

**Shillong Smart City Limited**  
**Shillong, Meghalaya**

**Bidding Document**

**For**

Development of Office Cum Automated Multi-Level Car  
Park (On DBOT Basis) at Mawkhar, Shillong

**Tender No.: SSCL/Tender/2021-22/ MEG-SHI-38**

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**Office of the Shillong Smart City Limited**

House No. C/B-037, Top Floor,  
Centre Nongrim Hills, Near JJ Cables, Shillong  
East Khasi Hills District, Meghalaya – 793003

## DISCLAIMER

The information contained in this Request for Proposal document ("RFP") or subsequently provided to Bidders, whether orally or in documentary or any other form by or on behalf of the Shillong Smart City Limited or any of its employees or advisers, is provided to Bidders on the terms & conditions set out in this RFP such other terms conditionssubject to which such information is provided.

This RFP is not an agreement is neither an offer by the Shillong Smart City Limited, (hereafter it will be referred as "SSCL") to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation of their Proposals pursuant to this RFP.

This RFP includes statements, which reflects the intentions of the Shillong Smart City Limited in relation to the Selection of Bidder for Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong for SSCL.

The Shillong Smart City Limited , its employees advisers make no representation or warranty shall have no liability to any person including any Bidder under any law, statute, rules or regulations or part, 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 and contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP 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 Shillong Smart City Limited 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 Shillong Smart City Limited 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 Shillong Smart City Limited is bound to award this work to any bidder/ bidders, as the case may be, for installation/ erection of Mechanized Multi-level Parking Systems on the identified locations. Shillong Smart City Limited reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The Bidders shall bear all its costs associated with or relating to the preparation submissionof its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated in connection with or relating to its Proposal. All such costs expenses will remain with the Bidders the Shillong Smart City Limited 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 for submission of the Proposal, regardless of the conduct or outcome of the Selection Process.

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## **SECTION 1**

### **CONTENT OF BIDDING DOCUMENTS**

The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 9:

1. **SECTION 1:**
  - Content of Bidding Documents
  - Notice inviting Bid
  - List of Important Dates
  - Document Checklist
2. **SECTION 2:** Instruction to Bidders
3. **SECTION 3:** Qualification Information
4. **SECTION 4:** GCC and SCC
5. **SECTION 5:** Scope of Work & Technical Specifications
6. **SECTION 6:** Preliminary Drawings (Tender Purpose)
7. **SECTION 7:** Forms of Bid

## NOTICE INVITING TENDER

### SHILLONG SMART CITY LIMITED

NIT: SSCL/Tender/2021-22/MEG-SHI-38

Dated: 08/12/2022

1. The Chief Executive Officer (CEO), Shillong Smart City Limited (SSCL) invites Bids for the following work:

Tender No.	Name of the Work	Approx. Estimated project Cost	Tender Fee (non-refundable)	Earnest Money Deposit	Period of Completion	Defect Liability Period
SSCL/Tender/2021-22/MEG-SHI-38	Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong	Rs. 20.30 Crore inclusive GST	Rs. 15,000 (Rupees Fifteen Thousand Only) plus GST	Rs. 40.60 Lakhs (Rupees Forty – Lakh and Sixty Thousand Only) plus GST	Twenty-Four (24) Calendar Months for construction from the date of issue of Notice to Proceed and Five years of Operation and maintenance	1 Year

2. Bidding Documents can be downloaded from 09.12.2022 at 10:00 Hrs. to 22.12.2022 at 15:00 Hrs. from the following websites: <http://megurban.gov.in> or <http://meghalaya.gov.in/megportal/tender>.
3. Bidders are requested to submit the Tender Fee in the form of DD and Earnest Money Deposit (EMD) in the form of DD/FDR/BG in the favour of Chief Executive Officer, Shillong Smart City Limited (SSCL), Shillong.
4. The deadline of bid-submission (hard copy submission only) is 15:00 Hrs. on 22.12.2022.
5. For more details contact Chief Executive Officer, Shillong Smart City Limited (SSCL), House No. C/B-037, Top Floor, Centre Nongrim Hills, Near JJ Cables, Shillong, East Khasi Hills District, Meghalaya – 793003, Contact No. +91-9669827940 and through email at [shillongsmartcitylimitedp38@gmail.com](mailto:shillongsmartcitylimitedp38@gmail.com)

**Chief Executive Officer,**  
Shillong Smart City Limited

## LIST OF IMPORTANT DATES

1	Name of Work:	Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong under Shillong Smart City Mission
2	Tender Fee (Non-Refundable)	Rs. 15,000 (Rupees Fifteen Thousand only) plus GST
3	Tender Security Amount (EMD)	Rs. 40.60 Lakhs (Rupees Forty – Lakh and Sixty Thousand Only) plus GST
4	Completion Period for construction	24 Months (Including Monsoon Period)
5	Date of Issue of Notice Inviting Bid	08/12/2022
6	Period and Site for downloading of Bidding Documents	From 09/12/2022 at 10.00 Hrs to 22/12/2022 at 15.00 hrs Website: <a href="http://http://megurban.gov.in">http://http://megurban.gov.in</a> <a href="http://meghalaya.gov.in/megportal/tender">http://meghalaya.gov.in/megportal/tender</a>
7	Last date of seeking clarifications	13/12/2022 (up to 18.00 Hrs.)
8	Bid Clarification and Queries Addressed to	Shillongsmartcitylimitedp38@gmail.com
9	Pre-bid Conference	Date: 14/12/2022 Time: 11:00 Hrs Venue: Conference Hall, Office of the Shillong Smart City Limited House No. C/B-037, Top Floor, Centre Nongrim Hills, Near JJ Cables, Shillong, East Khasi Hills District, Meghalaya - 793003
10	Uploading replies to Pre-bid queries	16/12/2022
11	Deadline for Receiving Bids	Date: 22/12/2022 Time: 15.00 hrs
12	Time and Date for opening Technical Bid/Bids	Date: 22/12/2022 Time: 15.30 hrs
13	Date of opening of Financial Bid (of technically qualified bidders only)	To be notified
14	Place of opening of technical bids	Conference Hall, Office of the Shillong Smart City Limited House No. C/B-037, Top Floor, Centre Nongrim Hills, Near JJ Cables, Shillong, East Khasi Hills District, Meghalaya - 793003
15	Last Date of Bid Validity	180 days from the last date of submission of bid
16	Officer Inviting Bids	Chief Executive Officer (CEO), Shillong Smart City Limited (SSCL)

**Note:** If the date of submission of tenders happens to be a public holiday for the Employer, Tenders will be received and opened on the next working day at the same venue and time. Bidders are requested to check the website for regular updates

## DOCUMENT CHECKLIST

S.No.	DOCUMENTS
1	Tender Fee in the form of Demand Draft (DD)
2	Earnest Money Deposit (EMD)/ Bid Security
3	Power of Attorney (PoA), MoU between the members of Joint Venture or Consortium or Association
4	Affidavit certifying the following: <ul style="list-style-type: none"> <li>• That the information furnished with the bid documents is correct in all respects and authorise SSCL to verify, if necessary;</li> <li>• That the Bidder has not been convicted by a court of law for criminal activities</li> <li>• That the Bidder does not have in employment the following persons: <ul style="list-style-type: none"> <li>○ The near relation (defined as first blood relations, and their spouses, of the bidder or the bidder's spouse) of persons listed in the Appendix 'to ITB; and</li> <li>○ Without Government permission, any person who retired as gazetted officer within the last two years of the rank and from the departments listed in the Appendix to ITB.</li> </ul> </li> </ul>
5	Registration Certificate (s) with Government (Central Government or State Government or Urban Local Body, etc. as specified in the Bidding Document)
6	Documents on legal status of the Bidder such as: <ul style="list-style-type: none"> <li>• In case of Companies: Memorandum of Association (MoA) and Articles of Association (AoA), Certificate of incorporation/ registration, etc;</li> <li>• In case of Partnership Firms: Partnership Deed for firms registered under Indian Partnership Act, 1932 or Limited Liability Partnership Act, 2008, Certificate of Registration, etc.;</li> <li>• In case of Proprietorship Firms: GST Registration Certificate, MSME Registration Certificate (if applicable) and Income Tax Returns for last 3 financial years (i.e., 2019-20, 2020-21 and 2021-22 corresponding to AY 2020-21, 2021-22 and 2022-23 respectively).</li> </ul>
7	PAN Card
8	GST Registration Certificate
9	All pages of following documents signed, sealed, and enclosed with Technical Bid: <ol style="list-style-type: none"> <li>i. Notice Inviting Tender</li> <li>ii. Bid Document</li> <li>iii. Latest Corrigendum</li> <li>iv. Pre-bid Minutes</li> <li>v. Addendum (if any)</li> </ol>
10	Duly numbered, signed, and sealed Technical and Financial Bid (all pages)
11	Information in prescribed format as under: <ul style="list-style-type: none"> <li>• Tech Form 1: Letter of Technical Bid</li> <li>• Tech Form 2: Bidders Information Sheet</li> <li>• Tech Form 2A: JV Agreement (or Consortium/ Association, as applicable)</li> <li>• Tech Form 2B: Power of Attorney</li> <li>• Tech Form 3A: Financial Capacity</li> <li>• Tech Form 3B: Average Annual Turnover from MLCP Projects (including O&amp;M)</li> <li>• Tech Form 4A: Availability of Financial Resources</li> <li>• Tech Form 4B: Evidence of access to or availability of credit facilities</li> </ul>



	<ul style="list-style-type: none"><li>• Tech Form 4C: Solvency Certificate from Bank</li><li>• Tech Form 5: Current Contract Commitments / Works in Hand</li><li>• Tech Form 6: Bidding Capacity Information &amp; Declaration</li><li>• Tech Form 7: General Construction Experience</li><li>• Tech Form 7A: Similar Work Experience</li><li>• Tech Form 8A: Site Organization</li><li>• Tech Form 8B: Method Statement</li><li>• Tech Form 8C: Mobilization Schedule</li><li>• Tech Form 8D: Work Plan and Construction Schedule</li><li>• Tech Form 8E: Equipment</li><li>• Tech Form 8F: Resume of Proposed Personnel</li><li>• Tech Form 9: Pending Litigations</li><li>• Tech Form 10: Format for Declaration by the bidder for not being Blacklisted / Debarred</li><li>• Tech Form 11: Integrity Pact</li><li>• Tech Form 12: Certificate from the Bidders regarding compliance of orders from Department of Expenditure, Ministry of Finance, Government of India with respect to Procurement from a Bidder of a Country which shares a Land Border with India</li><li>• Fin Form 1: Letter of Financial Bid (to be submitted in Financial Bid Envelope)</li></ul>
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## SECTION 2

### INSTRUCTIONS TO BIDDERS (ITB)

Clause	A. General	Clause	D. Submission of Bids
1	Scope of Bid	20	Deadline for Submission of Bids
2	Source of Funds	21	Late Bids
3	Eligible Bidders	22	Withdrawal, substitution and Modification of tenders
4	Qualification of the Bidder	<b>E. Bid Opening and Evaluation</b>	
5	One Bid per Bidder	23	Bid Opening
6	Cost of Bidding	24	Process to be Confidential
7	Site Visit	25	Clarification of Bids and Contracting the Employer
<b>B. Bidding Documents</b>		26	Examination of bids and Determination of Responsiveness
8	Content of Bidding Documents	27	Correction of Errors
9	Pre-bid meeting and clarifications	28	Evaluation and Comparison of Bids
10	Amendment of Bidding Documents	29	Price Preference
<b>C. Preparation of Bids</b>		<b>F. Award of Contract</b>	
11	Language of Bid	30	Award Criteria
12	Documents Comprising the Bid	31	Employer's Right to accept any Bid and to Reject any or all Bids
13	Bid Prices	32	Notification of Award and signing of Agreement
14	Currencies of Bid	33	Performance Security
15	Bid Validity	34	Advances
16	Bid Security/ Earnest Money Deposit	35	Corrupt or Fraudulent Practices
17	Alternative Proposals by Bidders		
18	Format and Signing of Bid		
19	Sealing and Marking of Bids		

## A. GENERAL

### 1. Scope of Bid

- 1.1. The Government of India has announced creation of 100 Smart cities to drive economic growth and improve the quality of life of people by enabling local development and harnessing technology as a means to create smart outcomes for citizens. Shillong is one of the selected cities for the smart city initiative under Ministry of Housing and Urban Affairs (MoHUA), Government of India. Shillong Smart City Limited (SSCL) has been set up as a Special Purpose Vehicle (SPV) to implement the 'Smart Cities Mission' in Shillong city. As part of the said Mission, SSCL ("Employer") invites bids for "Development of Office Cum Automated Multi-Level Car Park on Design Build Operate and Transfer (DBOT) Basis at Mawkhar, Shillong under Shillong Smart City Mission" as described in these documents and referred to as "**The Works**". The name of the Employer and its representative as provided in the Appendix to ITB. The bidders are required to submit bids for all the works detailed in the table given in the Notice Inviting Tender.
- 1.2. The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the *Part I General Conditions of Contract*.
- 1.3. Throughout these documents, the terms "**Bid**" and "**Tender**" and their derivatives (bidder/tenderer, bid/tender, bidding/tendering, etc.) are synonymous.
- 1.4. Throughout these documents, the terms "**Engineer**" and "**Engineer in Charge**" and their derivatives are synonymous.

### 2. Source of Funds

- 2.1. The *Shillong Smart City Ltd.* has decided to undertake the work.
- 2.2. The funding will be as per the *Smart City Mission Guidelines*.

### 3. Eligible Bidders

- 3.1. A Bidder may be a private Entity, government-owned Entity or, where permitted in the Bidding Document, any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture [JV], Consortium or Association.
- 3.2. This Invitation for Bids is open to all eligible bidders as defined in the Appendix to ITB.
- 3.3. Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any Public Sector Undertaking, Autonomous Body, Authority, Agency by whatever name called under the Central Government, any State Government, Union Territory or Urban Local Body.
- 3.4. Any bidder who has been convicted by a court of law for criminal activities including but not limited to organized crime or gangster activities or Mafia or Goonda or Anti-social activity in the last 7 years (till the date of NIT) is not eligible to bid. If it is established that any bidder has been convicted by a court of law, his bid shall be automatically cancelled. A self-certified affidavit is to be submitted by bidder.
- 3.5. The bidder must have solvency of **minimum 15%** of the Estimated Project Cost. A solvency certificate, duly certified by the Banker of any nationalized bank or scheduled commercial bank is to be submitted by the bidder. The certificate should not be more than 06 months old prior to the date of submission of tender or should have validity as on last date of submission of tender.

- 3.6. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the following conditions are met<sup>1</sup>:
- I. Any Bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as defined in Order (Public Procurement No. 1) bearing reference No. 6/18/2019-PPD dated 23<sup>rd</sup> July 2020 of the Public Procurement Division, Department of Expenditure, Ministry of Finance, Govt. of India. The said Order as amended from time to time or any other Order by Govt. of India in this regard till the last day of month previous to the one in which proposals/applications are invited will have to be complied with by the Bidder.
  - II. **"Bidder"** (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
  - III. "Bidder from a country which shares a land border with India" for the purpose of this Order means:
    - a. An entity incorporated, established, or registered in such a country; or
    - b. A subsidiary of an entity incorporated, established, or registered in such a country; or
    - c. An entity substantially controlled through entities incorporated, established, or registered in such a country; or
    - d. An entity whose beneficial owner is situated in such a country; or
    - e. An Indian (or other) agent of such an entity; or
    - f. A natural person who is a citizen of such a country; or
    - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
  - IV. The beneficial owner for the purpose of (III) above will be as under:
    - a. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation-

- i. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company.
  - ii. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements,
- b. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership or entitlement to more than fifteen percent of capital or profits of the partnership,
  - c. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals.
  - d. Where no natural person is identified under (a) or (b) or (c) above, the beneficial owner is the relevant natural person who holds the position of senior managing official,

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<sup>1</sup> Provisions of this Clause will be applicable throughout this Bidding Document and will override anything mentioned in other parts of this Bidding Document that is at a deviation or in contradiction of this Clause (i.e., in other applicable provisions such as relating to Joint Venture/Consortium/Association, sub-contracting, etc.).

