (125mmX125mm)	each	75
688	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 or 2 Module	each	24
689	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 4 Module (125mmX75mm)	each	10
690	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 6 Module (200mmX75mm)	each	26

691	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 8 Module (125mmX125mm)	each	22
692	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed PVC conduit as required.	metre	100
693	Supplying and fixing stepped type electronic fan regulator on the existing modular plate/ switch box including connections but excluding modular plate etc. as required.	each	54
694	Supplying and fixing brass batten/ angle holder including connection etc. as required.	each	209
695	Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required	each	2
696	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required..	each	54
697	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Upto 450 mm sweep	each	3
698	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Extra for fixing the louvers shutters complete with frame for a exhaust fan of all sizes	each	3
699	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	each	6
700	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	each	6



701	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	each	6
702	Supplying and fixing following rating, 240/415 volts,"C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. 6/32 amps, Single pole	each	48
703	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required	each	80
704	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	set	1
705	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode,including connection/ termination with nut, bolt,spring, washer etc. as required. (Jointing shall be done by overlapping with 2 sets of brass nut bolt and & spring washer spaced at 50 mm)	metre	20
706	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	metre	14
707	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe 2.7 metre long etc.with charcoal/ coke and salt as required.	set	1
708	Supplying and laying 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, including connection with brass nut, bolt, spring, washer excavation and refilling etc. as required.	metre	16
709	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	metre	20
710	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	metre	28
711	4 Metre height Octagonal Hot-Dip galvanized street light poles with top dia. (A/F) 70 mm & bottom dia (A/F) 130 mm and made of 3 mm thick sheet, base plate dimension 220 X 220 X 12 mm including suitable size foundation bolts etc. (with 18% GST included)	each	4

712	3 core, 185 sq. mm , 11 KV grade, armoured power H.T. cable , XLPE insulated with PVC sheathed & aluminium conductor (with 18% GST included)	metre	75
713	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required. Upto 120 sq. mm	metre	60
714	Fixing for laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required. Upto 35 sq. mm (Clamped with 1 mm thick saddle)	each	4
715	Providing and fixing lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	each	1
716	Fixing of lightning conductor finial (single prong) with base plate including holes etc. complete as required.	each	1
717	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	each	12
718	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	metre	6
719	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	metre	6
720	Regular make 1200mm Sweep ceiling fan	each	54
721	LED lamp 10/12 W	each	209
722	12"(300mm) metal exhaust fan of approved make	each	3
723	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	cum	50
724	Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete (earth measured in stacks will be reduced by 20% for payment).	cum.	50

725	Supplying and stacking sludge at site including royalty and carriage upto 5 km complete (sludge measured in stacks will be reduced by 8% for payment).	cum.	70
726	Supplying and stacking at site dump manure from approved source,including carriage upto 5 km complete (manure measured in stacks will be reduced by 8% for payment) : 2.4.3 Screened through sieve of I.S. designation 4.75 mm	cum.	40
727	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	sqm	280
728	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/or good earth to be paid separately).	cum	110
729	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	cum	70
730	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%),flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed,within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	cum	30
731	Providing and stacking of Fishtail palm of ht. 270-300 cm bottom girth 40-50 cm well developed in big size HDPE bags as per direction of the officer-in-charge.	each	5
732	Supply and stacking of Delonix regia (Gulmohar) plant of height 150-165 cm. in big poly bags of size 25 cm as per direction of the officer-in-charge	each	6

733	Providing and laying Neelgiri/Mexican grass turf with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with tools wooden (Dhurmos) and than rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establish properly, as per direction of officer-in-charge.	sqm	250
734	Providing and displaying of Brassia Variegated having ht. 30 cm, well developed with fresh and healthy foliage in 20 cm size of Earthen pot/ Plastic pot & as per direction of the officer-in-charge.	each	25
735	Providing and displaying of Croton Petra Bangalore variety having ht. 60cm to 75 cm with 4 to 6 branches, well developed, fresh and healthy colorfulleaves in 25 cm size of Earthen pot/Plastic pot & as per direction of theofficer-in-charge.	each	25
736	Providing and Displaying Bougainvillea named variety, Sobhra, Thima, Marry palmar, Cherry Blossom etc. well developed with fresh & healthy bushy in full bloom 75 to 90 cm ht. in 40 cm Cement Pot as per direction of the officer-in-charge.	each	15
737	Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, hedge, flower beds, foliages, creepers etc. including hoeing,weeding pruning replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mover and brush cutter , removal of garden waste, applying insecticide, pesticide & fertilizers(whenever required) top dressing of lawn with good earth and menure and maintenance of other garden related works as directed by office-in-charge (Cost of Good Earth, Manure, Fertilizer, Insecticide , Pesticide will be provided by the Department & lawn mover and brush cutter with fuel , other T & P material/articles shall be provided by the contractor.) -2.40.6 Open spaces(as per yard stick 1Mali =3.00Acre).	per sqm per year	250

738	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of fine sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with jamuna sand and cutting of paver blocks as per required size and pattern,finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc.complete as per manufacturer's specifications & direction of Engineer-in-Charge. <b>60mm thick C.C.paver block of M-35 grade with approved colour, design &amp; pattern.</b>	sqm	285
739	Edging with bricks laid dry length wise including excavation, refilling, consolidating with hand packing and spreading neatly surplus earth within a lead of 50 m: 100A class designation.F.P.S.Bricks	m	300
740	6.5 MP ,HD Bullet Camera,6 mmPoE, 1080P@25/30fps, WDR, NIR, BLC, Dual ICR, 30m IR, IP66, ousing,6mm Lens	each	15
741	16CH 720P,HD NVR,4 HDD 16ch 1080P/720P IP Camera Input, 16ch Realtime Display; 8ch 720P/4ch 1080P Sync Playback, Incoming: 128Mbps; Outgoing : 64Mbps HDMI, VGA Output, 4 SATA(Up to 16TB)	each	1
742	POE 16 Port POE Switches 100/1000	each	1
743	Cat 6 Cat 6 Cable(Bundle of 300 Meter)	each	4
744	Connector RJ 45 Connector(Complete Box)	each	1
745	Hard Surveillance Hard Disk 4TB Disk	each	1
746	Supply ,Instalaltion Testing and commissiiong of 55 " LED 16x7 with Full HD	each	1
747	5KVA ONLINE UPS WITH BATTERIES FOR 30 MIN BACK UP APPROVED MAKE: APC/CONSUL resolution APPROVED MAKE: LG/SAMSUNG NEOWATT	each	2
748	DESKTOP HP All-in-One 22-df0142in	each	5

749	Providing & fixing of white board in place all complete of Size 8' X 4'	each	18
750	Supplying and Installing of 3 seater desk & table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete.	each	120
751	Providing & fixing of Notice board in place all complete of Size 8' X 4'	each	4
752	Waiting hall SS Chairs (3 seating capacity)	each	3
753	Supplying of Revolving chair all complete of Godrej or durian make all complete	each	21
754	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -4' X 3'	each	18
755	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -12' X 5'	each	1
756	Supplying & Installing of Godrej make Boss table of size 7' X 3' X 2'-6" and boss chair all complete	set	1
757	Pack of 12 Size A3 Laminated Water Resistant Covid-19 Coronavirus Safety Prevention Posters for School Wall Self Adhesive Posters 17"x12"	each	18
758	Paper Plane Design Kid's Educational Set of 10 Multicolour A3 Poster Unframed Thick Paper with Tape (12 x 18 Inch)	each	18
<b>Bill Of Quantity- 5. Rajkiya Saro Sahun Madhya Vidyalaya, Bhagalpur</b>			
<b>S.No</b>	<b>ITEM OF WORK</b>	<b>Unit</b>	<b>Qty</b>
759	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge. With cement mortar 1:4 (1 cement :4 fine Sand)	sqm	1114.14
760	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50metres lead.	sqm	1114.4