- e. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- f. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- g. The bidder shall be required to submit a Certificate as per Tech Form 11.

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

- 4.1. All bidders shall provide in Section 7, Forms of Bid and Qualification information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
- 4.2. All bidders shall include the following information and documents with their bids in Section 3, Qualification Information unless otherwise stated in the Appendix to ITB:
  - a. Copies of original documents defining the constitution (MoA, AoA and Certificate of Incorporation/Registration for companies registered under the Companies Act, 1956 or Companies Act, 2013; Partnership Deed for firms registered under Indian Partnership Act, 1932 or Limited Liability Partnership Act, 2008.) or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bid.
  - b. Total monetary value of similar works performed for each of the last Seven years.
  - c. Experience in works of a similar nature in last seven years, and details of works completed (with supporting proof as specified in the Bidding Document) or contractually committed with certificates from the concerned officer of the rank of Executive Engineer or equivalent;
  - d. Evidence of ownership of major items of construction equipment named in Clause 4.4.3 (a) of ITB or evidence of arrangement of possessing them on hire/lease/buying as defined therein.
  - e. Details of the technical personnel proposed to be employed for the Contract having the qualifications defined in Clause 4.4.3 (b) of ITB for the construction.
  - f. Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past seven years.
  - g. An undertaking that the bidder will be able to invest a minimum amount of up to the percentage (defined in the Appendix to ITB) of the contract price of works, during the implementation of the works,
  - h. Evidence of access to line(s) of credit and availability of other financial resources/ facilities (10 percent of the contract price) certified by banker (the certificate being not more than 3 months old).
  - i. Authority for the Employer to seek references from the Bidder's bankers,
  - j. Information regarding any litigation or arbitration during the last seven years in which the Bidder is involved, the parties concerned, the disputed amount, and the matter,
  - k. Bidders shall provide a declaration stating that they become ineligible if they are found corrupt and fraudulent for their malpractices as defined by Government in accordance with Clause 3.3 ITB.
  - l. The proposed methodology and program of design, construction, operation and maintenance, backed with equipment and material planning and deployment, duly supported with broad calculations and Quality Management/ Assurance Plan proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications and within the stipulated period of completion.

4.3. Bids from Single Bidder or Joint Venture (JV) or Consortium or Association

4.3.1. In case of Bids from Joint Venture (JV) or Consortium or Association:

- a. All members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. However, the prime responsibility and accountability will rest on the lead partner.
- b. The JV or Consortium or Association shall authorize (through Power of Attorney as per format prescribed at TECH FORM – 2B (1) the lead partner to conduct all business for and on behalf of any and all the members of the JV or Consortium or Association during the bidding process and, in the event the JV or Consortium or Association is awarded the Contract, during contract execution. The maximum number of members in a JV or Consortium or Association shall be 2 (Two), (i.e., the lead partner plus one member) and the share of the lead member in the JV or Consortium or Association shall not be less than 50%.
  - (i) All members of the JV or Consortium or Association put together should satisfy the conditions ITB 4.4.1(a) and 4.4.1(b) as specified under ITB.
- c. All members of Joint Venture (JV) or Consortium or Association shall enter into a Joint Venture Agreement/ Consortium Agreement/ Association Agreement as per format prescribed at TECH FORM – 2A: JV AGREEMENT. During the Contract period change of JV partner shall not be permitted without prior approval of the Competent Authority of SSCL.
- d. All payments will be made to the lead partner only.
- e. Bidders are encouraged to include Micro, Small and Medium Enterprises (MSMEs) in the delivery of the project. The Bidders are required to submit a MSME inclusion plan in their proposal.
- f. The members of the JV or Consortium or Association shall comply with the requirements stipulated at Clause 3.6 of the ITB.

4.4. **QUALIFICATIONS**

4.4.1. To qualify for award of the Contract, each bidder should have:

- a. Experience in last 7 years for having
  - i.) Construction of similar civil<sup>2</sup> works completed of at least 50% of estimated Cost.
  - ii.) Construction of at least one similar MLCP<sup>3</sup> works completed<sup>4</sup> with minimum 70 cars;  
(or)  
two similar MLCP works completed with minimum 50 cars
  - iii.) O&M of similar MLCP works for at least 6 months for minimum 50 cars.

<sup>2</sup> Similar Civil works” will mean Construction of Multi-storied building works (Residential/ Commercial/ Industrial) including electrical, fire-fighting and plumbing works in last Seven (7) years

<sup>3</sup> “Similar MLCP works” will mean design and implementation of construction works for MLCP with Electro-Mechanical automatic staking facility (vertical rotary/Puzzle/Multi-floor Fully Automated).

<sup>4</sup> Only those works will be considered as “completed”, for which either Completion Certificate for “Design and implementation of Construction Works” has been issued by the concerned Competent Authority clearly indicating completion of similar works till last day of month previous to the one in which applications are invited or 90% of the works are completed till last day of month previous to the one in which applications are invited, provided proof of receipt of payment and a certificate from the concerned employer to this effect is produced. Projects with at least Six (6) months of O&M experience shall be considered, provided proof of receipt of payment and a certificate from the concerned employer to this effect is produced.

**Note:** In case the similar completed works of the bidders happen to be completed in a JV or Consortium or Association, then the extent of work proportionate to the participation of the bidder in that JV or Consortium or Association will be considered.

- b. Average **annual financial turnover**<sup>5</sup> from Civil Works including MLCP projects (Construction and O&M) works should be **at least 30% of the estimated cost** during last 3 financial years (2019-20, 2020-21, 2021-2022) ended on **31<sup>st</sup> March** of the previous financial year to be supported by certificate by Chartered Accountant and Audited Annual Accounts for the said period.
  - c. The Net Worth<sup>6</sup> of the Bidder should be positive ending on **31<sup>st</sup> March** of the previous financial year. Certificate to this effect issued by registered statutory Chartered Accountant should be submitted along with the bid.
- 4.4.2. Each bidder must produce:
- a. Certificate of incorporation / registration, PAN Card, GST registration certificate of the firm,
  - b. Latest ESI, EPF and Group insurance registration certificates.
  - c. Details required as per Form in Section 7 – Forms of Bid and Section 3 – Qualification Information.
  - d. An affidavit that the information furnished with the bid documents is correct in all respects; and
  - e. Such other certificates as defined in the Appendix to ITB. Failure to produce the certificates shall make the bid non-responsive.
- 4.4.3. Each bidder must demonstrate:
- a. Availability for construction work, of the owned, key equipment/ machinery for construction of works and laboratory equipment required for to perform mandatory tests as specified in the Appendix to ITB.
  - b. Availability for construction work of technical personnel as stated in the Appendix to ITB.
  - c. Credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of not less than the amount specified in the Appendix to ITB.
- 4.4.4. The bidder must not have in his employment:
- a. The near relation (defined as first blood relations, and their spouses, of the bidder or the bidder's spouse) of persons listed in Appendix to ITB.
  - b. Without Government permission, any person who retired as gazetted officer within the last two years of the rank and from the departments listed in the Appendix to ITB.
- 4.5. Experience of works undertaken as sub-Contractor shall not be considered in determining the bidder's compliance with the qualifying criteria.
- 4.6. Bidders (JV put together) who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the Cost of Construction as per 13.1 (A) of ITB. The available bid capacity will be calculated as under:

Assessed Available Bid capacity =  $(A*N*M - B)$

Where,

<sup>5</sup> At 2021-22 price level. Financial turnover of previous years shall be given weightage @5% per year to bring them to the price level of the financial year in which bids are received. This will be applicable in ascertaining current value of projects executed in past 7 years, as per requirements specified in the Bidding Document

<sup>6</sup> Net worth is the difference between total assets and liabilities.

**A** = Maximum value of civil engineering works including MLCP Works executed in any one year during the last seven years (updated to the price level of the last year at the rate of 5 percent a year) 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 (period up to 6 months to be taken as half-year and more than 6 months as one year).  $M = 2.5$

**B** = Value, at the current price level, of existing commitments and on-going works to be completed during the period of completion of the works for which bids are invited.

**Note:**

- i. The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in Charge, not below the rank of an Executive Engineer or equivalent.
- ii. In the case of a JV or Consortium or Association, the above formula will be applied to each member to the extent of the proposed participation in the JV or Consortium or Association. If the proposed % participation is not mentioned, then equal participation will be assumed.

Example for calculation of bid capacity in case of JV or Consortium or Association

Suppose there are 'P' and 'Q' members of the JV or Consortium or Association with their participation as 70% and 30% respectively and available bid capacity of these members as per above formula individually works out 'X' and 'Y' respectively, then Bid Capacity of the JV or Consortium or Association shall be as under:

$$\text{Bid Capacity of the JV or Consortium or Association} = 0.7X + 0.3Y$$

- 4.7. Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:
- a. Made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirements; and/or
  - b. Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion or financial failures etc.
  - c. Participated in the previous bidding for the same work and had quoted unreasonably high or low bid prices and could not furnish rational justification for it to the Employer.

**5. One Bid Per Bidder**

Each bidder, either as a single applicant or as partner of any JV or Consortium or Association, shall submit only one bid for the work. A Bidder who submits more than one Bid will cause the bids 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 Visits**

- 7.1. The Bidder, at his own cost, responsibility, and risk, is encouraged to visit, examine and familiarize himself with the Site of Works and its surroundings including source of construction materials and obtain all information that may be necessary for preparing the Bid and entering



into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense. He may contact the person as given in the Appendix to ITB.

## **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 of ITB.
- i. Notice Inviting Tender
  - ii. Instructions to Bidders
  - iii. Document Checklist
  - iv. Qualification Information
  - v. Conditions of Contract (Part I General Conditions of Contract, and Contract Data; Part II Special Conditions of Contract)
  - vi. Scope of Work and Technical Specifications
  - vii. Drawings
  - viii. Forms of Bid
  - ix. Form for Letter of Acceptance
  - x. Form for Agreement
  - xi. Form for Issue of Notice to Proceed with the Work
  - xii. Form for Performance Bank Guarantee.
  - xiii. Form for EMD Bank Guarantee
- 8.2. Bid document can be downloaded from the website(s) mentioned under "List of Important Dates."
- 8.3. The Bidder shall be deemed to have carefully examined the Instructions, conditions of contract, contract data, forms, and drawings in the Bid Document. If bidder has any doubts/clarifications as to the meaning of any portion of the Conditions or the specifications he shall, before the last date for Submission of Pre-Bid Queries, set forth the particulars thereof and submit them to Authority/Employer in writing in order that such doubt may be removed or clarifications are provided. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to Clause 26 of the ITB, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be liable for rejection.

### **9. Pre-bid meeting & Clarification**

- 9.1. Bidders Queries
- 9.1.1. Any clarification regarding the RFP document and any other item related to this project can be submitted to Employer as per the submission mode and timelines mentioned in the Fact Sheet. The pre-bid queries should be submitted in excel sheet format, along with name and details of the organization submitting the queries.
- 9.1.2. Employer shall not be responsible for ensuring that the bidders' queries have been received by them. Any requests for clarifications post the indicated date and time shall not be entertained by Employer.
- 9.1.3. Bidders must submit their queries as per the format specified at FORMAT A: FORMAT OF SENDING PRE-BID QUERIES.
- 9.2. Responses to Pre-Bid Queries and Issue of Corrigendum
- 9.2.1. Employer will organize a pre-bid conference and will respond to any request for clarification or modification of the bidding documents. Employer shall formally respond to the pre-bid queries

after the pre-bid conference. No further clarifications shall be entertained after the date and time of submission of queries.

- 9.2.2. Employer shall endeavour to provide timely response to all queries. However, Employer makes no representation or warranty as to the completeness or accuracy of any response made in good faith. Employer does not undertake to answer all the queries that have been posed by the bidders.
- 9.2.3. Any modifications of the RFP Documents, which may become necessary as a result of the Pre-Bid Conference, shall be made by Employer exclusively through a corrigendum. Any such corrigendum shall be deemed to be incorporated into this RFP. However, in case of any such amendment, the bid submission date may be extended at the discretion of Employer.
- 9.2.4. Any corrigendum/notification issued by Employer, subsequent to issue of RFP, shall only be available/hosted on the website URL mentioned in the fact sheet. Any such corrigendum shall be deemed to be incorporated into this RFP.
- 9.2.5. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

#### **10. Amendment of Bidding Documents**

- 10.1. Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing corrigenda/addenda.
- 10.2. Any corrigendum or addendum thus issued shall be part of the bidding documents. The same shall be uploaded on the websites/web portals specified in the Bidding Document and no other communication will be made by the Employer to any bidder.
- 10.3. To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may extend, as necessary, the deadline for submission of bids, in accordance with **Clause 20 of ITB**.

### **C. PREPARATION OF BIDS**

#### **11. Language of Bid**

- 11.1. All documents relating to the Bid shall be in the language specified in the **APPENDIX TO INSTRUCTIONS TO BIDDERS (ITB)**.

#### **12. Documents Comprising the Bid**

12.1. The Bid submitted by the Bidder shall be in two separate parts:  
Part I This shall be named Technical Bid to be placed in a sealed envelope as per procedure specified in Clause 19 and shall comprise of:

- i. The Demand Draft for the Tender Fee placed in a separate cover, marked "**Tender Fee**",
- ii. Authorized Address and contact details of the bidder having the following information: Address of communication: Telephone No.(s): Office telephone no.: Mobile No.: Facsimile (Fax) No.: Electronic Mail Identification (E-mail ID).
- iii. Qualification information, supporting documents, affidavit and undertaking as specified in **Clause 4 of ITB**.
- iv. Undertaking that the bid shall remain valid for the period specified in clause **15 of ITB**.
- v. Any other information/documents required to be completed and submitted by bidders, as specified in the **APPENDIX TO INSTRUCTIONS TO BIDDERS (ITB)**
- vi. An affidavit affirming that information that has been furnished by the bidder in the bidding document is correct to the best of his knowledge and belief.

- vii. Power of Attorney by the firm in favour of the authorizing signatory for submitting the bid as per format prescribed at TECH FORM – 2B (2); In case of JV or Consortium or Association, Power of Attorney by the JV firm in favour of the lead partner authorizing the lead partner for submitting the bid as per format prescribed at TECH FORM – 2B (1).
- viii. MoU for JV or Consortium or Agreement, if applicable, as per the prescribed format.
- ix. The Technical Bid shall not include any financial information.

Part II. It shall be named Financial Bid to be placed in a sealed envelope as per procedure specified in Clause 19 and shall comprise of:

- i. Form of Bid as specified in Section 7, FIN FORM – 1: LETTER OF FINANCIAL BID.

12.2. Each part shall be separately sealed and marked in accordance with Sealing and Marking instructions in clause 19 of ITB.

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

SECTION	PARTICULARS
1.	Notice inviting Tender
2.	Instruction to the Bidders
3.	General Conditions of Contract and Special Conditions of Contract
4.	Contract Data
5.	Scope of Work and Technical Specifications
6.	Drawings

### 13. Bid Prices

13.1. The bidder shall submit the bid price as per the FIN FORM – 1: LETTER OF FINANCIAL BID, Section 7, Form of Bid towards the **total Cost of Construction for a) Office Complex; and (b) Mechanized Fully Automatic Multi Level Car Parking Facility along with 5 years of O&M, including defect liability period of 1 (One) year (as provided in 13.2 of ITB).**

13.2. The bidder shall have to quote price inclusive of GST, all duties, taxes, royalties and other levies. The amount of applicable GST will be paid separately to the contractor with each bill at the time of payment; and the Employer shall not be liable for any duties, taxes, royalties and levies.

13.3. The Contract prices quoted by the bidder shall be fixed for the duration of the Contract.

13.4. **Annual Guaranteed License fee:** The successful bidder shall be required to pay an annual guaranteed license fee to SSCL of INR Four (4) Lakhs in 1<sup>st</sup> year and escalated at 10% (Ten percent) every year during the O&M Period for MLCP. The Annual Guaranteed License fee shall be due and payable, in advance, within first 30 (Thirty) calendar days of each financial year. It is clarified that the payment of the first instalment of the Annual Guaranteed license fee period between commencement of Operations and last day of the Financial Year shall be payable on pro-rata basis.

### 14. Currencies of Bid

14.1. The prices shall be quoted by the bidder entirely in Indian Rupees (INR).

## 15. Bid Validity

- 15.1. Bids shall remain valid for a period of **180 days (one hundred and eighty days)** after the deadline date for bid submission specified in **Clause 20 of ITB**. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.
- 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. A bidder may refuse the request. 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 for a period of the extension, and in compliance with **Clause 16 of ITB** in all respects.

## 16. Bid Security / Earnest Money Deposit

- 16.1. The Bidder shall furnish, as part of the Bid, Earnest Money of the amount specified in the Appendix to ITB.
- 16.2. The Earnest Money shall, at the Bidder's option, be in the form of DD/FDR/BG of a nationalized bank or scheduled commercial bank, in favour of the name given in the Appendix to ITB. The DD/FDR/BG shall be valid for 180 days from the last date of receipt of bids. The BG for EMD should be in the format prescribed at FORMAT F: PERFORMANCE BANK GUARANTEE FORMAT. Other forms of Earnest Money acceptable to the Employer are stated in the Appendix to ITB.
- 16.3. Any bid not accompanied by an acceptable Earnest Money, unless exempted in terms given in the Appendix to ITB, shall be rejected by the Employer as non-responsive.
- 16.4. The Earnest Money of unsuccessful bidders will be returned within 28 days of the end of the Bid validity period specified in Clause 15.1 of ITB.
- 16.5. The Earnest Money of the successful Bidder will be discharged when the successful Bidder has signed the Agreement and furnished the required Performance Security.
- 16.6. The Earnest Money may be forfeited:
- a. if the Bidder withdraws the Bid after bid opening (technical bid) during the period of Bid validity;
  - b. in the case of a successful Bidder, if the Bidder fails within the specified time limit to
    - i. sign the Agreement; and/or
    - ii. Furnish the required Performance Security.
- 16.7. **Bid Security/ Earnest Money exemption:** Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organisation or the concerned Ministry or Department shall be exempted from the submission of bid security. The bidder is required to submit documentary evidence indicating its registration(s) with relevant Ministry or Department in this regard.

## 17. Alternative Proposals by Bidders

- 17.1. Bidders shall submit offers that comply with the requirements of the bidding documents, including the basic technical design as indicated in the drawings and specifications. Alternative proposals will be **rejected as non-responsive**.

## 18. Format and Signing of Bid

- 18.1. All pages of the Technical and Financial Bid shall be duly signed and sealed by the Bidder or authorized signatory on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the Bidding Document and shall be attached to the Bid.

- 18.2. The bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialled by the person signing the Tender.

#### 19. Sealing and Marking of Bids

- 19.1. The bidder shall **number, sign and seal** every page of the Bid.
- 19.2. If every page is not signed and sealed, the Bids may be liable for rejection.
- 19.3. The **Original Bids** (Technical Bid and Financial Bid) shall be prepared in indelible ink. Any corrections must be initialled by the person or persons who have been duly authorized. **Both the Technical Bid and Financial Bid shall be separately hard bound.** Any Bid that does not contain hard bound Technical Bid and Financial Bid (i.e., spiral bound Bids or Bids stitched by thread or loose pages put together by means of paper clips, etc.) shall be liable for rejection.
- 19.4. **Technical Bid**, including **original** and **one copy** shall be placed in a sealed envelope clearly marked “**Technical Bid**” and the **Original Financial Bid** in a sealed envelope clearly marked “**Financial Bid**” and warning: “**Do not open with the Technical Proposal.**” **Technical (Original & One Copy)** and **Financial (Original)** envelopes shall be placed into an **outer envelope and sealed**. This outer envelope shall bear the title “**Technical and Financial Proposal**”, sealed and clearly showing the name of the assignment and the address of the Bidder, so that it can be returned unopened in case of late or withdrawn bids.
- 19.5. In the event of any discrepancy between the original and the copy of Technical Proposal, the original shall prevail.
- 19.6. Any financial bid received in any other form apart from the above shall make the Bid liable for rejection.

### D. SUBMISSION OF BIDS

#### 20. Deadline for Submission of Bids

- 20.1. Bids consisting of **one (1) original plus one (1) copy of Technical Proposal** and **one (1) Original Financial Proposal** must be submitted in sealed envelope in the Tender Box maintained at the address and on or before the date and time as specified in the Appendix to Instructions to Bidders (ITB).
- 20.2. The Envelope must indicate the **name and address of the Bidder** to enable the Bid to be returned unopened in case it is declared as received after the due date and time or otherwise unacceptable.
- 20.3. In the event of the specified date for the submission of bids being declared a holiday for the Employer, the Bids will be received up to the specified time on the next working day.
- 20.4. The Employer *may extend the deadline for submission of bids* by issuing an amendment in accordance with **Clause 10.3 of ITB**, 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. The Bidders shall not be allowed to submit the Bids after the date & time of deadline for submission of Bids.

#### 22. Withdrawal, Substitution and Modification of Tender

- 22.1. A Bidder may withdraw, substitute, or modify its Tender only before the last date of submission.
- 22.2. A written Withdrawal/Substitutions/Modifications etc. Notice duly signed by the Bidder or his authorized representative and shall include a copy of the authorization. The corresponding

Withdrawal, Substitution or Modification of the Tender must accompany the respective written Notice.

- 22.3. All Notices must be received by the Employer prior to the deadline specified for submission of Tender in accordance with Clause 20 of the ITB.
- 22.4. No Withdrawal and/or Substitution and/or Modification are permitted after last date of submission. Withdrawal, Substitution, or modification of a Tender between the deadline for submission of Tender and the expiration of the original period of Tender validity specified in Clause 15.1 above or as extended pursuant to Clause 15.2 may result in the forfeiture of the Earnest Money Deposit pursuant to Clause 16 of ITB and the suspension of the Bidder for a period of one (1) year in all projects by Shillong Smart City Limited.

## E. BID OPENING AND EVALUATION

### 23. Bid Opening

- 23.1. The Employer will open the Technical Bids of all the Tenders received (*except those received late or withdrawn*), including modifications made pursuant to Clause 22, in the presence of the bidders or their representatives who choose to attend at the date, time and the place specified in respective Clause(s). In the event of the specified date of Tender opening being declared a holiday for the Employer, the Tenders will be opened at the appointed time and location on the next working day.
- 23.2. Bids which have been **“WITHDRAWN”** through notice of withdrawal (*pursuant to Clause 22 above*) shall be read out first.
- 23.3. The Bidder’s Names, the presence or absence of Tender Fee, Bid Security/ Earnest Money Deposit (amount, format and validity), the submission of qualification information and such other information as the Employer may consider appropriate will be announced by the Employer at the opening. Late and withdrawn Tenders will not be opened.
- 23.4. The Employer shall prepare minutes of the Tender opening, including the information disclosed to those present in accordance with Clause 23.3.
- 23.5. The Employer will evaluate and determine whether each tender
- meets the eligibility criteria defined in ITB Clause 3;
  - is accompanied by the required Tender Fee and Bid Security/ Earnest Money Deposit as per stipulations in ITB Clause 16; and
  - meets the minimum qualification criteria stipulated in ITB Clause 4.4. The Employer will draw out a list of qualified Tenderers.
- 23.6. Financial Bids shall be kept unopened until the time of opening of the Financial Bids. The date, time, and location of opening of the Financial Bids shall be intimated to the bidders who are found qualified. In the event of the specified date being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day through they or their representative, may attend the meeting of opening of financial bids.
- 23.7. At the time of the opening of the **“Financial Bid”**, only those bids found responsive and technically qualified will be opened. The remaining bids will not be opened. The responsive bidders’ names, the Bid prices, the total amount of each bid, and such other details as the Employer may consider appropriate will be announced by the Employer at the time of bid opening. Any Bid price, which is not read out and recorded, will not be considered in Bid Evaluation.
- 23.8. The Employer shall prepare the minutes of the opening of the **Financial Bids**.

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

- 24.1. Information relating to the examination, clarification, evaluation, and comparison of Tenders 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 Tenders or award decisions may result in the rejection of his Tender.

#### **25. Clarification of Bids and Contacting the Employer**

- 25.1. To assist in the examination and evaluation of Tenders, the Employer may, at his discretion, ask any bidder for clarification of his Technical Bid. The request for clarification and the response shall be in writing (letter/email). If a bidder does not provide clarifications of its Tender by the date and time set in the Employer's request for clarification, its Bid may be rejected by the Employer.
- 25.2. No Bidder shall contact the Employer on any matter relating to its bid from the time of the bid opening to the time the contract is awarded.
- 25.3. Any attempt by the bidder to influence the Employer's bid evaluation, bid comparison or contract award decision may result in the rejection of his 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 meets the eligibility criteria defined in Clauses 3 and 4,
  - Bid has been properly signed and sealed,
  - Bid is accompanied by the required Tender Fee and Bid Security/ Earnest Money Deposit; and
  - Bid is responsive to the requirements of the bidding documents.
- 26.2. During the detailed evaluation of the "**Financial Bids**", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., technical specifications, and drawings.
- 26.3. A responsive "Financial Bid" is one that conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one
- which affects in any substantial way the scope, quality, or performance of the Works,
  - which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights, or the Bidder's obligations under the Contract; or
  - whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 26.4. 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 nonconforming deviation or reservation.

#### **27. Correction of Errors**

- 27.1. Tenders determined to be responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
- If a discrepancy is found in the price written in figures and words, the quoted rate either in figure or word which corresponds with the amount worked out by the Contractor shall unless otherwise proved be taken as correct.
  - If the amount of an item is not worked out by the Contractor or it does not correspond with the rates written either in figures or in words, then the rates quoted by the Contractor in words shall be taken as correct.

- c. Where the rates quoted by the Contractor in figures and in words tally, but the amount is not worked out correctly, the rates quoted in figures by the Contractor will unless otherwise proved be taken as correct and not the amount.
  - d. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the Contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.
- 27.2. The amount stated in the Tender will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the bidder, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount, the Tender will be rejected, and necessary action in accordance with Clause 22 of ITB may be taken by the Employer.

## 28. Evaluation and Comparison of Bids

- 28.1. The Employer will evaluate and compare only the bids determined to be responsive in accordance with Clause 26 of ITB. Evaluation will be carried out in accordance with the criteria as specified in the Clause 30 of ITB.
- 28.2. In evaluating the bids, the Employer will determine for each Bid the evaluated Bid price by adjusting the Bid price by making correction, if any, for errors pursuant to **Clause 27 of ITB**.
- 28.3. In case the Bid of the successful Bidder is "Abnormally Low Bid", i.e. a Bid in which the bid price, in combination with other elements of the Bid, appears so low that raises material concerns as to the capability of the bidder to perform the contract at the offered price, the Employer may in such cases seek written clarifications from the bidder, including detailed price analyses of its bid price in relation to scope, schedule, allocation of risks and responsibilities, and any other requirements of the bids document. If, after evaluating the price analyses, the Employer determines that the bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Employer may reject the bid.

## 29. Price Preference

- 29.1. There will be no price preference to any bidder.

## F. AWARD OF CONTRACT

### 30. Award Criteria

- 30.1. Subject to Clause 32 of ITB, the Employer will award the Contract to the Bidder on the following basis:
  - 30.1.1. The bidder will be initially evaluated for Minimum Eligibility Criteria, which are mandatory to qualify. Bidders who do not qualify will be summarily rejected and will not be further evaluated. The bidder who qualifies **Minimum Eligibility Criteria** will be further evaluated for **Technical Scores (TS)**. The bidders who qualify the Minimum **Technical Score of 70** as per criteria specified in Appendix to ITB will be finally qualified. The Financial Bids of technically qualified bidders will only be opened.
  - 30.1.2. Method of selection and determination of successful financial bid as specified in Appendix to ITB.

### 31. Employer's Right to Accept any Bid and to Reject any or all Bids

- 31.1. Notwithstanding Clause 30 above, the Employer reserves the right to accept or reject any or all the Bids, and to cancel the bidding process and reject all bids, at any time prior to the award of



Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Employer's action.

- 31.2. The employers have right to accept any bid or to reject any or all bids without assigning a reason for that.

### 32. Notification of Award and Signing of Agreement

- 32.1. 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 letter/email. This letter (hereinafter and in the **Part I General Conditions of Contract** called the "**Letter of Acceptance**") will state the sum that the Employer will pay to the Contractor in consideration of the execution, completion by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "**Contract Price**").
- 32.2. The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 33 of ITB.
- 32.3. The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and the successful Bidder after the performance security is furnished.
- 32.4. Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

### 33. Performance Security

- 33.1. Within **10 (ten) days** after receipt of the **Letter of Acceptance**, the successful Bidder shall deliver to the Employer a **Performance Security towards Construction of Works of three percent (3%)** of the Contract Price. Further, post completion of Construction Works (MLCP and Office Complex) and before release of Performance Security towards Construction of Works, the Contractor shall submit another **Performance Security towards Operation & Maintenance Works of two percent (2%)** of total Contract Price. The period of these Performance Securities will be as specified in Clause 42 and 45 of General Conditions of Contract.
- 33.2. The Performance Security shall be either in the form of a Bank Guarantee or Fixed Deposit Receipts, in favour of Chief Executive Officer, Shillong Smart City Limited payable at Shillong, Meghalaya, from a Nationalized Bank or Scheduled Commercial Bank in the format prescribed at FORMAT F: PERFORMANCE BANK GUARANTEEFORMAT .
- 33.3. Failure of the successful Bidder to comply with the requirements of Clause 33.1 shall constitute sufficient grounds for cancellation of the award and suspension of the Bidder for a period of one (1) year in all projects by the Shillong Smart City Limited.

### 34. Advances

- 34.1. The Employer will provide mobilization advances and advance against security of equipment as provided in Clause 44 of *Part I of the General Conditions of Contract*.

### 35. Corrupt or Fraudulent Practices

- 35.1. The Employer requires the bidders/Contractors to strictly observe the laws against fraud and corruption in force in India, namely, *Prevention of Corruption Act, 1988*.
- 35.2. The Bidder shall furnish an Integrity Pact as per Tech Form 11.