761	Providing corrugated G.S. sheet roofing fixed with G.I.J. or hooks, bolts and nuts 8 mm diameter with bitumen and G. I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on over lapping of sheets complete (upto a pitch of 60°) excluding the cost or purlins, rafters and trusses. 1.00 mm thick with zinc coating not less than 275 gm/mz	sqm	19.51
762	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Second class teak wood	cum	0.042
763	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in- Charge. (Door chowkhats)	each	1
764	Providing and fixing ISI marked flush door shutters conforming to IS :2202 (Part I) non-decorative type,core of block board construction with frame of 1 st class hard wood and well matched commercial 3 plyveneering with vertical grains or cross bands and face veneers on both faces of shutters:35 mm thick including ISI marked Stainless Steel butthings with necessary screws	sqm	2.4
765	Diluting and injecting chemical emulsion for POSTCONSTRUCTION antitermites' treatment(including the cost of chemical emulsion) Treatment at points of contact of wood work by chemical emulsion chlordane. (in oil or kerosene based solution)@ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	metre	7
766	Providing 40X5mm flat iron hold fast 40cm long including fixing to frame with 10 mm dia. Bolts, nuts and wooden plugs and embedding in cement oncrete block 30x10x15 cm 1:3:6 mix(1 cement: 3 coarse sand : 6 graded stone 20mm nominal size)	each	6

767	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 250x10 mm	each	1
768	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete: 150x10 mm	each	1
769	Providing and fixing bright finished brass door latch with necessary screws etc. complete 300X16X5 mm	each	1
770	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete 300x16 mm	each	1
771	Renewing bottom rail and/or top runner of collapsible gate including making good all damages and applying priming coat of zinc chromate yellow primer of approved brand and manufacturer.	m	10
772	Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete. Wheel 50 mm dia and below	each	30
773	30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm ( $\pm 0.2$ mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm ( $\pm 0.2$ mm) wall thickness fixed to the shutter styles by means of plastic/ galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm ( $\pm 0.1$ mm) wall thickness . The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	sqm	4.725



774	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in- Charge.	meter	14.85
775	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade: Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	sqm	230.4
776	Diluting and injecting chemical emulsion for POSTCONSTRUCTION anti-termites' treatment (including the cost of chemical emulsion) Along external wall where the apron is not provided using chemical emulsion @ 7.5 liters / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete: With chlorpyrifos/Lindane E.C. 20% with 1% concentration	metre	84.765
777	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	sqm	2351.113
778	Providing and laying in situ seven course water proofing treatment with APP (Atactic poly-propylene) modified Polymeric membrane over roof consisting of first coat of bitumen primer @ 0.40Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 Kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 1.5mm thick of 2.25 Kg/sqm weight consisting of five layers prefabricated with centre core as 20micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with	sqm	292.003

	20micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 100 grouted with cement mortar 1:3 (1cement:3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12mm layer of cement mortar 1:3 (1 cement: 3 fine sand) and finished neat which shall be paid for separately .		
779	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations, of required size,approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups,including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Area of slab over 0.50 sqm	sqm	1.858
780	Providing edge moulding to 18 mm thick marble stone counters, vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.Granite work	meter	6.096
781	Providing & laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturer) of ist quality conforming to IS : 15622 of approved make in colours such shades except white , Ivory , Grey , Fume Red , Brown , laid on 20 mm thick Cement motar 1:4 (1 cement: 4 coarse sand ) including pointing the joints with white cement and matching pigment etc., complete.	sqm	25.528

782	Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge :Flamed finish granite stone slab Jet Black, Cherry Red, EliteBrown, Cat Eye or equivalent.	sqm	8.415
783	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (Thickness to be specified by the manufacture) of approved make in all colours, shades except burgundy , bottle green , black of any size as approved by Engineer-in-charge in skirting , risers of steps and dados over 12 mm thick bed of cement Motar 1:3(1 cement: 3 coarse sand ) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	51.226
784	Kota stone slab flooring over 20 mm (average ) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete . Base with 1:1:1 (1 lime : 1 surkhi: 1 coarse sand ) / 1:4 (1 cement: 4 coarse sand 20 to 25 mm thick -)	sqm	26.002
785	Kota stone slabs 20 mm thick in risers of steps skirting. Dado & pillars laid on 12 mm (average (thick cement mortar 1:3 (1 cement: 3 coarse sand ) and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete. Details of cost for 10 sqm	sqm	26.6
786	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	sqm	584.007
787	Cement concrete flooring 1:2:4(1 cement:2 coarse:sand:4 graded stone agregate) finished with a floating coat of neat cement including cement slurry, etc. but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	sqm	584.007
788	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	sqm	2351.113

789	Distempering with 1st quality acrylic distemper, having VOC (VolatileOrganic Compound ) content less than 50 grams/ litre, of approved brand and manufacture,including applying additional coats wherever required, to achieve even shade and colour.Two coats	sqm	2351.113
790	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work	sqm	1785.507
791	Finishing walls with Acrylic Smooth exterior paint of required shade : New work (Two or more coat applied @ 1.67 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	sqm	565.606
792	Providing and fixing hard drawn steel wire fabric of size 75 x25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of "L" shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in- charge.	sqm	79.176
793	Painting with ready mixed paint of approved brand and manufacture in all shades to give an even shade: Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacture's specifications including appropriate priming coat, preparation of surface, etc. complete. On steel work	sqm	158.352
794	Installation of Acrylic Sheet based LED Board in aluminium frame with LED lighting and sheet design as per drawing on MS L section in concrete (1:2:4), including lighting, fixtures, connection all complete	sqm	8
795	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :W.C. pan with ISI marked white solid plastic seat and lid.	each	4

796	Providing and fixing wash basins with C.P. brass pillar tap, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls and floors where required. White Vitreous china Wash basin of size 630 x 450mm with single 15mm C.P brass pillar tap.	each	3
797	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	3
798	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	each	3
799	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore	each	6
800	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 15 mm nominal outer dia pipes	metre	30
801	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 20 mm nominal outer dia pipes	metre	20

802	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 25 mm nominal outer dia pipes	metre	20
803	Providing & fixing Chlorinated polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge. Concealed work, including cutting chases and making good the walls 32 mm nominal outer dia pipes	metre	20
804	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete 25 to 40 mm nominal bore :	metre	20
805	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 15 mm nominal bore.	each	2
806	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 20 mm nominal bore.	each	2
807	Providing and fixing ball (brass) valve of approved quality. High or low pressure, with plastic floats complete: 25 mm nominal bore	each	2
808	Providing and fixing unplasticised PVC connection pipe with brass unions : 30 cm length 15 mm nominal bore	each	18
809	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Flexible pipe 40 mm dia	each	9
810	Providing and placing on terrace (at all floor levels) polyethylene <b>water storage tank</b> ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fitting and base support for tank.	per litre	600