## APPENDIX TO INSTRUCTIONS TO BIDDERS (ITB)

<b>Instructions to Bidders Clause Reference</b>					
(1.1)	The Employer is <b>Shillong Smart City Limited (SSCL)</b> Represented by the <b>Chief Executive Officer (CEO)</b>				
(3.2)	The eligible bidders are: <i>All bidders registered with Central/State Government Ministries/Departments/Organizations and meeting the qualification given in GCC 4.4.1.</i>				
(4.2) (g)	The percentage is <b>Ten</b>				
(4.4.2) I	Other certificates required with the bid are: None				
(4.4.3) (a)	A) The key equipment/machinery for construction of works shall be:				
	S.No.	Name of the Equipment	Capacity	Unit	Minimum Required (Evidence of Ownership to be furnished)
					Owned / Leased/Hired
	1.	Excavator cum Loader	Minimum size Bucket 0.3 cum/shovel 1.0 cum, Capacity 75cum/hr	Nos	1
	2.	Concrete Mixer	Minimum 450 litre, (10/7) Concrete Mixer with Mechanical Hopper and digital weigh batch load cell base weighing system with automatic water meter	Nos	1
	3.	Truck mounted Transit Mixer	4-6 Cum	Nos	2
	4.	Concrete Breaker	Heavy duty, minimum impact energy 62J @ 1000bpm, 28mm internal hexagonal tool holder	Nos	1
	5.	Concrete Vibrator	25mm concrete vibrator needle (electric)	Nos	1
	6.	Water Pumps and Mud pumps	Minimum 5 HP capacity	Nos	2
	7.	Reinforcement cutting and Bending Machine		Nos	1
	8.	Welding Machine		Nos	1
	9.	Water Tankers	2,000 liters	Nos	2
	10.	Trucks/ Tippers	Minimum 7.5 cum capacity	Nos	3
	11.	Safety Equipment for personnel	As per legal requirement	Nos.	As Required
12.	Total station survey equipment set		Nos.	1	
13.	Generator of suitable capacity		Nos.	1	

14.	Laboratory apparatus & equipment as per MoRTH Standard		Nos.	As required
15.	Hoisting Crane upto 36 M height		Nos.	1
16.	Bar bending & cutting machine		Nos.	1
17.	Electrical Testing Kit (Megger, Voltmeter etc. of Various ranges)		Nos.	As required

B) Equipment for testing of materials & concrete at site laboratory (to be established at a location within the limit of Shillong Municipal Board)

(Note: The number of laboratory equipment however as per requirement it can be increased)

All necessary equipment for conducting all necessary tests shall be provided at the site laboratory by the contractor at his own cost. The following minimum laboratory equipment shall be set up at site office (land is to be arranged by the Contractor) laboratory:

S.No.	Name of the Laboratory Equipment	Minimum numbers required
1.	Cube testing machine	01 No
2.	Slump Cone	01 No
3.	Vicats apparatus with Desk Pot	01 No
4.	Megger & earth resistance tester	01 No
5.	Pumps and Pressure gauges for hydraulic testing of pipes	02 Nos
6.	Weighing scale platform type 100 Kg capacity	02 Nos
7.	Graduated glass cylinder	As per requirement
8.	Sets of sieves for coarse aggregate [40; 20;10;4.75mm]	04 Nos
9.	Sets of sieves for fine aggregate [4.75;2.36;1.18;600;300 & 150 micron]	04 Nos
10.	Core cutter for soil compaction with accessories	02 Nos
11.	Cube mould size 70mm X 70mm X 70mm	18 Nos
12.	Cube mould size 150mmX150mmX150mm	60 Nos
13.	Moisture Content Rapid moisture meter standard	04 Nos
14.	Hot Air Oven Temp. Range 50°C to 300°C	02 Nos
15.	Electronic balance 600g x 0.01g. 10kg and 50kg	03 Nos
16.	Physical balance weight upto 5 kg	01 No
17.	Digital Thermometer upto 150°C	02 Nos
18.	Poker Thermometer (Concrete Road) 0°C to 50°C &150°C	02 Nos. Each
19.	Measuring Jars 100ml,200ml,500ml	02 Nos. set of each size
20.	Gauging trowels 100mm & 200mm with wooden handle	04 Nos

21.	Spatula 100mm & 200mm with long blade wooden handle	02 Nos. each size
22.	Vernier callipers 12" and 6" sizes	02 Nos. each
23.	Digital PH motor least count .01mm	01 No
24.	Digital Micrometre least count of .01mm	01 No
25.	Digital paint thickness meter for steel 500-micron range	02 Nos
26.	GI tray 600 x450x50mm., 450x300x40mm, 300x250x40mm	02 Nos. each
27.	Electric Mortar mixer 0.25 CUM capacity	01 No
28.	Water testing Kit	02 Nos
29.	Aggregate impact value testing machine with blow counter	As per Requirement
30.	Crushing value apparatus	As per Requirement
31.	Thickness gauge for measuring flakiness index	As per Requirement
32.	Elongation gauge	As per Requirement
33.	Measuring Cylinder 3,5,10 & 15 Litre cylinder	As per Requirement
34.	Pycnometer	02 Nos
35.	Motorized Sieve shaker	02 Nos
36.	Any other equipment for site tests as outlined in BIS and as directed by the Engineer.	

All relevant IS codes, CPWD manual, specifications, schedule of rates, etc in hard as well as soft copy shall be made available at site by the Contractor at his own cost.

SN	Position	Minimum Number of Staff	Minimum Qualification	Total Work Experience (years)
1	Project Manager	1	B. E (Civil/ Electrical/ Mechanical) with 15 years of experience or B.E. with M. Tech in Structure/ Electrical/ Mechanical Engineering with 10 years of experience in Construction of Multi-Storied Buildings/ MLCP after post-graduation	15 or 10 as specified
2	Deputy Project Manager Cum Civil/ Utility/ Planning Engineer	1	B. E (Civil/ Electrical/ Mechanical) with 10 years of experience or B.E. with M. Tech in Structure/ Electrical/ Mechanical Engineering with 7 years of experience in Planning of Construction of Multi-Storied Buildings/ MLCP projects after post-graduation	7 or 10 as specified
3	Quality Control/ Material Engineer	1	Degree with 5 years of experience or Diploma in Civil Engineering with 7 years of experience in Quality Control	5 or 7 as specified

				or Quality Management in construction works	
	4	Electrical Engineer	1	Degree with 5 years of experience or Diploma in Electrical Engineering with 7 years of experience in MLCP/ building works	5 or 7 as specified
	5	Quantity Surveyor	1	Degree with 3 years of experience/ Diploma with 5 years of experience in Civil/ Mechanical Engineering	3 or 5 as specified
	6	Environment, Health and Safety Engineer	1	Degree with 3 years of experience/ Diploma with 5 years of experience in Safety/ work safety	3 or 5 as specified
	<p>The Bidders may add additional manpower as per requirement. CVs for the above positions will be evaluated as per criteria given in this Appendix to ITB.</p>				
(4.4.3) I	The minimum amount of credit facilities net of other contractual commitments of the successful Bidder shall be 10% of the contract price.				
(4.4.4) (a)	<p>The bidder must produce an affidavit stating that the near relations of the following departmental officers are not in his employment: Any staffs under SSCL, DUA and all Authorities/Agencies under its jurisdiction or control.</p>				
(4.4.4) (b)	<p>The bidder must produce an affidavit stating that no retired gazetted officer is in employment who retired within the last two years (starting from the date of submission of Bids) from the departments listed below: DUA (Department of Urban Affairs, Govt. Of Meghalaya), Public Works Department (PWD) and all Authorities/Agencies under its jurisdiction or control, MUDA, SMB, SSCL and the PMC for Shillong Smart City Limited. In case there is no such person in his employment, his affidavit should clearly state this fact.</p>				
(4.6)	M=2.5				
(7.1)	<p>The contact person is: <b>Chief Executive Officer (CEO)</b> <b>Shillong Smart City Limited</b> <b>House No. C/B-037, Top Floor,</b> <b>Centre Nongrim Hills, Near JJ Cables, Shillong,</b> <b>East Khasi Hills District, Meghalaya – 793003</b></p>				
(11.1)	Language of the bid is: English				
(12.1) (v)	The other documents required are: NONE				
(16.1)	The amount of Earnest Money Deposit: Rs. 40.60 Lakhs (Rupees Forty Lakh and Sixty Thousand Only) plus GST				
(20.1)	<p>Deadlines for submission of bids shall be: Date: 22/12/2022 Time: 15:00 Hrs.</p>				
(30.1.1)	<p>Evaluation and Qualification Criteria. A. Technical Evaluation Criteria: Criteria, sub-criteria and point system for evaluation to be followed under this procedure is as under:</p>				

	<b>i)</b>	<b>Specific experience of the bidder relevant to the assignment / job</b>	<b>50 marks</b>
	a)	<p>Experience in similar “MLCP works” for Design &amp; construction/ implementation in last 7 years (Max. 7.5 mark per project subject to total max. 15 marks)</p> <ul style="list-style-type: none"> <li>Completed MLCP similar works with ECS between 50 to 75: 5 marks per project</li> <li>Completed MLCP similar with ECS above 75: 7.5 marks per project</li> </ul>	15 marks
	b)	<p>O&amp;M of similar MLCP works for minimum 50 ECS with any state/ central government/ Pvt. Sector in last 7 years (2.5 marks per project subject to maximum 5 marks)</p>	5 marks
	c)	<p>Experience of similar “Civil works” in last 7 years (Max. 10 mark per project subject to total max. 30 marks)</p> <ul style="list-style-type: none"> <li>Completed similar works with value of 100% of estimated cost or more: 10 marks each project</li> <li>Completed similar works with value of 70% to 99% of estimated cost: 7.5 marks each project</li> <li>Completed similar works with value of 50% to 69% of estimated cost: 5 marks each project</li> </ul>	30 marks
	<b>ii)</b>	<b>Valid Class-I registration with PWD, Meghalaya</b>	<b>05 marks</b>
	<b>iii)</b>	<b>Financial capacity of the bidder</b>	<b>10 marks</b>
		<p>Average annual Turn Over from executed Civil Works including MLCP projects (Construction and O&amp;M) for last 3 years.</p> <ul style="list-style-type: none"> <li>Between 30%-70% of project estimated Cost: 5 marks</li> <li>Between 70%-100% of project estimated Cost: 7.5 marks</li> <li>Above 100% of project estimated Cost: 10 marks</li> </ul>	10 marks
	<b>iv)</b>	<b>Proposed methodology and work plan in response to the terms of reference.</b>	<b>20 marks</b>
		Sub-criteria	
	a)	<p>Technical approach, design &amp; and methodology of the Project (presentation) Evaluation parameters include, inter-alia:</p> <ol style="list-style-type: none"> <li>Design configuration/ Matrix wrt ECS and Area Utilization (2 Marks)</li> <li>Conceptual planning, Design, Features &amp; architectural layouts of the facilities. (3 Marks)</li> <li>Design attractiveness: Aesthetics, façade, Environment friendliness, energy efficiency. (2 Marks)</li> <li>Contingency plans: safety &amp; disaster management plans (1 Marks)</li> <li>Sequencing and activity time schedule. (2 Marks)</li> <li>Detailed methodology for construction. (3 Marks)</li> </ol>	15 marks

	vii. Detailed methodology for operation and maintenance (2 Marks)	
b)	Work plan	2.5 marks
c)	Staffing Schedule	2.5 marks

**iv) Key professional staff: Qualification & competency for the assignment / job.**

Details of manpower on payroll of the bidder for the past 1 year till the last day of month before the one in which applications are invited. Minimum qualification will be as specified in the Appendix to ITB. The bidder will provide an undertaking supporting the same.

S.No.	Position	15 marks	Marking criteria
1	Project Manager	4	Total marks: 4 Educational qualification: 2 Post-graduation: 2 Graduation: 1 Professional experience: 2 >15 years: 2 >=12 years to 15 years: 1 Experience in similar region: 1
2	Civil cum Utility/ Planning Engineer	3	Total marks: 3 Educational qualification: 1.5 Post-graduation: 1.5 Graduation: 1 Professional experience: 1.5 >10 years: 1.5 >=7 years to 10 years: 1
3	Quality Control/ Material Engineer	2	Total marks: 2 Educational qualification: 1 Graduation: 1 Diploma: 0.5 Professional experience: 1 >7 years: 1 >=5 years to 7 years: 0.5
4	Electrical Engineer	2	Total marks: 2 Educational qualification: 1 Graduation: 1 Diploma: 0.5 Professional experience: 1 >7 years: 1 >=5 years to 7 years: 0.5
5	Quantity Surveyor	2	Total marks: 2 Educational qualification: 1 Graduation: 1 Diploma: 0.5 Professional experience: 1 >7 years: 1 >=5 years to 7 years: 0.5
6	Environment, Health and Safety Engineer	2	Total marks: 2 Educational qualification: 1 Graduation: 1 Diploma: 0.5 Professional experience: 1

			>7 years: 1 >=5 years to 7 years: 0.5
	For evaluation of each of the key professionals the following sub-criteria shall be followed		
	a)	Educational qualifications	20%
	b)	Adequacy for the assignment / job (Experience in carrying out similar assignment/job)	70%
	c)	Experience in similar region	10%
(30.1.2)	<p>Method of selection shall be <b>Least Cost Selection (LCS)</b>.</p> <p>The bid with least Bid Price quoted towards <b>the total Cost of Construction</b> as per the Template for Financial Bid given in FIN FORM, Section 7 <b>shall be the winning bid</b>.</p> <p><b>Note:</b> In case the lowest amount amongst the financial bids between two or more bidders amounts to same, then the bidder with highest technical score as per <b>clause 30.1.1 of ITB shall be the winning bidder</b>.</p>		

Signature of Employer / Authorized Signatory

Date:



## SECTION 3

### QUALIFICATION INFORMATION

The information to be filled in by bidders in the following pages will be used for evaluation as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract. Attach additional pages, as necessary.

- 1.1 Constitution or legal status of Tenderer, Place of Registration, Principal place of business and other details in the format provided as Bidder information sheet at **Tech Form 2**.
- 1.2 **Financial reports** for the last three years: balance sheets, profit and loss statements, auditors' reports, etc. duly certified by registered statutory Chartered Accountant shall be submitted. In addition, the summarized financial information in the format provided at **Tech Form 3A**. Also, **Tech Form 3B certified** by Chartered Accountant to show Average Annual Turnover from MLCP Projects (including O&M).
- 1.3 Evidence of access to lines of credit, etc. will be provided in the format provided at **Tech Form 4B**.
- 1.4 Solvency certificate will be provided in the format provided at **Tech Form 4C**
- 1.5 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.
- 1.6 Information on **on-going works** that are yet to be completed as on the date of this Tender in the format provided at **Tech Form 5**.
- 1.7 Bidder's experience of execution of the similar works (MLCP construction/ O&M works) in the **Last Seven years (in Rs. Lakhs)** in the format provided at **Tech Form 7**. Separate forms for each of the member, if in JV/ Association/Consortium.
- 1.8 Details of the specific project/ work performed as **Lead Contractor** (in the same name) on works of similar nature over during the Seven years specified in **1.7** above in the format provided at **Tech Form 7A**.
- 1.9 The **Proposed Approach & Methodology** and **program of construction**, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones in the format provided at **Tech Form 8 (A-D)**.
- 1.10 The equipment specified in **Clause 4.4.3 (a)** of the ITB are considered essential for successfully carrying out the works. The Tenderer should furnish the information in the format provided at **Tech Form 8E**.
- 1.11 Information on current litigation in which the bidder is involved in the format provided at **Tech Form 9**.
- 1.12 Undertaking cum certificate as specified in Clause 3.6 of ITB to be provided in the format provided at Tech Form 12.

**SECTION 4**  
**PART I GENERAL CONDITIONS OF CONTRACT (GCC)**

## A. GENERAL

### 1. Definitions

1.1. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:

- i. **Compensation Events** are those defined in **Clause 39** hereunder.
- ii. The **Completion Date** is the date of completion of the Works as certified by the **Engineer**, in accordance with **Clause 47.1 of GCC**.
- iii. The **Contract** is the Contract between the Employer and the Contractor to design, built (construct), operate/ maintain and transfer the Works. It consists of the documents listed in **Clause 2.3**.
- iv. The **Contract Data** defines the documents and other information, which comprise the Contract.
- v. The **Contractor** is a person or corporate body or a Joint Venture who's Bid to carry out the Works, including routine maintenance, has been accepted by the Employer.
- vi. The **Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer.
- vii. The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.
- viii. **Days** are calendar days; months are calendar months.
- ix. A **Defect** is any part of the Works not completed in accordance with the Contract.
- x. The **Defects Liability Certificate** is the certificate issued by **Engineer**, after the Defect Liability Period has ended and upon correction of Defects by the Contractor.
- xi. The **Defects Liability Period** is one year calculated from the Completion Date.
- xii. **Drawings** include calculations and other information provided or approved by the Engineer for the execution of the Contract.
- xiii. The **Employer** is the party as defined in the **Contract Data**, who employs the Contractor to carry out the Works. The Employer may delegate any or all functions to a person or body nominated by him for specified functions.
- xiv. The **Engineer** is the Employer or his authorized representative.
- xv. **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- xvi. The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.
- xvii. The **Intended Completion Date** is as specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time.
- xviii. **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- xix. **The Site** is the area defined as such in the Contract Data.
- xx. **Site Investigation Reports** are those that were included in the bidding documents and are reports about the surface and subsurface conditions at the Site.
- xxi. **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.
- xxii. The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

- xxiii. A **Sub-Contractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the construction work in the Contract, which includes work on the Site.
- xxiv. **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- xxv. A **Variation** is an instruction given by the Engineer, which varies the Works.
- xxvi. The **Works**, as defined in the Contract Data, are what the Contract requires the Contractor to design, construct, install, maintain, and turn over to the Employer. Routine maintenance is defined separately.
- xxvii. **Plant** is any integral part of the Works that shall have a mechanical, electrical, electronic, chemical, or biological function.

## **2. Interpretation**

- 2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about these Conditions of Contract.
- 2.2 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
  - i. Agreement,
  - ii. Notice to Proceed with the Work,
  - iii. Letter of Acceptance,
  - iv. Contractor's Bid,
  - v. Contract Data,
  - vi. Special Conditions of Contract Part II,
  - vii. General Conditions of Contract Part I,
  - viii. Scope of Work and Technical Specifications,
  - ix. Drawings, and
  - x. Any other document listed in the Contract Data.

## **3. Language and Law**

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

## **4. Engineer's Decisions**

- 4.1. Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer. However, if the Engineer is required under the rules and regulations and orders of the Employer to obtain approval of some other authorities for specific actions, he will so obtain the approval.
- 4.2. Except as expressly stated in the Contract, the Engineer shall not have any authority to relieve the Contractor of any of his obligations under the contract.

## **5. Delegation**

- 5.1. The Engineer, with the approval of the Employer, may delegate any of his duties and responsibilities to other people, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

## **6. Communications**

- 6.1. All Certificate, notices, or instructions to be given to the Contractor by Employer / Engineer shall be sent on the address or contact details given by the Contractor in Section 7 - Form of Bid. The address and contact details for communication with the Employer/ Engineer shall be as per the details given Contract Data to GCC. Communications between parties that are referred to in the conditions shall be in writing. The Notice sent by Facsimile (fax) or other electronic means shall be effective on confirmation of the transmission. The Notice sent by Registered post or Speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service.

## **7. Subcontracting**

- 7.1. No sub-contracting is allowed.

## **8. Other Contractors**

- 8.1. The Contractor shall co-operate and share the site with other Contractors. Public authorities' utilities, and the Employer between the dates given in the schedule of other Contractors, as referred to in the contract data. The Contractor shall also provide facilities and services for them as described in the schedule. The Employer may modify the schedule of other Contractor and shall notify the Contractor of any such modification.
- 8.2. The Contractor should take up the work in convenient reaches as decided by the Engineer to ensure there is least hindrance to the smooth flow of traffic including movement of vehicles and equipment of other Contractors till the completion of the works.

## **9. Personnel**

- 9.1. The Contractor shall employ for the construction work and routine maintenance the technical personnel named in the Appendix to ITB or other technical persons approved by the Engineer. The Engineer will approve any proposed replacement of technical personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel stated in the Contract Data.
- 9.2. If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the Works in the Contract.
- 9.3. The Contractor shall not employ any retired Gazetted officer who has worked in the Engineering Department of the State Government and has either not completed two years after the date of retirement or has not obtained State Government's permission to employment with the Contractor.

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

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

## **11. Employer's Risks**

- 11.1. The Employer is responsible for the excepted risks which are a) provide hindrance/encumbrance free site; and (b) financing the project.

## **12. Contractor's Risks**

- 12.1. All other risks not covered under Clause 11.1 are the Contractor's risks.

### **13. Insurance**

- 13.1. The Contractor at his cost shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the date of completion, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:
- a. loss of or damage to the Works, Plant and Materials,
  - b. loss of or damage to Equipment,
  - c. loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
  - d. Personal injury or death.
- 13.2. Insurance policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the completion date/ Start Date. All such insurance shall provide for compensation to be payable in Indian Rupees to rectify the loss or damage incurred.
- 13.3. The Contractor at his cost shall also provide, in the joint names of the Employer and the Contractor, insurance cover from the date of completion to the end of defect liability period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:
- a. Personal injury or death.
  - b. Insurance policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the completion date/ start date. All such insurance shall provide for compensation to be payable in Indian Rupees.
- 13.4. Alterations to the terms of insurance shall not be made without the approval of the Engineer.
- 13.5. Both parties shall comply with any conditions of the insurance policies.

### **14. Site Investigation Reports**

- 14.1. The Contractor, in preparing the Bid, may rely on any Site Investigation Reports referred to in the Contract Data, supplemented by any other information available to him, before submitting the bid.

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

- 15.1. The Engineer will clarify queries on the Contract Data.

### **16. Contractor to Design and Construct of the Works**

- 16.1. The Contractor shall develop the design and drawings in conformity with the Scope of project and Specifications and Standards.
- 16.2. In respect of the Contractor's obligations with respect to the design and Drawings of the Project, the following shall apply:
- (a) The Contractor shall prepare and submit, with reasonable promptness and in such sequence as is consistent with the Project Completion Schedule, three copies each of the duly certified design and Drawings along with supporting data, to the Engineer-in charge for review.
  - (b) by submitting the Drawings for review to the Engineer, the Contractor shall be deemed to have represented that it has determined and verified that the design and engineering, including field construction criteria related thereto, are in conformity with the Scope of the Project, the Specifications and Standards and the Applicable Laws;
  - (c) within 21 (twenty-one) days of the receipt of the Drawings, the Engineer shall review the same and convey its observations to the Contractor with reference to their conformity or otherwise with the Scope of the Project and the Specifications and Standards. The Contractor shall not be obliged to await the observations of the Engineer on the Drawings

submitted pursuant hereto beyond the said period of 21 (twenty-one) days and may begin or continue Works at its own discretion and risk;

- (d) if the aforesaid observations of the Engineer indicate that the Drawings are not in conformity with the Scope of the Project or the Specifications and Standards, such Drawings shall be revised by the Contractor in conformity with the provisions of this Agreement and resubmitted to the Engineer for review. The Engineer shall give its observations, if any, within 15 (fifteen) days of receipt of the revised Drawings. In the event the Contractor fails to revise and resubmit such Drawings to the Engineer for review as aforesaid, the Engineer may withhold the payment for the affected works in accordance with the provisions of Clause 38.8. If the Contractor disputes any decision, direction, or determination of the Engineer hereunder, the Dispute shall be resolved in accordance with the Dispute Resolution Procedure;
  - (e) no review and/or observation of the Engineer and/or its failure to review and/or convey its observations on any Drawings shall relieve the Contractor of its obligations and liabilities under this Agreement in any manner nor shall the Engineer or the Employer be liable for the same in any manner; and if errors, omissions, ambiguities, inconsistencies, inadequacies or other Defects are found in the Drawings, they and the construction works shall be corrected at the Contractor's cost;
  - (f) the Contractor shall be responsible for delays in submitting the Drawing caused by reason of delays in surveys and field investigations, and shall not be entitled to seek any relief in that regard from the Employer; and
  - (g) the Contractor warrants that its designers, including any third parties engaged by it, shall have the required experience and capability in accordance with Good Industry Practice and it shall indemnify the Employer against any damage, expense, liability, loss or claim, which the Employer might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and/or warranty set out in this Clause.
- 16.3. The Contractor shall construct and install the Works in accordance with the Drawings provided by the Contractor in accordance with the provisions of this Clause 16.1 and the observations of the Engineer thereon as communicated pursuant to the provisions of Clause 16.2 (d).
- 16.4. The Contractor shall construct the works by using the equipment as specified (but not limited to) in the Appendix to ITB to ensure the quality of works as per specifications.

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

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

#### **18. Approval by the Engineer**

- 18.1. The Contractor shall be responsible for Design, Drawings shall be developed in conformity with the Specifications and Standards for works including Temporary works. The same shall be approved by Engineer in Charge.
- 18.2. The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 18.3. The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
- 18.4. All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.
- 18.5. Quality assurance and Quality Control (QA & QC) plan shall be submitted before the dispatch of the material from the works for the approval of the Engineer.

- 18.6. Approval of all sources of material for Works shall be obtained in writing from the Engineer in Charge before their use on the project.
- 18.7. Samples of cement, sand, aggregate, bricks, steel, and any other material to be used in permanent works of the contract shall be submitted for the approval of the Engineer.

**19. Safety**

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

**20. Discoveries**

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

**21. Possession of the Site**

- 21.1. The Employer shall handover complete or part possession of the site to the Contractor 7 days in advance of construction program. At the start of the work, the Employer shall handover the possession of at-least 50% of the site.

**22. Access to the Site**

- 22.1. The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the engineer and any person/persons/agency authorized by:
- a. The Engineer
  - b. The Employer
  - c. The Ministry of Housing and Urban Affairs, Government of India.
  - d. Department of Urban Affairs (DUA), Govt. of Meghalaya;
  - e. Shillong Municipal Board (SMB)
  - f. Project Management Consultant for Shillong Smart City project
  - g. Any other person/agency authorised by the Employer.

**23. Instructions**

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

**24. Dispute Redressal System**

- 24.1. If any dispute or difference of any kind what-so-ever shall arise in connection with or arising out of this Contract or the execution of Works, whether before its commencement or during the progress of Works or after the termination, abandonment or breach of the Contract, it shall, in the first instance, be referred for settlement to the Competent Authority (As appointed by Urban Affairs Department, Government of Meghalaya). The Competent Authority shall, within a period of forty-five days after being requested in writing by the Contractor to do so, convey his decision to the Contractor. Such decision in respect of every matter so referred shall, subject to review as hereinafter provided, be final and binding upon the Contractor. In case the Works is already in progress, the Contractor shall proceed with the execution of the Works, including maintenance thereof if applicable, pending receipt of the decision of the competent authority as aforesaid, with all due diligence.
- 24.2. Either party will have the right of appeal, against the decision of the Competent Authority, to the Court of Law in Shillong, Meghalaya, India, if the amount appealed exceeds 5% of the contract price.



## **25. Procedure for Resolution of Disputes**

- 25.1. The Competent Authority mentioned in clause 24.1 shall give a decision in writing within 45 days of receipt of a notification of a dispute.
- 25.2. Either party may refer a decision of the Competent Authority to a Court of Law in Shillong, Meghalaya, India within 28 days of the Competent Authority's written decision.
- 25.3. Performance under the contract shall continue even after reference to the Court of Law and payments due to the Contractor by the Employer shall not be withheld unless they are the subject matter of the Court proceedings.

## **B. TIME CONTROL**

### **26. Programme**

- 26.1. Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works, along with monthly cash flow forecasts for the construction of works.
- 26.2. The Contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/ equipment being placed in field laboratory and the location of field laboratory along with the Program. The Engineer shall cause these details to be verified at each appropriate stage of the program.
- 26.3. An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.
- 26.4. The Contractor shall submit to the Engineer for approval an updated Program at intervals of 90 Days no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Program within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.
- 26.5. The Engineer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Engineer again at any time. A revised Program shall show the effect of Variations and Compensation Events.

### **27. Extension of the Intended Completion Date**

- 27.1. If the Contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing along with the full supporting information, to the Engineer in Charge, SSCL, on account of which he desires such extension. SSCL shall forward the aforesaid application to the competent authority as prescribed.
- 27.2. The competent authority may grant such extension at each such occasion within a period of 30 days of receipt of application from contractor and shall not wait for finality of work. If the work is delayed due to contractor's negligence or fault the extensions may be granted in accordance with provisions under Clause 43.2 of GCC.
- 27.3. In case of the work already in progress, the contractor shall proceed with the execution of the works, including maintenance thereof, pending receipt of the decision of the competent authority as aforesaid with all due diligence.
- 27.4. If the commercial operations for the Project are not achieved within the stipulated time period for reasons not attributable to the Contractor, the Employer shall determine any extension of the dates set forth in the commercial operations time schedule to which the Contractor is

reasonably entitled. The Employer shall extend such dates and the Concession Period shall be deemed to be extended by a period equal in length to the period extended.

### **28. Delays Ordered by the Engineer**

28.1. The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works. Delay/delays totalling more than 30 days will require prior written approval of the Employer.

### **29. Management Meetings**

29.1. The Engineer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the plans for the Works.

29.2. The Engineer shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.

## **C. QUALITY CONTROL**

### **30. Quality Control on Works and Materials**

30.1. The Contractor shall be responsible for the quality of the work for all the works under this contract. The Contractor shall, therefore, have his own independent and adequate set-up for ensuring the same.

30.2. The Engineer shall inspect the work from time to time during and after construction and ascertain the quality of the work after testing (by himself, by his Testing and Quality Control Units or by any other agency deemed fit by him). All the procedures and tests as directed by the Engineer shall be followed.

30.3. The Contractor shall provide necessary cooperation and assistance in conducting the tests and obtaining the samples for tests and carrying out the field tests as required by the Engineer from time to time. This may include provision of labor, attendance, assistance in packing and dispatching and any other assistance considered necessary in connection with the tests.

30.4. The Contractor shall carry out modification in procedure of work, if any, as directed by the Engineer during inspection.

30.5. Works falling short of quality as per test standards shall be rectified by the Contractor as directed by the Engineer at his own cost.

30.6. Where the Engineer considers that in the interest of the control of the quality on materials or workmanship, modifications, if any, are necessary, such modifications shall be carried out by the Contractor at no extra cost.

### **31. Quality Assurance and Quality Control**

31.1. The contractor shall execute all the works and perform tests as per QA & QC Plan, as approved by the Engineer / Employer.

31.2. General responsibilities

Contractor shall be responsible for providing:

- a. All necessary plant, labor, equipment, and construction materials to be used in the works;
- b. All plant, equipment, materials, and labor for temporary and auxiliary works;
- c. All equipment and components to be installed or incorporated in the works;
- d. Transportation and storage facilities for all materials and equipment;
- e. Office and accommodation for staff and labor; and

- f. for consultants and Employer's staff Sanitation facilities at the site; and
- g. All necessary staff and equipment for testing and quality control including site office laboratories.

### **32. Tests**

- 32.1. For Carrying out mandatory tests as prescribed in the specifications, the Contractor shall establish field laboratory at the location decided by Engineer. The field laboratory will have minimum equipment as specified in Appendix to ITB. The Contractor shall be solely responsible for: (a) Carrying out the mandatory tests prescribed in the Specifications, and (b) For the correctness of the test results, whether preformed in his laboratory or elsewhere.
- 32.2. If the Engineer instructs the Contractor to carry out a test not specified in the Specifications to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples.

### **33. Correction of Defects noticed during the Defect Liability Period for one year**

- 33.1. The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion of work. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 33.2. Every time notice of Defect/Defects is given; the Contractor shall correct the notified Defect/Defects within the duration of time specified by the Engineer's notice.
- 33.3. The request for inspection (RFI) system will be followed for execution of work.

### **34. Uncorrected Defects**

- 34.1. If the Contractor has not corrected a Defect pertaining to the Defect Liability Period under Clause 33.1 and of these Conditions of Contract, to the satisfaction of the Engineer, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount, on correction of the Defect.

## **D. CHANGE OF SCOPE**

### **35. Change of Scope**

#### **35.1. Initiated by the Employer**

- 35.1.1. Change of Scope may be initiated by the Employer at any time during the Contract Period, either by instruction or by a request for the Contractor to submit a proposal. The Contractor shall not make any alteration or modification of the Works, unless and until Employer instructs or approves a change. If the Construction Documents, Works or Operation and Maintenance Procedures are not in accordance with this Contract Agreement, the rectification, repair, or remedy thereof shall not constitute a change of scope.

#### **35.1.2. Procedure for Change of Scope:**

- (a) If Employer requests a proposal through a Change of Scope Notice, the Contractor, with due diligence, shall submit as soon as practicable: (i) a description of the proposed design or work to be performed and a programme for its execution; (ii) Costs for Change of Scope including break down of the quantities, unit rates and cost for different items of work; (iii) the Contractor's proposal for any necessary modifications to the Project Implementation Schedule; and (iv) the Contractor's proposal for adjustment to the Annual License Fee payable to Employer, Scheduled Date of Construction Completion and/ or modifications to this Contractor Agreement. For the avoidance of doubt, the Parties expressly agree that,

subject to the provisions of Clause 35.3, the Contract Price shall be increased or decreased, as the case may be, on account of Change of Scope.

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

- (i) For works where Schedule of Rates (SOR) of concerned circle of State's Public Works Department are available shall be applicable for determination of costs. In case of non-availability of current SOR, the available Schedule of Rates shall be applied by updating the same based on WPI.
- (ii) For works not similar in nature to the Works being executed, the cost of work shall be derived based on the prevailing market rates as determined by the Employer's Engineer shall apply, the Employer's Engineer shall determine the rate in accordance with Good Industry Practice.