811	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931	each	7
812	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 15 mm nominal bore.	each	7
813	Providing and fixing C.P brass angle valve for basin mixer and geyser points of approved quality confirming to IS:8931 15 mm nominal bore	each	7
814	Providing and fixing PTMT Grating of approved quality and colour Circular Type 125 mm nominal dia with 25 mm waste hole	each	10
815	Providing, laying and jointing glazed stone ware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc complete. 200 mm diameter	metre	50
816	Providing and laying cement concrete 1 : 5 : 10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) upto haunches of S.W. Pipes including bed concrete as per standard design. 200 mm diameter	metre	50
817	Providing and fixing square mouth S. W. Gully trap grade 'A' complete with C.I. grating brick masonry chamber with F.P.S bricks and water tight CI cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design 150 x 100 mm. size P type With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	9
818	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc complete 250 mm diameter R.C.C pipes	metre	50

819	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design : Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
820	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :Extra for depth for manholes Size 90x80 cmWith common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	6
821	Making khurra 45x45cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20mm nominal size) over PVC sheet 1mx1mx400 micron, finished with 12mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete :	Each	20
822	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion. Coupler 110mm	Each	20



823	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion. Single T with door 110x110x110 mm	Each	20
824	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10mm gap for thermal expansion. Bend 87.5° 110 mm bend	Each	20
825	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.110mm	Each	120
826	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	cum	7.2
827	Centring and shuttering including strutting,propping etc. and removal of form for. Suspended floors, roofs, landings, balconies and access platform	sqm	12
828	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately). All works upto plinth level	cum	1.5

829	Brick work with bricks of class designation 100A in foundations and plinth in : Cement mortar 1 :4 (1 cement: 4 coarse sand )	cum	4.5
830	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge 100 mm nominal size dia	m	30
831	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	m <sup>3</sup>	7.2
832	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	m <sup>3</sup>	7.2
833	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer for all leads & lifts, all complete as per direction of Engineer-in-charge.	m <sup>3</sup>	7.2
834	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 4.5 kg carbon dioxide extinguisher, IS marked, with high pressure discharge tube, horn, control valve, CCE approved cylinder	Nos.	4
835	Providing, storing, handling, shifting, installation, testing and commissioning of portable fire Extinguishers as described below: ISI marked (IS:15683) 6 kg Mono Ammonium Phosphate (ABC) type cartridge operated extinguishers	Nos.	4
836	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit with modular switch , modular plate, suitable size G.I. box etc as required. Group C	point	150
837	Wiring for twin control light point with 1.5 sq. mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box etc as required.	point	150

838	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	metre	12
839	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 6 sq. mm + 1 X 6 sq. mm earth wire	metre	12
840	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 4 X 10 sq. mm + 1 X 10 sq. mm earth wire	metre	12
841	Supplying and drawing following sizes of PVC insulated aluminium conductor, single core cable in the existing surface/ recessed PVC conduit as required. 6 x 2.5 sq. mm	metre	45
842	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	metre	200
843	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	each	315
844	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection, painting etc. as required.	each	45
845	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 amps "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	each	2
846	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 1 or 2 Module (75mmX75mm)	each	8

847	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 4 Module (125mmX75mm)	each	5
848	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 6 Module (200mmX75mm)	each	8
849	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required. 8 Module (125mmX125mm)	each	6
850	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 1 or 2 Module	each	24
851	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 4 Module (125mmX75mm)	each	5
852	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 6 Module (200mmX75mm)	each	26
853	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. 8 Module (125mmX125mm)	each	22
854	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed PVC conduit as required.	metre	100
855	Supplying and fixing stepped type electronic fan regulator on the existing modular plate/ switch box including connections but excluding modular plate etc. as required.	each	20
856	Supplying and fixing brass batten/ angle holder including connection etc. as required.	each	126
857	Supplying and fixing call bell/ buzzer suitable for single phase, 230 volts, complete as required	each	2
858	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required..	each	20

859	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Upto 450 mm sweep	each	2
860	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required. Extra for fixing the louvers shutters complete with frame for a exhaust fan of all sizes	each	2
861	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) 12 way (4 + 36), Double door	each	2
862	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.40 amps	each	2
863	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 63 amps	each	2
864	Supplying and fixing following rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive loads of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. 6/32 amps, Single pole	each	32
865	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required	each	80
866	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	set	1
867	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ termination with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping with 2 sets of brass nut bolt and & spring washer spaced at 50 mm)	metre	20

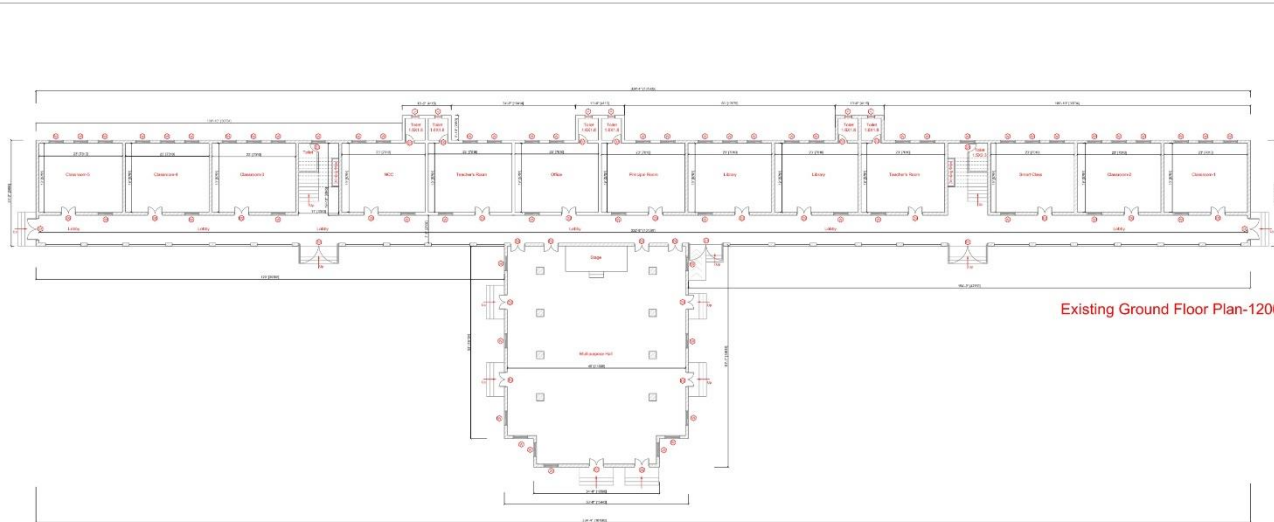
868	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	metre	14
869	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe 2.7 metre long etc. with charcoal/ coke and salt as required.	set	1
870	Supplying and laying 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, including connection with brass nut, bolt, spring, washer excavation and refilling etc. as required.	metre	10
871	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	metre	16
872	3 core, 185 sq. mm , 11 KV grade, armoured power H.T. cable , XLPE insulated with PVC sheathed & aluminium conductor (with 18% GST included)	metre	20
873	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required.Upto 120 sq. mm	metre	50
874	Providing and fixing lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	each	1
875	Fixing of lightning conductor finial (single prong) with base plate including holes etc. complete as required.	each	1
876	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	each	12
877	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	metre	6
878	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	metre	6
879	LED lamp 10/12 W	each	126
880	12"(300mm) metal exhaust fan of approved make	each	2
881	6.5 MP ,HD Bullet Camera,6 mm PoE, 1080P@25/30fps, WDR, NIR, BLC, Dual ICR, 30m IR, IP66, ousing,6mm Lens	each	8