35.1.3. The Employer shall, within 30 days of receipt of such proposals, respond with approval, rejection, or comments.

35.1.4. Upon acceptance, the Employer shall issue an order (the "Change of Scope Order") requiring the Contractor to proceed with the performance thereof.

35.1.5. The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works undertaken by the Contractor under this Article 35.

35.1.6. 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.

35.1.7. Restrictions on Change of Scope

- (a) No Change of Scope shall be executed unless the Employer has issued the Change of Scope Order save and except any Works necessary for meeting any Emergency.
- (b) Notwithstanding anything to the contrary in this Article 35, no change made necessary because of 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.

**35.2. Initiated by Contractor**

35.2.1. The Contractor may, at any time during the Contract Period, initiate a change of scope, by submitting to Employer a written proposal which in the Contractor's opinion will reduce the cost of construction, maintaining or operating the Works, or improve the efficiency or value to the Employer of the completed Works, or otherwise be of benefit to the Employer or to rectify a divergence between any law or directive and the Technical Requirements. Any such proposal shall be prepared at the cost of the Contractor and shall include the items listed in Article 35.1.2.

35.2.2. Employer shall, as soon as practicable after receipts of such proposals respond with approval, rejection, or comments. For the avoidance of doubt, the Parties agree that the Contractor shall not undertake any Change of Scope without the express consent of the Employer, save and except any Works necessary for meeting any Emergency.

35.3. The Employer can decide deviation as per the Contract Data.

## **E. ADJUSTMENTS**

### **36. Amendments to the Contract Conditions/Specifications**

36.1. "If the Employer determines that if, in exceptional circumstances, it would be in best interests of the Project to modify or amend some of the Contract Conditions/ Specifications, then such modifications or amendments may be made if mutually agreed by the Employer and the Contractor without any financial liability to the Employer.

### 37. Payment Certificates

- 37.1. The payment to the Contractor will be as follows for construction work:
- The Contractor shall submit to the Engineer payment certificates for each of the milestones in Contract Data along with supporting documents.
  - The Engineer shall check the Contractor's payment certificate within 14 days and certify the amount to be paid to the Contractor.
  - The value of work executed shall also include the valuation of Compensation Events.
  - The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

### 38. Payments

- 38.1. The eligible payments for Planning, Design and Construction of all the components of this facility shall be paid to the Contractor by Employer as per the payment schedule mentioned under Clause No. 11 of Special Conditions of Contract.
- 38.2. The eligible payments will be the accepted Contract Price quoted by the Contractor for construction of a MLCP with minimum 70 Nos. ECS and Office space. However, in case the Contractor fails to provide minimum of 70 Nos. ECS at the time of project implementation, the eligible payment shall be determined considering the per unit price for each ECS as per the contractor's quote towards "Design and Construction of Mechanized Fully Automatic Multi Level Car Parking Facility" as per the FIN FORM – 1: LETTER OF FINANCIAL BID, Section 7. For Example: Let's say Contractor quoted Rs. 5.25 Cr. for 70 ECS towards "Design and Construction of Mechanized Fully Automatic Multi Level Car Parking Facility", but at the time of implementation the Contractor is able to build only 65 ECS, then the eligible payment shall be reworked considering per unit ECS price of Rs. 7.50 Lakhs (i.e., Rs. 5,25,00,000/ 70) to Rs. 4.875 Cr. ( $=65 \times 0.075$ ) for 65 ECS. If the Contractor is able to build more than minimum of 70 ECS, the contractor shall be entitled for extra payment (incentive) for the additional ECSs on the basis of the unit price quoted subject to maximum up to Rs. 40 Lakhs.
- 38.3. The Payment towards the **Annual Guaranteed License fees** during the operation & maintenance of MLCP for five (5) years by the Contractor to the Employer shall be due and payable, in advance, within first 30 (Thirty) calendar days of each financial year. It is clarified that the payment of the first instalment of the Annual Guaranteed license fee period between commencement of Operations and last day of the Financial Year shall be payable on pro-rata basis.
- 38.4. If the Contractor fails to pay the Annual License Fee Performance Security towards Operation & Maintenance works within the time specified in the above Clause No. 38.3, the penalty for late payment shall be imposed as per the Contract data.
- 38.5. The Employer may appoint another authority, as specified in the Contract Data (or any other competent person appointed by the Employer and notified to the Contractor) to make payment certified by the Engineer.
- 38.6. The Contractor shall submit the bill to the Employer after the completion of construction milestones as per the payment schedule. The Engineer shall check the Contractor's work progress within 14 days of the bill submission and certify the amount to be paid to the Contractor.
- 38.7. Payments shall be adjusted for deductions for advance payments security deposit, other recoveries in terms of the Contract and taxes at source, as applicable under the law. The Engineer shall pay the Contractor the amounts he had certified within 21 days of the date of each certificate.
- 38.8. The 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 the Engineer had notified the Contractor; and
- (b) the estimated cost of rectification of work done being not in accordance with this Agreement.

38.9. The Payment of final bill shall be governed by the provisions of clause 49 of GCC.

### **39. Compensation Events**

- 39.1. The following shall be Compensation Events unless they are caused by the Contractor:
- a. The Engineer orders a delay or delays exceeding a total of 30 days.
  - b. The effects on the Contractor of any of the Employer's Risks.
- 39.2. If a Compensation Event would prevent the Works being completed before the Intended Completion Date, the Intended Completion Date shall be extended. The Engineer shall decide whether and by how much the Intended Completion Date shall be extended.

### **40. Tax**

- 40.1. The price quoted by the Contractor shall be deemed to be inclusive of GST, the sales and other levies, duties, royalties, cess, toll, taxes of Central and State Governments, local bodies, and authorities that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties regarding the deduction of such taxes at source as per applicable law. GST will be paid as per applicable rates.

### **41. Price Adjustment and Currencies**

- 41.1. Price adjustment will be applicable only after the scheduled period for completion and on the balance works. Bidders are required to quote accordingly. Price adjustment after the scheduled completion period<sup>7</sup> shall be governed by the subsequent clause.
- 41.2. Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants and other inputs to the works in accordance with the principles and procedures outlined below. A table of adjustment data is included in the Contract Data which indicates the coefficients of various inputs and the sources of indices for various schedules of item of work. If the Contract Data does not include a table of adjustment data, this sub clause shall not apply and there shall be no price adjustment.
- a. The price adjustment according to sub para (d) below, shall apply for the work done from the scheduled completion date upto a date as approved by the Engineer. If there is delay in completion beyond such date for reasons attributable to the contractor, the Price Adjustment for the work carried out during such period, for reasons attributable to the Contractor, shall be regulated by sub-para (f) below.
  - b. The Contract Price shall be adjusted to take account of any increase or decrease in cost after the base date, which affect the Contractor in performance of obligations under the Contract.
  - c. The total value (R) of the work done during the specified period shall be as under:

$$R = \text{SUM} (RS1 + RS2 + RS3 + \dots \dots \dots RS_n),$$

Where,

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<sup>7</sup> subject to such extension are granted by the Employer and the delay is not attributable to the Contractor, in which case, sub-para (a) and (g) under para 42.2 shall be applicable

'**RSn**' is the value of work done during the specified period to which the price adjustment shall be applied for the relevant schedule of milestone specified in the Contract Data during the specified period, and represented as under:

**RSn** = (**VS<sub>n</sub>** + **SS<sub>n</sub>**) minus (amount of secured advance recovered in the same period)

Where,

**VS<sub>n</sub>** is the total value of work done during the specified period for the respective schedule of milestone, and

**SS<sub>n</sub>** is the secured advance paid during the specified period for the respective schedule of milestone.

- d. The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate schedule of milestone and certified in Payment Certificates, shall be determined from formulae which shall be of the following general type:

$$P_n = a + b L_n/L_o + c E_n/E_o + d M_n/M_o + \dots\dots\dots$$

Where,

"**P<sub>n</sub>**" is the adjustment multiplier to be applied to the value of the work done during the period "n", this period being a month unless otherwise stated in the Contract Data.

"**a**" is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments.

"**b**", "**c**", "**d**",... are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labor, equipment and materials;

"**L<sub>n</sub>**"[Labor], "**E<sub>n</sub>**"[Equipment], "**M<sub>n</sub>**"[Material], ...are the current cost indices or reference prices for period "n", each of which is applicable to the relevant tabulated cost element [Labor, Equipment, Steel, Cement, Fuel/Lubricants, Bitumen, others] on the date, specified in the Table-2 of Adjustment Data, prior to the last day of the period (to which the particular Payment Certificate relates);

and

"**L<sub>o</sub>**", "**E<sub>o</sub>**", "**M<sub>o</sub>**" .... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.

- e. The cost indices or reference prices stated in the tables of adjustment data given in Contract Data shall be used. The base date shall be the deadline for the submission of bids.
- f. If the Contractor fails to complete the Works within the Intended Completion date, adjustment of prices thereafter shall be made using either:
- i. index or price applicable for each cost element tabulated in the tables of adjustment data on the specified date prior to the expiry of the Intended Completion Date, or

- ii. the current index or price applicable for the period in question whichever is more favourable to the Employer.
  - g. The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be varied by the Engineer if they have been rendered unreasonable, unbalanced, or inapplicable, as a result of Variations.
  - h. Unless otherwise stated in the Contract Data, the Price adjustment shall be done in each Payment Certificate [PC]. The coefficients and indices are given in the Tables of Adjustment Data in Contract Data.
- 41.3. All payments will be made in Indian Rupees.

#### **42. Security Deposit/ Retention and Release of Performance Security and Security Deposit/ Retention**

- 42.1. The Employer shall retain security deposit of 5% of the amount from each payment due to the Contractor until completion of the whole of the construction Work.
- 42.2. On the completion of the whole of the construction Work half of the total amount retained as Security Deposit is repaid and half when the defect liability period has passed and the Engineer has certified that all defects notified by the Engineer to the Contractor before the end of his period have been corrected.
- 42.3. The performance security for the Construction Works (i.e., 3% of the Contract Price) as specified in Clause 33 of ITB will be released to the Contractor when the defect liability period is over and the Engineer has certified that the Contractor has satisfactorily carried out the Works.
- 42.4. The Performance Security towards Operation & Maintenance works (i.e., 2% of the Contract Price), which will be submitted by the Contractor after the completion of Construction Works (MLCP and Office Complex) and before release of Performance Security towards Construction of Works, shall be released after:
  - i. A certificate is issued by Engineer-in-charge certifying that contractor has successfully completed all the works related to the operation and maintenance as specified in the "Scope of Services for Operation and Maintenance (O&M) of MLCP" given under Section 5 – SCOPE OF WORK AND TECHNICAL SPECIFICATIONS.
  - ii. After issuance of taking over certificate.

#### **43. Liquidated Damages**

- 43.1. The Contractor shall pay liquidated damages to the Employer at the rate per week or part thereof stated in the **Contract Data** for the period that the Completion Date is later than the Intended Completion Date. Liquidated damages at the same rate shall be withheld if the Contractor fails to achieve the milestones prescribed in the **Contract Data**. However, in case the Contractor achieves the next milestone the amount of the liquidated damages already withheld shall be restored to the Contractor by adjustment in the next payment certificate. The total amount of liquidated damages shall not exceed the amount defined in the **Contract Data**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's other liabilities.
- 43.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

#### **44. Advance Payment**

- 44.1. The Employer will make the following advance payment to the Contractor against provision by the Contractor of an Unconditional Bank Guarantee in the prescribed format specified in the



Bidding Document by a nationalized bank/scheduled commercial bank acceptable to the Employer in amounts equal to the advance payment and valid till the period of recovery:

- a) **Mobilization Advance:** Mobilization Advance up to 10% (Ten Percent) of the contract price may be given, if requested by the contractor in writing within one month from the date of issue of notice to proceed. Such advance shall be in one or more instalments to be determined by the Engineer at his sole discretion. The first instalment of such advance shall be released by the Engineer to the contractor on a request made by the contractor to the Engineer. Any subsequent instalments shall be released by the Engineer only after the contractor furnishes a proof of the satisfactory utilization of the earlier instalment to the entire satisfaction of the Engineer.
- b) **Equipment advance:** up to 75% (seventy-five) percent of the cost of the new equipment brought to the site, after due approval of the Engineer. Such advance shall be recovered from the next running account bill of the Contractor in proportionate to the equipment incorporated in the work.

The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee may be progressively reduced by the amounts repaid by the Contractor.

Before any instalment of advance is released, the contractor shall execute an Unconditional Bank Guarantee in the prescribed format specified in the Bidding Document by a Nationalized Bank/Scheduled Commercial Bank acceptable to the Employer in amounts equal to the advance payment and valid till the period of recovery. The said Bank Guarantee shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery.

Recovery of such sums advanced shall be made by the deduction from the contractor's bills commencing after first five percent (5%) of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 5% in such a way that the entire advance is recovered by the time eighty percent (80%) of the gross value of the contract is executed and paid.

No account shall be taken of the advance payment or the repayment in assessing valuation of work done, variations, price adjustments, Compensation events or liquidated damages.

If the circumstances are considered reasonable by the Engineer, the period mentioned above may be extended at the discretion of the Engineer, upon request by the contractor in writing for grant of mobilization advance.

The Contractor is to use the mobilization advance payment only for mobilization purpose. The Contractor shall demonstrate that the advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer.

- 44.2. **Secured Advance on materials:** The contractor, on signing an indenture in the form to be specified by the Engineer, shall be entitled to be paid during the progress of the execution of the work up to 75% (seventy-five) percent of the cost of any materials on submission of invoices, which are in the opinion of the Engineer non-perishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered/deducted from the next payment made under any of the clause or clauses of this contract.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

The Contractor is to use the advance payment only to pay for materials required specifically for execution of works. The Contractor shall demonstrate that the advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer.

- 44.3. The equipment and materials advance for the materials brought to the site, are subjects to a maximum of Ten (10) percent of the contract price and after due approval of the Engineer. Subsequent advances for the item against which the Contractor has already claimed the advance are applicable subject to 90% (Ninety percent) recovery of already paid advance against the same material/ equipment.
- 44.4. The Contractor is to use the advance payment only to pay for Equipment, materials and mobilization expenses required specifically for execution of works. The Contractor shall demonstrate the advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer.

#### **45. Securities**

- 45.1. The Performance Security as specified in Clause 33 of ITB shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in the form given in Section 7 and by a Nationalized Bank or Scheduled Commercial Bank. The Performance Security for the Construction Works shall be valid until a date 60 days from the date of expiry of Defect Liability Period, while for the performance security towards O&M shall be valid until a date six months from the date of completion of O&M Period.

#### **46. Cost of Repairs**

- 46.1. Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at his cost if the loss or damage arises from the Contractor's acts or omissions.
- 46.2. Any future interventions by any other agencies working in the subject area, SSCL will assist the Contractor to recover the resurfacing/repairing costs incurred due to additional interventions from the respective department.

## **F. FINISHING THE CONTRACT**

#### **47. Completion of Construction**

- 47.1. When the whole of the Construction work has been completed and has satisfactorily passed any final test that may be prescribed by the Contract, the contractor may give a notice to that effect to the Engineer-in-charge accompanied by an undertaking to carry out any rectification work during the defect liability period (i.e., 12 months from the actual date of completion of work in all respects), such notice and undertaking shall be in writing and shall be deemed to be request by the contractor for the Engineer-in-charge to issue a Certificate of completion in respect of the Construction Works. The Engineer-in-charge shall, within twenty-one days of the date of delivery of such notice either issue to the contractor, a certificate of completion for Construction Works' or 'Works Completion Certificate' stating the date on which, in his opinion, the construction works were completed in accordance with the Contract or give instructions in writing to the contractor specifying all the construction works which, in the Engineer-in-charge's

opinion, required to be done by the contractor before the issue of such Certificate. The Engineer-in-charge shall also notify the contractor of any defects in the works affecting completion that may appear after such instructions and before completion of the works specified therein. The contractor shall be entitled to receive such Certificate of the Completion within twenty-one days of completion to the satisfaction of the Engineer-in-charge of the works so specified and making good of any defects so notified. The Operation & Maintenance period (as specified in the NIT and other parts of this Bidding Document) shall commence after issuance of 'Certificate of Completion for Construction Works' or 'Works Completion Certificate' by the Engineer-in-charge.