882	16CH 720P,HD NVR,4 HDD 16ch 1080P/720P IP Camera Input, 16ch Realtime Display; 8ch 720P/4ch 1080P Sync Playback, Incoming: 128Mbps; Outgoing : 64Mbps HDMI, VGA Output, 4 SATA(Up to 16TB)	each	1
883	POE 16 Port POE Switches 100/1000	each	1
884	Cat 6 Cat 6 Cable(Bundle of 300 Meter)	each	2
885	Connector RJ 45 Connector(Complete Box)	each	1
886	Hard Disk Surveillance Hard Disk 4TB	each	2
887	Supply ,Instalaltion Testing and commissioning of 55 " LED 16x7 with Full HD resolution APPROVED MAKE: LG/SAMSUNG	each	1
888	5KVA ONLINE UPS WITH BATTERIES FOR 30 MIN BACK UP APPROVED MAKE:APC/CONSUL NEOWATT	each	1
889	DESKTOP HP All-in-One 22-df0142in Windows 10 Home Single Language 64 8 GB DDR4-3200 SDRAM (1 x 8 GB) 1 TB 7200 rpm SATA Intel® UHD Graphics 5.7 kg	each	4
890	Providing & fixing of white board in place all complete of Size 8' X 4'	each	6
891	Supplying and Installing of 3 seater desk & table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete.	each	120
892	Providing & fixing of Notice board in place all complete of Size 8' X 4'	each	2
893	Waiting hall SS Chairs (3 seating capacity)	each	1
894	Supplying of Revolving chair all complete of Godrej or durian make all complete	each	6
895	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -4' X 3'	each	6

896	Supplying and Installing of table all complete - White Laminated High gloss on Water proof & Pine Plyford, On SS 304 Steel hollow section of 2" X 2" frame all complete. Size -12' X 5'	each	2
897	`Supplying & Installing of Godrej make Boss table of size 7' X 3' X 2'-6" and boss chair all complete	set	1
898	Pack of 12 Size A3 Laminated Water Resistant Covid-19 Coronavirus Safety Prevention Posters for School Wall Self Adhesive Posters 17"x12"	each	4
899	Paper Plane Design Kid's Educational Set of 10 Multicolour A3 Poster Unframed Thick Paper with Tape (12 x 18 Inch)	each	4



# Drawings



Existing Ground Floor Plan-1206.349 m²



Existing First Floor Plan -905.934 m²

- NOTES**
1. Read this drawing along with architectural & structural drawings.
  2. Do not scale, follow written dimensions only.
  3. All dimensions are in mm unless otherwise noted.
  4. All dimensions & levels shall be checked & co-related with relevant architectural & structural drawing & in case of any discrepancy the matter shall be brought to the notice of the consultant before starting the work.
  5. Grade of concrete shall be M20 & shall be conforming to IS 456 - 2000.
  6. Reinforcement steel shall be High Strength Deformed TMT bars as per IS 1786 - 1983 and having a minimum yield strength of 500 N/mm² and having elongation more than 14.5%.
  7. Clear cover to main reinforcement shall be 50 mm for footing 40 mm for column, 25 mm for beam and 20 mm for slab. Side cover of footing shall be 75 mm.
  8. Lap length shall be equal to  $L_d = 57$  times smaller. Dia of bars and shall be inserted in following cases - Top bars - near support, Bottom bars - near end span.
  9. Whenever necessary chairs shall be provided to support the top reinforcement in position.
  10. All concrete shall be machine mixed and machine vibrated.
  11. Sufficient concrete cube test and steel yield strength test is to be performed for different batches & report shall be submitted to proper authority.
  12. Bearing Capacity of the soil is - 1200 kN/m² below Ground level as per soil test report.
  13. Foundation has been designed for (IS 456), structure - only.
  14.  $L_d$  means 57 times of dia of bars.
  15. Structure is designed for earthquake zone II.
  16. For any ambiguity/discrepancy, deficient provision (if any) not necessary etc. must be brought to the notice of consultant/design office for clarification and work must be carried out after obtaining approval from competent authority.

AREA-	
GROUND FLOOR	1206.349 m²
FIRST FLOOR	905.934 m²
<b>TOTAL B.S.A. -</b>	<b>2122.283 m²</b>

Opening or Reinforcement SCHEDULE				
S.NO.	TYPE	NAME	SIZE	TOTAL NO.
1.	Door	1.200x2.100	1.200x2.100	01
2.	Window	1.200x1.200	1.200x1.200	01
3.	Door	1.200x2.100	1.200x2.100	01
4.	Window	1.200x1.200	1.200x1.200	01
5.	Door	1.200x2.100	1.200x2.100	01
6.	Window	1.200x1.200	1.200x1.200	01
7.	Door	1.200x2.100	1.200x2.100	01
8.	Window	1.200x1.200	1.200x1.200	01
9.	Door	1.200x2.100	1.200x2.100	01
10.	Window	1.200x1.200	1.200x1.200	01
11.	Door	1.200x2.100	1.200x2.100	01
12.	Window	1.200x1.200	1.200x1.200	01
13.	Door	1.200x2.100	1.200x2.100	01
14.	Window	1.200x1.200	1.200x1.200	01
15.	Door	1.200x2.100	1.200x2.100	01
16.	Window	1.200x1.200	1.200x1.200	01
17.	Door	1.200x2.100	1.200x2.100	01
18.	Window	1.200x1.200	1.200x1.200	01
19.	Door	1.200x2.100	1.200x2.100	01
20.	Window	1.200x1.200	1.200x1.200	01