The Contractor shall ensure that various components of the Works are executed in conformity with the Technical Specifications / Works requirement, and that the Works are fully completed within the Time for Completion. The entirety of the Works shall be completed and shall have passed the Tests on Completion, trial run, and Commissioning within the Time for Completion of the Works.

- 47.2. Upon the request of the contractor, the Engineer-in-charge shall issue a Certificate of **Completion in respect of:**
- a. Any section of the Permanent works in respect of which a separate time for completion is provided in the Contract, and
  - b. Any substantial part of the Permanent Works, which has been both completed to the satisfaction of the Engineer-in-charge and occupied or used by the department.
  - c. If any part of the Permanent Works shall have been completed and shall have satisfactorily passed any final test that may be prescribed by the Contract, the Engineer-in-charge may issue such certificate, and the contractor shall be deemed to have undertaken to complete any outstanding work in that part of the works during defect liability period.

#### **48. Taking Over**

- 48.1. The Department shall take over the Site and the works within seven days after the completion of Operation & Maintenance works as certified by the Engineer-in-charge.

#### **49. Final Account**

- 49.1. The Contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable for works under the contract within 21 days of issue of certificate of completion of construction and O&M works respectively. The Engineer shall certify any payment that is due to the correct and complete. If the account is not correct or complete, the engineer shall issue within 30 days a schedule that states the scope of the corrections or additions that are necessary. If the account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate within 30 days of receiving the Contractor's revised account. The payment of final bill for construction of works will be made within 21 days thereafter.
- 49.2. In case the account is not received within 30 days of issue of Certificate of Completion as provided in clause 49.1 above, the engineer shall proceed to finalise the account and issue a payment certificate within 30 days. The payment of final bill for construction of works will be made within 21 days thereafter.

#### **50. Operating and Maintenance Manuals**

- 50.1. If "as built" Drawings and/or Operating and Maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

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

## **51. Termination**

- 51.1. The Employer may terminate the Contract if the Contractor causes a fundamental breach of the Contract.
- 51.2. Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- a. The Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Engineer,
  - b. The Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation,
  - c. The Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period determined by the Engineer,
  - d. The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in clause 43.1,
  - e. The Contractor fails to provide insurance cover as required under Clause 13,
  - f. If the Contractor, in the judgement of the Employer, has engaged in the corrupt or fraudulent practice in competing for or in executing the Contract. For the purpose of this clause, "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in Contract execution. "Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid process at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition. The Contractor shall execute the Integrity Pact as per format given in Tech Form 11,
  - g. If the Contractor has not completed at least thirty percent of the value of construction Work required to be completed after half of the completion period has elapsed, and
  - h. Any other fundamental breaches as specified in the Contract Data.
  - i. If the Contractor fails to deploy machinery and equipment or personnel as specified in the contract Data at the appropriate time.
  - j. If the Contractor fails to pay Annual Guaranteed License fee to SSCL for two continuous years during Operation and Maintenance Period.
- 51.3. Notwithstanding the above, the Employer may terminate the Contract for convenience or for other reasons beyond its control.
- 51.4. If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

## **52. Payment upon Termination**

- 52.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less liquidated damages (if any), less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the Contract Data. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered from the security deposit, and performance security. If any amount is still left un-recovered it will be a debt payable to the Employer.

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

### **53. Property**

- 53.1. All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer for use for completing balance construction work if the Contract is terminated because of the Contractor's default, till the Works is completed after which it will be transferred to the Contractor and credit, if any, given for its use.

### **54. Releases from Performance**

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

## **G. OTHER CONDITIONS OF CONTRACT**

### **55. Labour**

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

### **56. Compliance with Labour Regulations**

- 56.1. During continuance of the Contract, the Contractor shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given in Appendix to Part I General Condition of Contract. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

- 56.2. The employees of the Contractor in no case shall be treated as the employees of the Employer at any point of time.

**57. Drawings and Photographs of the Works**

- 57.1. The Contractor shall do photography/video photography of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work and lastly after the completion of the work. No separate payment will be made to the Contractor for this.
- 57.2. The Contractor shall not disclose details of Drawings furnished by Employer and works on which the Contractor is engaged without the prior approval of the Engineer in writing. No photograph of the works or any part thereof or plant employed thereon, except those permitted under clause 57.1, shall be taken by the Contractor without the prior approval of the Engineer in writing. No photographs/ Video photography shall be published or otherwise circulated without the approval of the Engineer in writing.

**58. The Apprentices Act 1961**

- 58.1. The Contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961), the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subject to all liabilities and penalties provided by the said Act and said Rules.

**59. Criminals are prohibited from bidding**

- 59.1. Any bidder who has been convicted by a court of law for criminal activities including but not limited to organized crime or gangster activities or Mafia or Goonda or Anti-social activity in the last 5 years (till the date of NIT) is not eligible to bid. If it is established that any bidder has been convicted by a court of law, his bid shall be automatically cancelled.

**60. Force Majeure (FM) Clause**

- 60.1. Conditions beyond control of either parties like war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics, strikes, lockouts or acts of God come under the legal concept of Force Majeure (FM). Delays in performance of contractual obligations under influence of FM conditions are condonable by the other party without any right to termination or damages, provided, notice of the happening of any such event is given by the affected party to the other within 30 (thirty) days from the date of occurrence. Works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. However, if such event continues for a period exceeding 120 days, either party may at its option terminate the contract by giving notice to the other party.

## CONTRACT DATA TO GENERAL CONDITIONS OF CONTRACT

Clause Reference of GCC																	
CI 1.1(xiii)	Chief Executive Officer (CEO), Shillong Smart City Limited																
CI 1.1(xvii)	The Intended Completion Date for the Construction Works is Twenty-Four (24) months including Monsoon Period from the date of issue of Notice to Proceed. The O&M Period for MLCP will be for Five (5) years.																
CI 1.1(xix)	The Sites are located: within Shillong Urban Agglomeration boundary																
CI 1.1(xxii)	The Start Date shall be as defined in the Notice to Proceed with the work																
CI 1.1(xxvi)	The Works: Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong Under Shillong Smart City Mission, East Khasi Hills District, Meghalaya																
CI 3.1	(a) The law which applies to the Contract is the law of Union of India. (b) The language of the Contract documents is English.																
CI 6.1	<b>Chief Executive Officer (CEO)</b> Shillong Smart City Limited House No. C/B-037, Top Floor, Centre Nongrim Hills, Near JJ Cables, Shillong, East Khasi Hills District, Meghalaya – 793003																
CI 8.1	The Schedule of Other Contractors – NA																
CI. 9.1	Individual Personnel with equivalent or better than submitted in technical proposal/ as per Appendix to ITB.																
CI 13.1	Amount and deductible for insurance are:																
	<table border="1"> <thead> <tr> <th>S.N</th> <th>Particulars</th> <th>Minimum Cover for Insurance</th> <th>Maximum Deductibles for Insurance</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Work &amp; Plant &amp; Materials</td> <td>Equal to Contract Amount</td> <td>0.4% of Contract Amount</td> </tr> <tr> <td>2.</td> <td>Loss or Damage to Equipment</td> <td>10% of Contract Amount</td> <td>0.4% of Contract Amount</td> </tr> <tr> <td>3.</td> <td>Other Property (Unlimited occurrences)</td> <td>5% of Contract Amount</td> <td>0.4% of Contract Amount</td> </tr> </tbody> </table>	S.N	Particulars	Minimum Cover for Insurance	Maximum Deductibles for Insurance	1.	Work & Plant & Materials	Equal to Contract Amount	0.4% of Contract Amount	2.	Loss or Damage to Equipment	10% of Contract Amount	0.4% of Contract Amount	3.	Other Property (Unlimited occurrences)	5% of Contract Amount	0.4% of Contract Amount
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	1.	Work & Plant & Materials	Equal to Contract Amount	0.4% of Contract Amount													
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	3.	Other Property (Unlimited occurrences)	5% of Contract Amount	0.4% of Contract Amount													
	<b>Personal Injury or death insurance:</b>																
4.	a) For other people (unlimited occurrences)	₹ 25 lacs	-														
5.	b) For Contractor's employees	In accordance with the statutory requirements applicable to India															
CI 14.1	<b>Site Investigation Reports:</b> Not Applicable																
CI 26.1	The Contractor shall submit for approval a Program for the Works within Fifteen days (15) from the date of the Letter of Acceptance.																
CI 26.4	The period between Program updates is Ninety (90) days.																
CI 26.4	The amount that may be withheld for late submission of an updated Program is ₹5,000/- per day																
CI 35.3	The Employer to decide deviation up to 1.5 times of tendered amount.																
CI 37.1 (a)	<b>Schedule for milestones to be achieved during the contract period as per following timelines.</b>																

S.No.	Stages of Work	Time for each activity (Months)	Intended Completion Time (Months from Start of Work)
<b>I.</b>	<b>Design and Drawings</b>		
a)	Submission and approval of survey, site investigation, layout, design-drawing, etc. for Construction of Office Complex works along with finishing works, electrical and mechanical works, firefighting, plumbing systems, and supply, installation, erection and commissioning of mechanized multilevel car parking and other smart solutions including ticket counters, control room, firefighting system arrangements, ventilation, civil etc. by SSCL.	3.00	3.00
<b>II.</b>	<b>Civil Works (for Office Complex and MLCP)</b>		
<b>1</b>	<b>Structure Works</b>		
a)	Dismantling of existing structure and preparation of sites including barricades and safety measures	1.00	4.00
b)	Completion of Ground Floor slab including foundation as per the approved design and drawings.	3.00	7.00
c)	Completion of stilt floor (S, S1, S2 & S3) slab (till 2 <sup>nd</sup> floor roof)	3.00	10.00
d)	After completion of 3 <sup>rd</sup> floor roof	2.00	12.00
e)	After completion of 4 <sup>th</sup> floor roof	2.00	14.00
f)	After completion of 5 <sup>th</sup> floor roof	2.00	16.00
<b>2</b>	<b>Finishing Works – After completion of plastering, painting, door window, flooring, electrical conduits, plumbing, firefighting, and other finishing works</b>		<b>Work start after completion of structure works at stilt floor (S, S1, S2 &amp; S3 slab i.e., 10 months</b>
a)	Completion of stilt floor (S, S1, S2 & S3) slab (till 2 <sup>nd</sup> floor roof)	2.00	12.00
b)	Completion of 3 <sup>rd</sup> level	2.00	14.00
c)	Completion of 4 <sup>th</sup> level	2.00	16.00
d)	Completion of 5 <sup>th</sup> level	2.00	18.00
<b>III</b>	<b>Electrical and mechanical works</b>		<b>Works can be taken up along with finishing works. Hence, start after 12 months.</b>
a)	Completion of all electrical and mechanical works including Water Tanks (including RWH), STP, fire tanks etc. as per approved design- drawing, specifications of relevant I.S. Codes.	3.00	15.00



	b)	Completion of all electrical and mechanical works including RWH system, Water pumps, firefighting system, and Rooftop Solar PV installations etc. as per approved design- drawing, specifications of relevant I.S. Codes.	3.00	18.00
	c)	Completion of all electrical and mechanical works including lifts, installation of DG sets, UPS, CCTV system, LAN, IP BASED EPABX SYSTEM, Conference room installations, control rooms, IBMS installations as per approved design-drawing, specifications of relevant I.S. Codes.	2.00	20.00
	<b>IV</b>	<b>External Development works</b>		
		Completion of External Development works including compound wall, gates, internal roads/ pavement, street lighting, LED signage and landscaping etc.	2.00	22.00
	<b>V</b>	<b>Handover of Office floors</b>		
	a)	Inspection & Compliance to check completion of all works for Office floors along with porch, lobby, lift and staircase area including civil, electrical, firefighting, plumbing and other smart solutions works.	1.00	23.00
	b)	Handing over the all completed Office floors along with porch, entrance lobby, lift, toilet and staircase area including civil, electrical, firefighting, plumbing and other smart solutions works including IBMS.	1.00	24.00
	<b>3</b>	<b>For Mechanized multilevel parking with minimum 70 Nos. Parking</b>		<b>Work can start after 15 months</b>
	a)	Completion of Steel Structure Work at all level	3.00	18.00
	b)	Completion of installation of motors, Drum & Sprocket, Pulley, Sensors, Electrical works and weather proof trifold sheet cladding (Glass) works along with other parking related equipment and accessories	2.00	20.00
	c)	Pre - Commissioning & testing (trial run) of the Car Parking along with software / hardware components with Smart Parking solutions (CCTV system, website/ mobile apps etc.), ticket counters, control room to make the parking system operational as per approved design- drawing, specifications of relevant I.S. Codes.	2.00	22.00
	d)	Commissioning of MLCP Operations	2.00	24.00
CI 38.4	<b>Penalty for Late Payment of Annual Guaranteed Licence Fee:</b> Rs. 5,000 (Rupees Five Thousand only) per day. Maximum up to Rs. 1,00,000 (Rupees One Lakh Only).			

	If the Contractor fails to pay the Annual Guaranteed Licence Fee within 1 (One) months of the specified time, the same shall be recovered from the Performance security towards O&M along with the maximum penalty due for late payment.
CI 38.5	The authorized person to make payments is Chief Executive Officer, Shillong Smart City Limited, Shillong
CI.41.2	Refer Appendix-2 to Part I General Condition of Contract
CI 43.1	<b>Liquidated Damages:</b> <b>(a) Amount of liquidated damages for delay in completion works as per Contract data clause no. 37.1</b> 1 percent of the contract price of work, rounded off to the nearest thousand, per week. <b>(b) Maximum limit of liquidated damages for delay in completion work.</b> 10 percent of the contract price of work rounded off to the nearest thousand.
CI 50.1	The date by which "as-built" drawings (in scale as directed) in electronic copy (AutoCAD and PDF format) and hard copy (2 sets) and Operating & Maintenance manuals are required to be submitted within 28 days of issue of certificate of completion of whole or section of the work, as the case may be.
CI 50.2	The amount to be withheld for non-compliance to the Clause 50.1 by the date required is Rs. One Lakh. Thereafter, one lakh per week subject to maximum of Rs. 20 lakhs.
CI 51.2(h) (i)	As per Clause 9.1 and 16 of GCC
CI 52.1	The percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be 20%.

## APPENDIX 1 TO PART I GENERAL CONDITION OF CONTRACT

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

1. **Workmen Compensation Act 1923:** - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
2. **Payment of Gratuity Act 1972:** - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days" (say, 15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.
3. **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%). The benefits payable under the Act are:
  - a. Pension or family pension on retirement or death as the case may be.
  - b. Deposit linked insurance on the death in harness of the worker.
  - c. Payment of P.F. accumulation on retirement/death etc.
4. **Maternity Benefit Act 1951:** - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
5. **Contract Labour (Regulation & Abolition) Act 1970:** - The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ prescribed minimum (say 20) or more contract labour.
6. **Minimum Wages Act 1948:** - The Contractor is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Constructions of buildings, roads, runways are scheduled employment.
7. **Payment of Wages Act 1936:** - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
8. **Equal Remuneration Act 1979:** - The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.
9. **Payment of Bonus Act 1965:** - The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.
10. **Industrial Disputes Act 1947:** - The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
11. **Industrial Employment (Standing Orders) Act 1946:** - It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get these certified by the designated Authority.