Sheet Title - Architectural Drawings

Floor Plan

Drawing No. AR-01 Sheet no - 01

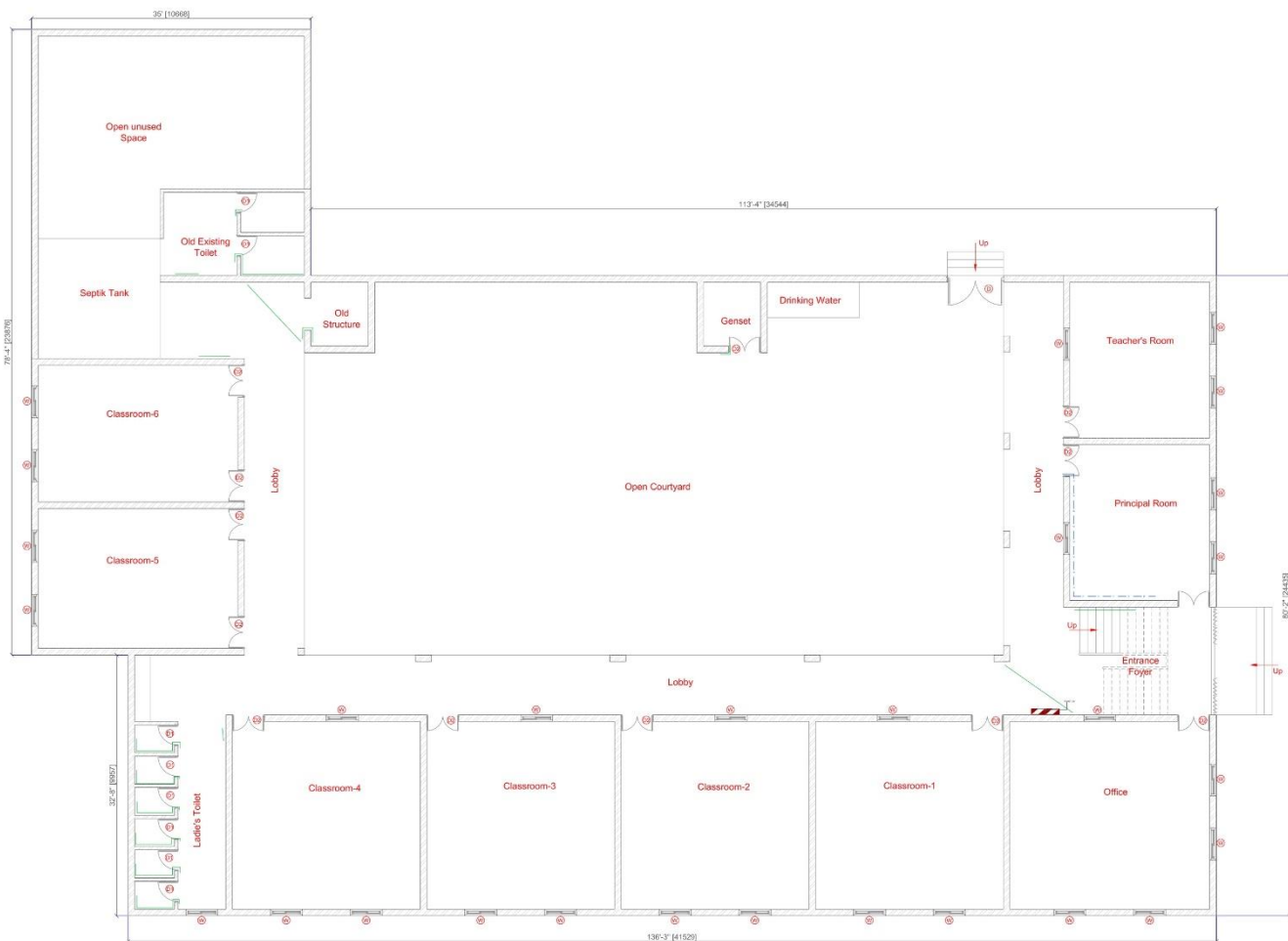
Project - Intermediate Zila School, Bhagalpur

Client - BSCL

Consultant - MaRS Planning and Engineering Services PVT. Ltd.

Date : 18-12-2020 North Drawn By - Swati Priya  
Scale : NTS Checked By - Gautam K. Modi





Existing Ground Floor Plan

- NOTES**
1. Read this drawing along with architectural & structural drawings.
  2. Do not scale, follow written dimensions only.
  3. All dimensions are in mm unless otherwise noted.
  4. All dimensions & levels shall be checked & co-related with relevant architectural & structural drawing & in case of any discrepancy the matter shall be brought to the notice of the consultant before starting the work.
  5. Grade of concrete shall be M20 & shall be conforming to IS: 456 - 2000.
  6. Reinforcement steel shall be High Strength Deformed TMT bars as per IS: 1786 - 1985 and having a minimum yield strength of 500 N/mm<sup>2</sup> and having elongation more than 14.5%.
  7. Clear cover to main reinforcement shall be 50 mm for footing 40 mm for column, 25 mm for beam and 20 mm for slab. Side cover of footing shall be 75 mm.
  8. Not more than 50% of bars shall be lapped at any section.
  9. Lap length shall be equal to  $L_d = 57$  times smaller Dia of bars and shall be provided in following cases - Top bars - near support, Bottom bars - near end span.
  10. Whenever necessary chairs shall be provided to support the lap reinforcement in position.
  11. All concrete shall be machine mixed and machine vibrated.
  12. Sufficient concrete cube test and steel yield strength test is to be performed for different batches & report shall be submitted to proper authority.
  13. Bearing Capacity of the soil is - 1200 kN/m<sup>2</sup> below Ground level as per soil test report.
  14. Foundation has been designed for (6 x 25) structures only.
  15. L<sub>d</sub> means 57 times of dia of bars.
  16. Structure is designed for earthquake zone II.
  17. For any ambiguity/discrepancy, deficient provision (if any) not necessary etc. must be brought to the notice of consultant/design office for clarification and work must be carried out after obtaining approval from competent authority.

**AREA-**  
GROUND FLOOR - 790.85 m<sup>2</sup>  
FIRST FLOOR - 649.22 m<sup>2</sup>  
TOTAL B.U.A - 1439.80 m<sup>2</sup>

Opening in Slab/Window SCHEDULE					
S.NO.	TYPE	NAME	SIZE	TOTAL NOS.	REMARKS
1.	Dr	Door	2.000x0.900	1	Door to the entrance
2.	Dr	Door	2.000x0.900	1	Door to the entrance
3.	Dr	Door	2.000x0.900	4	Door to the entrance
4.	Dr	Door	2.000x0.900	1	Door to the entrance
5.	Dr	Door	2.000x0.900	1	Door to the entrance
6.	Dr	Door	2.000x0.900	2	Door to the entrance
7.	Dr	Door	2.000x0.900	1	Door to the entrance
8.	Dr	Door	2.000x0.900	1	Door to the entrance
9.	Dr	Door	2.000x0.900	1	Door to the entrance
10.	Dr	Door	2.000x0.900	1	Door to the entrance
11.	Dr	Door	2.000x0.900	1	Door to the entrance
12.	Dr	Door	2.000x0.900	1	Door to the entrance
13.	Dr	Door	2.000x0.900	1	Door to the entrance
14.	Dr	Door	2.000x0.900	1	Door to the entrance
15.	Dr	Door	2.000x0.900	1	Door to the entrance
16.	Dr	Door	2.000x0.900	1	Door to the entrance
17.	Dr	Door	2.000x0.900	1	Door to the entrance
18.	Dr	Door	2.000x0.900	1	Door to the entrance
19.	Dr	Door	2.000x0.900	1	Door to the entrance
20.	Dr	Door	2.000x0.900	1	Door to the entrance
21.	Dr	Door	2.000x0.900	1	Door to the entrance
22.	Dr	Door	2.000x0.900	1	Door to the entrance
23.	Dr	Door	2.000x0.900	1	Door to the entrance
24.	Dr	Door	2.000x0.900	1	Door to the entrance
25.	Dr	Door	2.000x0.900	1	Door to the entrance
26.	Dr	Door	2.000x0.900	1	Door to the entrance
27.	Dr	Door	2.000x0.900	1	Door to the entrance
28.	Dr	Door	2.000x0.900	1	Door to the entrance
29.	Dr	Door	2.000x0.900	1	Door to the entrance
30.	Dr	Door	2.000x0.900	1	Door to the entrance
31.	Dr	Door	2.000x0.900	1	Door to the entrance
32.	Dr	Door	2.000x0.900	1	Door to the entrance
33.	Dr	Door	2.000x0.900	1	Door to the entrance
34.	Dr	Door	2.000x0.900	1	Door to the entrance
35.	Dr	Door	2.000x0.900	1	Door to the entrance
36.	Dr	Door	2.000x0.900	1	Door to the entrance
37.	Dr	Door	2.000x0.900	1	Door to the entrance
38.	Dr	Door	2.000x0.900	1	Door to the entrance
39.	Dr	Door	2.000x0.900	1	Door to the entrance
40.	Dr	Door	2.000x0.900	1	Door to the entrance
41.	Dr	Door	2.000x0.900	1	Door to the entrance
42.	Dr	Door	2.000x0.900	1	Door to the entrance
43.	Dr	Door	2.000x0.900	1	Door to the entrance
44.	Dr	Door	2.000x0.900	1	Door to the entrance
45.	Dr	Door	2.000x0.900	1	Door to the entrance
46.	Dr	Door	2.000x0.900	1	Door to the entrance
47.	Dr	Door	2.000x0.900	1	Door to the entrance
48.	Dr	Door	2.000x0.900	1	Door to the entrance
49.	Dr	Door	2.000x0.900	1	Door to the entrance
50.	Dr	Door	2.000x0.900	1	Door to the entrance
51.	Dr	Door	2.000x0.900	1	Door to the entrance
52.	Dr	Door	2.000x0.900	1	Door to the entrance
53.	Dr	Door	2.000x0.900	1	Door to the entrance
54.	Dr	Door	2.000x0.900	1	Door to the entrance
55.	Dr	Door	2.000x0.900	1	Door to the entrance
56.	Dr	Door	2.000x0.900	1	Door to the entrance
57.	Dr	Door	2.000x0.900	1	Door to the entrance
58.	Dr	Door	2.000x0.900	1	Door to the entrance
59.	Dr	Door	2.000x0.900	1	Door to the entrance
60.	Dr	Door	2.000x0.900	1	Door to the entrance
61.	Dr	Door	2.000x0.900	1	Door to the entrance
62.	Dr	Door	2.000x0.900	1	Door to the entrance
63.	Dr	Door	2.000x0.900	1	Door to the entrance
64.	Dr	Door	2.000x0.900	1	Door to the entrance
65.	Dr	Door	2.000x0.900	1	Door to the entrance
66.	Dr	Door	2.000x0.900	1	Door to the entrance
67.	Dr	Door	2.000x0.900	1	Door to the entrance
68.	Dr	Door	2.000x0.900	1	Door to the entrance
69.	Dr	Door	2.000x0.900	1	Door to the entrance
70.	Dr	Door	2.000x0.900	1	Door to the entrance
71.	Dr	Door	2.000x0.900	1	Door to the entrance
72.	Dr	Door	2.000x0.900	1	Door to the entrance
73.	Dr	Door	2.000x0.900	1	Door to the entrance
74.	Dr	Door	2.000x0.900	1	Door to the entrance
75.	Dr	Door	2.000x0.900	1	Door to the entrance
76.	Dr	Door	2.000x0.900	1	Door to the entrance
77.	Dr	Door	2.000x0.900	1	Door to the entrance
78.	Dr	Door	2.000x0.900	1	Door to the entrance
79.	Dr	Door	2.000x0.900	1	Door to the entrance
80.	Dr	Door	2.000x0.900	1	Door to the entrance
81.	Dr	Door	2.000x0.900	1	Door to the entrance
82.	Dr	Door	2.000x0.900	1	Door to the entrance
83.	Dr	Door	2.000x0.900	1	Door to the entrance
84.	Dr	Door	2.000x0.900	1	Door to the entrance
85.	Dr	Door	2.000x0.900	1	Door to the entrance
86.	Dr	Door	2.000x0.900	1	Door to the entrance
87.	Dr	Door	2.000x0.900	1	Door to the entrance
88.	Dr	Door	2.000x0.900	1	Door to the entrance
89.	Dr	Door	2.000x0.900	1	Door to the entrance
90.	Dr	Door	2.000x0.900	1	Door to the entrance
91.	Dr	Door	2.000x0.900	1	Door to the entrance
92.	Dr	Door	2.000x0.900	1	Door to the entrance
93.	Dr	Door	2.000x0.900	1	Door to the entrance
94.	Dr	Door	2.000x0.900	1	Door to the entrance
95.	Dr	Door	2.000x0.900	1	Door to the entrance
96.	Dr	Door	2.000x0.900	1	Door to the entrance
97.	Dr	Door	2.000x0.900	1	Door to the entrance
98.	Dr	Door	2.000x0.900	1	Door to the entrance
99.	Dr	Door	2.000x0.900	1	Door to the entrance
100.	Dr	Door	2.000x0.900	1	Door to the entrance

Sheet Title - Architectural Drawings

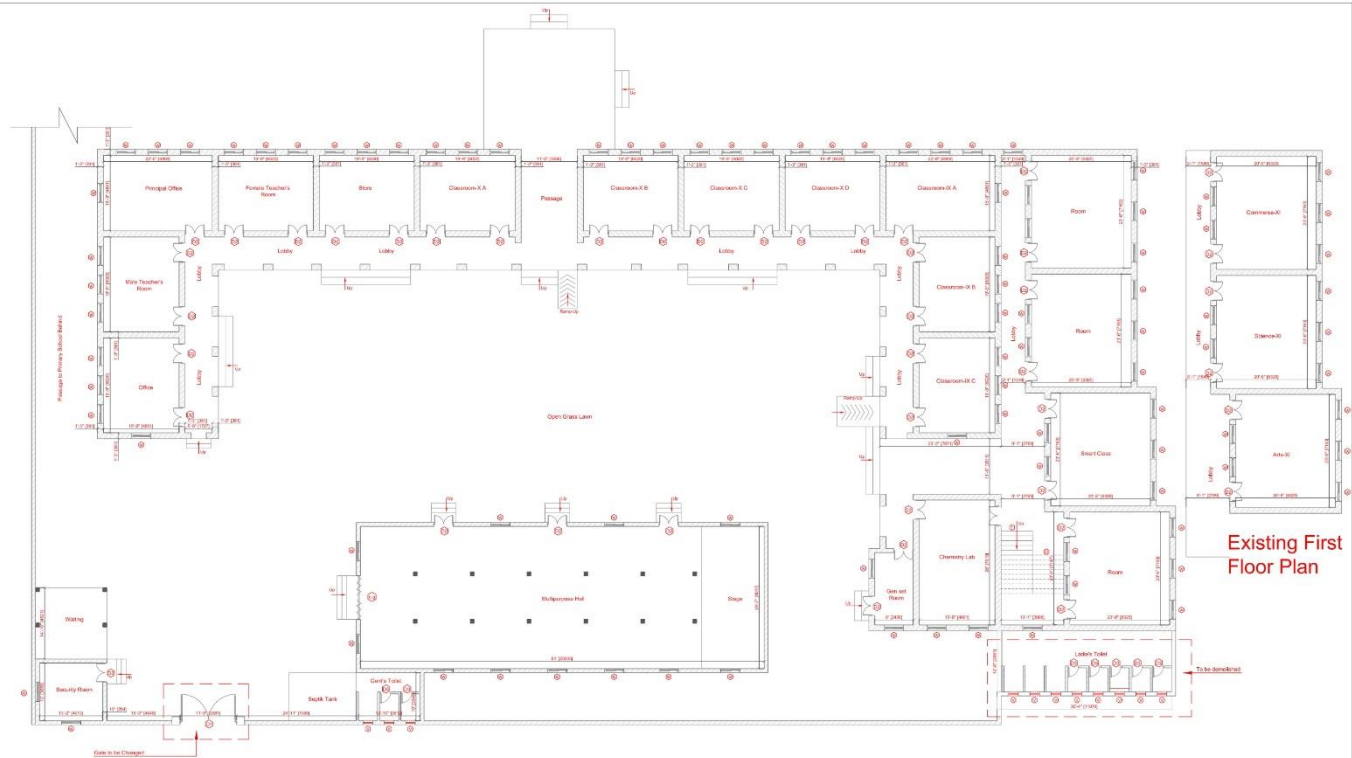
Proposed Floor Plan

Drawing No: AR-01 Sheet no: 01

Project - Jhunjhuni Bala Adarsh Balika Vidyalaya  
Client - BSCCL

Consultant - MaRS Planning and Engineering Services PVT. Ltd.

Date: 18-12-2020  
Scale: NTS  
North  
Drawn By: Swati Priya  
Checked By: Gautam K. Modi



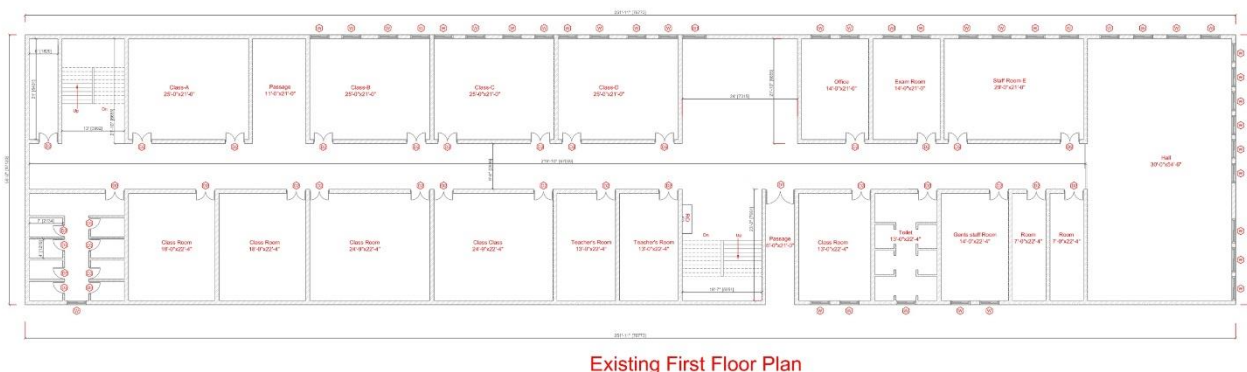
Existing Ground Floor Plan

Existing First Floor Plan

- NOTES**
1. Read this drawing along with architectural & structural drawings.
  2. Do not scale, follow written dimensions only.
  3. All dimensions are in mm unless otherwise noted.
  4. All dimensions & levels shall be checked & co-related with relevant architectural & structural drawing & in case of any discrepancy the latter shall be brought to the notice of the consultant before starting the work.
  5. Grade of concrete shall be M20 & shall be conforming to IS 456 : 2000.
  6. Reinforcement steel shall be High Strength Deformed TMT bars as per IS 1786 : 1983 and having a minimum yield strength of 500 N/mm<sup>2</sup> and having elongation more than 14.5%.
  7. Clear cover to main reinforcement shall be 50 mm for footing 40 mm for column, 25 mm for beam and 20 mm for slab. Side cover of footing shall be 75 mm.
  8. Not more than 50% of bars shall be lapped at any section.
  9. Lap length shall be equal to  $L_d = 57$  times smaller dia of bars and shall be provided in following cases - Top bars - near support, Bottom bars - near end span.
  10. Whenever necessary chairs shall be provided to support the lap reinforcement in position.
  11. All concrete shall be machine mixed and machine vibrated.
  12. Sufficient concrete cube test and steel yield strength test is to be performed for different batches & report shall be submitted to proper authority.
  13. Bearing Capacity of the soil is  $1500 \text{ kN/m}^2$  as per soil test report.
  14. Foundation has been designed for (IS 456).
  15. Structure is designed for earthquake zone II.
  16. Ld means 57 times of dia of bars.
  17. Structure is designed for earthquake zone II.
  18. For any ambiguity/discrepancy, deficient provision (if any) not mentioned in this drawing shall be brought to the notice of consultant/design office for clarification and work must be carried out after obtaining approval from competent authority.

AREA:-  
GROUND FLOOR -  
TOTAL BUA - 1452.60 sqm.

Scheduling of Door/Window SCHEDULE					
	TYPE	NAME	SIZE	TOTAL NO.	REMARKS
01	Door	2.30'X12.00'	03		Access to the main entrance
02	Door	1.80'X12.00'	01		Access to the main entrance
03	Door	1.80'X12.00'	45		Access to the main entrance
04	Door	2.30'X12.00'	15		Access to the main entrance
05	Door	2.70'X12.00'	1		Access to the main entrance
06	Window	2.30'X12.00'	15		Access to the main entrance
07	Window	2.30'X12.00'	15		Access to the main entrance
08	Window	2.30'X12.00'	15		Access to the main entrance
09	Window	2.30'X12.00'	15		Access to the main entrance
10	Window	2.30'X12.00'	15		Access to the main entrance
11	Window	2.30'X12.00'	15		Access to the main entrance
12	Window	2.30'X12.00'	15		Access to the main entrance
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- NOTES**
1. Read this drawing along with architectural & structural drawings.
  2. Do not scale, follow written dimensions only.
  3. All dimensions are in mm unless otherwise noted.
  4. All dimensions & levels shall be checked & co-related with relevant architectural & structural drawing & in case of any discrepancy the latter shall be brought to the notice of the consultant before starting the work.
  5. Grade of concrete shall be M20 & shall be conforming to IS: 456 - 2000.
  6. Reinforcement steel shall be High Strength Deformed TMT bars as per IS: 1786 - 1983 and having a minimum yield strength of 500 N/mm<sup>2</sup> and having elongation more than 14.5%.
  7. Clear cover to main reinforcement shall be 50 mm for footing 40 mm for column, 25 mm for beam and 20 mm for slab. Side cover of footing shall be 75 mm.
  8. Lap length shall be equal to  $L_d = 57$  times smaller Dia of bars and shall be provided in following cases - Top bars - near support, Bottom bars - near end span.
  9. Whenever necessary chairs shall be provided to support the top reinforcement in position.
  10. All concrete shall be machine mixed and machine vibrated.
  11. Sufficient concrete cube test and steel yield strength test is to be performed for different batches & report shall be submitted to owner authority.
  12. Bearing Capacity of the soil is - 1200 kN/m<sup>2</sup> below Ground level as per soil test report.
  13. Foundation has been designed for (IS: 456).
  14. L<sub>d</sub> means 57 times of dia of bars.
  15. Structure is designed for earthquake zone II.
  16. For any ambiguity/discrepancy, deficient provision (if any) not mentioned etc. must be brought to the notice of consultant/design office for clarification and work must be carried out after obtaining approval from competent authority.

AREA:-  
GROUND FLOOR - 1314.79 m<sup>2</sup>  
FIRST FLOOR - 1314.79 m<sup>2</sup>  
TOTAL B.U.A - 2629.58 m<sup>2</sup>

Drawing or Description				
S. NO.	TYPE	NAME	SIZE	TOTAL NO.
1.	Room	Room	12.00x12.00	01
2.	Room	Room	12.00x12.00	01
3.	Room	Room	12.00x12.00	01
4.	Room	Room	12.00x12.00	01
5.	Room	Room	12.00x12.00	01
6.	Room	Room	12.00x12.00	01
7.	Room	Room	12.00x12.00	01
8.	Room	Room	12.00x12.00	01
9.	Room	Room	12.00x12.00	01
10.	Room	Room	12.00x12.00	01
11.	Room	Room	12.00x12.00	01
12.	Room	Room	12.00x12.00	01
13.	Room	Room	12.00x12.00	01
14.	Room	Room	12.00x12.00	01
15.	Room	Room	12.00x12.00	01
16.	Room	Room	12.00x12.00	01
17.	Room	Room	12.00x12.00	01
18.	Room	Room	12.00x12.00	01
19.	Room	Room	12.00x12.00	01
20.	Room	Room	12.00x12.00	01

Sheet Title - Architectural Drawings

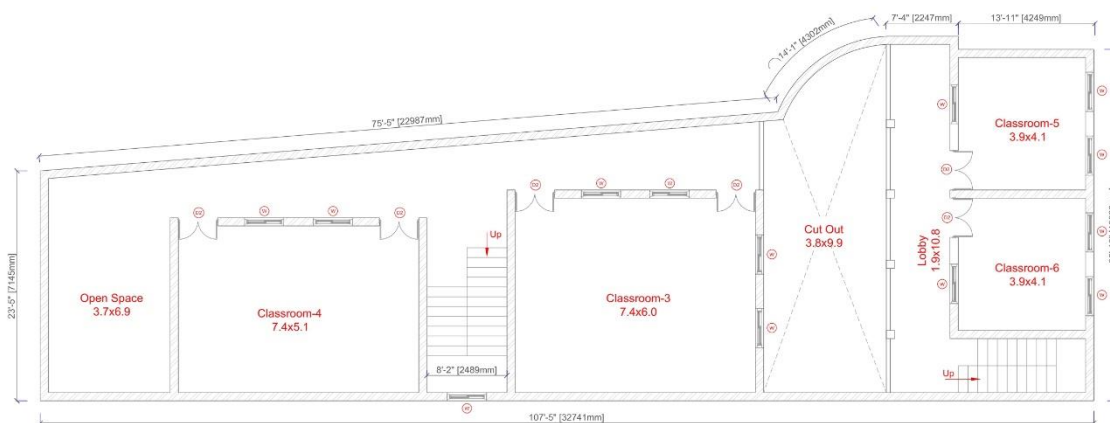
Existing Floor Plan

Drawing No: AR-01 Sheet no: 01

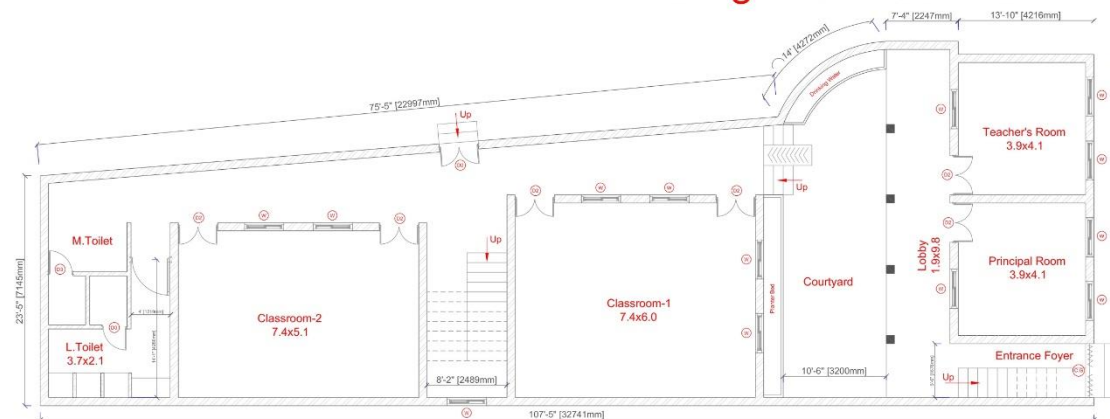
Project - Raksha Balika Inter Vidyalaya, Bhagpur  
Client - BSCIL

Consultant - MARS Planning and Engineering Services PVT. Ltd.

Date: 18-12-2020 North Drawn By: Abul Khalid  
Scale: NTS Checked By: Gautam K. Modi



Existing First Floor Plan



Existing Ground Floor Plan

- NOTES**
1. Read this drawing along with architectural & structural drawings.
  2. Do not scale, follow written dimensions only.
  3. All dimensions are in mm unless otherwise noted.
  4. All dimensions & levels shall be checked & co-related with relevant architectural & structural drawing & in case of any discrepancy the matter shall be brought to the notice of the consultant before starting the work.
  5. Grade of concrete shall be M20 & shall be conforming to IS: 456 - 2000.
  6. Reinforcement steel shall be High Strength Deformed TMT bars as per IS: 1786 - 1983 and having a minimum yield strength of 500 N/mm<sup>2</sup> and having elongation more than 14.5%.
  7. Clear cover to main reinforcement shall be 50 mm for footing 40 mm for column, 25 mm for beam and 20 mm for slab. Side cover of footing shall be 75 mm.
  8. Lap length shall be equal to L<sub>d</sub> = 57 times smaller Dia of bars and shall be provided in following cases - Top bars - near support, Bottom bars - near mid span.
  9. Whenever necessary chairs shall be provided to support the lap reinforcement in position.
  10. All concrete shall be machine mixed and machine vibrated.
  11. Sufficient concrete cube test and steel yield strength test is to be performed for different batches & report shall be submitted to proper authority.
  12. Bearing Capacity of the soil is - 150 kN/m<sup>2</sup> below Ground level as per soil test report.
  13. Foundation has been designed for (6 \* 6), structure only.
  14. L<sub>d</sub> means 57 times of dia of bars.
  15. Structure is designed for earthquake zone II.
  16. For any ambiguity/discrepancy, deficient provision (if any) not necessary etc. must be brought to the notice of consultant/design office for clarification and work must be carried out after obtaining approval from competent authority.

AREA-  
GROUND FLOOR - 292.12 m<sup>2</sup>  
FIRST FLOOR - 292.12 m<sup>2</sup>  
TOTAL BUA - 584.24 m<sup>2</sup>

Drawing or Specification REFERENCE					
SL. NO.	TYPE	NAME	SIZE	TOTAL NO.	REMARKS
1.	Door	1.8x2.1	10	10	
2.	Door	1.8x2.1	10	10	
3.	Door	1.8x2.1	10	10	
4.	Door	1.8x2.1	10	10	
5.	Door	1.8x2.1	10	10	
6.	Door	1.8x2.1	10	10	
7.	Door	1.8x2.1	10	10	
8.	Door	1.8x2.1	10	10	
9.	Door	1.8x2.1	10	10	
10.	Door	1.8x2.1	10	10	
11.	Door	1.8x2.1	10	10	
12.	Door	1.8x2.1	10	10	
13.	Door	1.8x2.1	10	10	
14.	Door	1.8x2.1	10	10	
15.	Door	1.8x2.1	10	10	
16.	Door	1.8x2.1	10	10	
17.	Door	1.8x2.1	10	10	
18.	Door	1.8x2.1	10	10	
19.	Door	1.8x2.1	10	10	
20.	Door	1.8x2.1	10	10	

Sheet Title -

Architectural Drawings

Existing Floor Plan

Drawing No: AR-01

Sheet no: 01

Project - Rajhiya Sans Sathun, Bhagpur

Client - BSCCL

Consultant - MaRS Planning and Engineering Services PVT. Ltd.

Date: 18-12-2020  
Scale: NTS  
North  
Drawn By: Swati Priya  
Checked By: Gautam K. Modi

**Chief Executive Officer**

**Sd/-**  
**Chief Executive Officer**  
**Bhagalpur Smart City Limited**