12. **Trade Unions Act 1926:** - The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
13. **Child Labour (Prohibition & Regulation) Act 1986:** - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in building and construction industry.
14. **Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979:** - The Act is applicable to an establishment which employs prescribed minimum (say, five) or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Travelling expenses from home up to the establishment and back etc.
15. The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996: - All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the workplace etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
16. **Factories Act 1948:** - The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say, 10) persons or more with aid of power or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

## SALIENT FEATURES OF SOME OF THE MAJOR LAWS THAT ARE APPLICABLE FOR PROTECTION OF ENVIRONMENT AND CONSERVATION OF HERITAGE

1. **The Environment (Protection) Act, 1986 and as amended:** This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.
2. **The Forest Conservation Act, 1980, as amended, and Forest (Conservation) Rules, 1981 as amended:** These provides for protection of forests by restricting conversion of forested areas into non- forested areas and prevention of deforestation, and stipulates the procedures for cutting any trees that might be required by the applicable rules. Permissions under the Act also stipulate the norms and compliance requirements of the employer and any contractor on behalf of the employer.
3. **State Tree Preservation Acts** as may be in force: These provide for protection of trees of important species. Contractors will be required to obtain prior permission for full or partial cutting, uprooting, or pruning of any such trees.
4. **The Wildlife (Protection) Act, 1972, and as amended:** This provides for protection of wildlife through notifying National Parks and Sanctuaries and buffer areas around these zones; and to protect individuals of nationally important species listed in the Annex of the Act.
5. **The Biological Diversity Act, 2002:** This provides for conservation of biological diversity, sustainable use of components of biological diversity, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.
6. **The Public Liability Insurance Act, 1991 as amended and The Public Liability Insurance Rules, 1991 as amended:** These provide for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986 and exceeding such quantity as may be specified by notification by the Central Government.
7. **The Ancient Monuments and Archaeological Sites and Remains Act, 1958 and the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010, the Ancient Monuments and Archaeological Sites and Remains Rules, 1959 amended 2011, the National Monuments Authority Rules, 2011 and the similar State Acts:** These provide for conservation of cultural and historical remains found in India. Accordingly, area within the radii of 100m and 300m from the "protected property" are designated as "protected area" and "controlled area" respectively. No development activity (including building, mining, excavating, blasting) is permitted in the "protected area" and development activities likely to damage the protected property is not permitted in the "controlled area" without prior permission of the Archaeological Survey of India (ASI) or the State Departments of Art and Culture or Archaeology as applicable.
8. **The Environmental Impact Assessment Notification, 2006 and as amended:** This provides for prior environmental clearance for new, modernization and expansion projects listed in Schedule 1 of the Notification. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any environmental management plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.

9. The Water (Prevention and Control of Pollution) Act, 1974 as amended, and the Water (Prevention and Control of Pollution) Rules, 1975 as amended: These provide for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates waste water, and observe the required standards of establishment and operation of these items of work or installations; as well as install and operate all required waste water treatment facilities.
10. The Water (Prevention and Control of Pollution) Cess Act, 1977 and The Water (Prevention and Control of Pollution) Cess Rules, 1978: These provide for the levy and collection of a cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution under the Water (Prevention and Control of Pollution) Act, 1974.
11. The Air (Prevention and Control of Pollution) Act, 1981 as amended, and the Air (Prevention and Control of Pollution) Rules, 1982: These provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates air pollution such as, hot mix plants, power generators, backup power generation, material handling processes, and observe the required standards of establishment and operation of these items of work or installations.
12. **Noise Pollution (Control and Regulation) Rules, 2000, and as amended:** This provides for standards for noise for day and night for various land uses and specifies special standards in and around sensitive receptors of noise such as schools and hospitals. Contractors will need to ensure compliance to the applicable standards and install and operate all required noise control devices as may be required for all plants and work processes.
13. **Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996:** This provides for Requirement of preparation of on-site and off-site Disaster Management Plans for accident-prone areas.
14. **The Explosives Act 1884 and the Explosives Rules, 2008:** These provide for safe manufacture, possession, sale, use, transportation and import of explosive materials such as diesel, Oil and lubricants etc.; and also, for regulating the use of any explosives used in blasting and/or demolition. All applicable provisions will need compliance by the contractors.
15. **The Petroleum Rules, 2002:** This provides for safe use and storage of petroleum products and will need to be complied by the contractors.
16. **The Gas Cylinder Rules 2004 and amendments:** This provides for regulations related to storage of gas, and possession of gas cylinder more than the exempted quantity. Contractors should comply with all the requirements of this Rule.
17. **Manufacture, Storage, and Import of Hazardous Chemical Rules of 1989 and as amended:** These provide for use and storage of hazardous material such as highly inflammable liquids like HSD/LPG. Contractors will need to ensure compliance to the Rules;

and in the event where the storage quantity exceeds the regulated threshold limit, the contractors will be responsible for regular safety audits and other reporting requirements as prescribed in the Rules.

18. **Hazardous & Other Wastes (Management and Trans boundary Movement) Rules, 2016:** These provide for protection of general public from improper handling storage and disposal of hazardous waste. The rules prescribe the management requirement of hazardous wastes from its generation to final disposal. Contractors will need to obtain permission from the State Pollution Control Boards and other designated authorities for storage and handling of any hazardous material; and will to ensure full compliance to these rules and any conditions imposed in the permit.
19. **The Bio Medical Waste Management Rules, 2016:** This provides for control, storage, transportation and disposal of bio-medical wastes. As and where the contractor has any first aid facility and dispensaries, established in either temporary or permanent manner, compliance to these Rules are mandatory.
20. **Construction and Demolition Waste Management Rules, 2016:** This provides for management of construction and demolition waste (such as building materials possible to be reused, rubble and debris or the like); and applies to all those wastes resulting from construction, re-modelling, repair or demolition of any civil structure. Contractor will need to prepare a waste disposal plan and obtain required approval from local authorities, if waste generation is more than 20 tons in any day or 300 tons in any month during the contract period; and ensure full compliance to these rules and any conditions imposed in the regulatory approval.
21. **The E-Waste (Management) Rules, 2016:** This provides for management of E-wastes (but not covering lead acid batteries and radio-active wastes) aiming to enable the recovery and/or reuse of useful material from e-waste, thereby reducing the hazardous wastes destined for disposal and to ensure the environmentally sound management of all types of waste of electrical and electronic equipment. This Rule applies to every manufacturer, producer, consumer, bulk consumer, collection centres, dealers, e-retailer, refurbishes, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational.
22. **Plastic waste Management Rules, 2016:** This provides for control and management of the plastic waste generated from any activity. Contractors will ensure compliance to this Rule.
23. **The Batteries (Management and Handling) Rules 2001:** This provides for ensuring safe disposal and recycling of discarded lead acid batteries likely to be used in any equipment during construction and operation stage. Rules require proper control and record keeping on the sale or import of lead acid batteries and recollection of the used batteries by registered recyclers to ensure environmentally sound recycling of used batteries. Contractors will ensure compliance to this Rule.
24. **The Ozone Depleting Substances (Regulation and Control) Rules, 2000 and as amended:** This provides for regulation of production and consumption of ozone depleting substances in the country, and specifically prohibits export to or import from countries not specified in the Rules, and prohibits unless specifically permitted, any use of ozone depleting substance.
25. The Coastal Regulation Zone Notifications, 1991 and as amended: Not applicable.
26. The Motor Vehicle Act 1988 as amended (and State Motor Vehicle Acts as may be in force) and the Motor Vehicle Rules, 1989, and as amended (and State Motor Vehicle Rules as may be in force): To minimize the road accidents, penalizing the guilty, provision of compensation

to victim and family and check vehicular air and noise pollution. Contractors will be required to ensure full compliance to these rules.

27. **Easement Act, 1882:** This provides for the rights of landowners on groundwater. Contractors will need to ensure that other landowners' rights under the Act is not affected by any groundwater abstraction by the contractors.
28. State Groundwater Acts and Rules as may be in force and the Guidelines for Groundwater Abstraction for drinking and domestic purposes in Notified Areas and Industry/Infrastructure project proposals in Non-Notified areas, 2012: These provide for purposes. Contractors will need to obtain permission from Central/State Groundwater Boards prior to groundwater abstraction through digging any bore well or through any other means; and will ensure full compliance to these rules and any conditions imposed in the permit.
29. **The Mines Act, 1952 as amended;** the Minor Mineral and concession Rules as amended; and the State Mineral (Rights and Taxation) Acts as may be in force: These provide for safe and sound mining activity. The contractors will procure aggregates and other building materials from quarries and borrow areas approved under such Acts. In the event the contractors open any new quarry and/or borrow areas, appropriate prior permission from the State Departments of Minerals and Geology will need to be obtained. Contractors will also need to ensure full compliance to these rules and any conditions imposed in the permit.
30. **The Insecticides Act, 1968 and Insecticides Rules, 1971 and as amended:** These provide for regulates the manufacture, sale, transport, distribution, export, import and use of pesticides to prevent risk to human beings or animals, and for matters connected therewith. No one should import or manufacture; sell, stock or exhibit for sale; distribute, transport, use: (i) any misbranded insecticides, (ii) any insecticide the sale, distribution or use of which is for the time being prohibited under the Act; and (iii) any insecticide except in accordance with the condition on which it was registered under the Act.
31. **National Building Codes of India, 2016 and as amended:** This provides guidelines for regulating the building construction activities in India. The code mainly contains administrative regulations, development control rules and general building requirements; stipulations regarding materials, structural design and construction; and building and plumbing services. Contractors will be required to comply with all Bureau of Indian Standards Codes dealing with: (i) use and disposal of asbestos containing materials in construction; (ii) paints containing lead; (iii) permanent and temporary ventilations in workplace; (iv) safety, and hygiene at the workplace; (v) prevention of fire; (vi) prevention of accidents from faulty electrical gadgets, equipment and accessories; and all other such codes incidental to the Contract.



## Appendix-2 to Part I General Condition of Contract

### Tables of Adjustment Data

(Cl. 41 of GCC)

TO BE WORKED OUT PACKAGE TO PACKAGE, Employer may work out for 4 – 5 packages

**Table 1: Coefficients governing the adjustment for changes in cost.**

S. No.	Coefficients Name	Symbol										
			S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
1.	Fixed	a	15	15	15	15	15	15	15	15	15	15
2.	Labour [L]	b	20	35	20	10	10	10	25	15	20	25
3.	Steel [S]	c	-	-	-	-	-	5	-	2	3	-
4.	Cement [C]	d	-	-	-	2	-	10	-	5	7	-
5.	Plant & Equipment spares [E]	e	20	15	28	25	20	15	-	8	25	-
6.	Diesel and Petroleum Products [D]	f	30	15	25	18	15	10	-	5	10	-
7.	Bitumen [B]	g	-	-	-	-	15	-	-	-	-	-
8.	Others [O]	0	15	20	12	30	25	35	60	50	20	60
	<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

[Fixed element is normally 15%]

#### SCHEDULES

[The following Schedules are for example only. The schedules may be modified and specified as appropriate for each work]

Schedule 1: General Item

Schedule 2: Site Clearance, Dismantling,

Schedule 3: Earthwork

Schedule 4: Road Works – Non-Bituminous

Schedule 5: Road Works – Bituminous

Schedule 6: Drainage and protection works

Schedule 7: Road safety Measures

Schedule 8: Bus Bay and truck lay Bye.

Schedule 9: Non-Schedule/Special Provisions (For the Purpose of current project i.e. Office Cum MLCP at Mawkhar)

Schedule 10: Environmental Works

**Table 2: Cost Indices and Reference Prices (applicable for specific items) for adjustment in contract prices [as per GCC 41].**

WPI with base 2004-2005 = 100 on the Base Date

Base Date = Quarter of the calendar year falling just after the Deadline for submission of bids

S. No.	Cost Element	Symbol	Indices or Cost on the Base Date	Index for adjustment	Sources of Index
[1]	[2]	[3]	[4]	[5]	[6]
1.	Fixed	a			
2.	Labour	b	Lo- all India average Consumer Price Index (CPI) Number for Industrial Workers for Guwahati Centre <sup>8</sup> (Base 2001 = 100) on the base date.	Ln-CPI for the quarter end for which the IPC is related	Labour Bureau, Ministry of Labour and Employment, Government of India.
3.	Steel	c	So – Whole-sale Price Index (WPI) for Steel [Steel/ Long]	Sn-WPI for the quarter end which is two months prior to the month to which IPC is related	Economic Advisor, Ministry of Commerce and Industry, Government of India.
4.	Cement	d	Co-WPI for Grey Cement	Cn-WPI for the quarter end to which IPC is related,	Economic Advisor, Ministry of Commerce and Industry, Government of India
5.	Plant & Equipment spares	e	Eo-WPI for “Construction machinery”	En – WPI for the quarter end to which IPC is related	Economic Advisor, Ministry of Commerce and Industry, Government of India
6.	Diesel <sup>9</sup>	f	D <sub>o</sub> -Unit Cost from the identified depot on the base date	D <sub>n</sub> -Unit Cost for on the first day of the quarter to which the IPC relates	From the Guwahati Depot
7.	Bitumen <sup>10</sup>	g	B <sub>o</sub> -Unit Cost from the identified refinery on the base date	B <sub>n</sub> - Cost per unit quantity on the first day of the quarter in which the material is brought to site or two months prior to the date to which IPC is related	From Guwahati Refinery
8.	Others	h	O <sub>o</sub> - All India Wholesale Price Index (WPI) for all commodities	O <sub>n</sub> - All India WPI for all commodities for the quarter end to which IPC is related	Economic Advisor, Ministry of Commerce and Industry, Government of India

<sup>8</sup> The Centre to be specified should be the relevant one for which CPI is published by the Labour Bureau.

<sup>9</sup> The Contract Data specifies the identified depot for the rate of diesel for the base date and the applicable date for price adjustment.

<sup>10</sup> The Contract Data specifies the identified refinery for the rate of Bitumen for the base date and the applicable date for price adjustment.

## PART – II SPECIAL CONDITIONS OF CONTRACT

These Special Conditions of Contract (SCC) shall be read in conjunction with General Conditions of Contract including Contract Data and all Appendix, Instructions to Bidders (ITB) including Appendix to ITB, Notice Inviting Tenders (NIT), Tender Drawings, Scope of Work and Technical Specifications and other Documents as part of the Bidding Documents.

### **1. Procurement of materials**

While procuring a particular material, the Contractor shall comply with the provisions of the following Order(s) by the Department of Promotion of Industry and Industrial Trade (DPPIT), (Public Procurement Section), Ministry of Commerce and Industry, Government of India:

Public Procurement (Preference to Make In India) Order 2017 (PPP-MII) on 15th June 2017 as amended vide DPPIT Order No. P-45021/2/2017-PP (BE-II) dated 4th June 2020.

### **2. Labour:**

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Employer, deliver to the Employer a return in detail, in such form and at such intervals as the Employer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Employer may require.

### **3. Compliance with labour regulations:**

During continuance of the contract, the Contractor shall abide at all times by all existing labour enactments and rules made thereunder, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Among other things as mandated by various Acts/Rules & Regulations/Notifications, the Contractor shall provide labour hutment with proper water supply and sanitation system including toilet (water closet and bath) and kitchen facility. All labour records/registers are to be maintained at site as per norms. The same shall be made available to the Employer as and when directed. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, Employer shall have the right to deduct any money due to the Contractor including his amount of security deposit. The Employer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor in no case shall be treated as the employees of the Employer at any point of time.

### **4. Protection of Environment:**

The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation. During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government

or the local authority. The Contractor shall submit Environmental Management Plan (EMP) and its monthly compliances.

**Monitoring Requirement & Specifications**

SN	Monitoring Requirements	Specification	Responsible agency
1.	Noise levels at the construction sites (only during construction period)	Monitoring at all location's hourly basis for 24-hour period. Once every season of the year during construction period.	Contractor
2.	Disposal of construction debris	Periodic inspection at sites for construction debris for safe collection and disposal to identified land fill sites.	Contractor
3.	Traffic and Transportation	Measures for diverting the traffic during construction across roads adjacent to the construction site (if required)	Contractor in consultation with SSCL and Shillong Traffic Police
4.	Domestic sewage and refuse management at the labour camps and construction sites	Check for adequacy of sanitation arrangements at the labour camps	Contractor
5.	Water Pollution	Check for: Blockage of flowing water which may lead to stagnation of water Soil erosion due to construction activities leading to contamination and siltation of water bodies. Water contamination due to use of fuel and lubricants at the construction sites.	Contractor
6.	Procurement of construction material	Check that procurement of construction materials should be only from permitted sites and quarries.	Contractor

Location of Noise monitoring shall be wherever the Contractor decides to locate the equipment yard. In case of noise levels causing disturbance to the sensitive receptors, management measures as suggested in the EMP shall be carried out.

The implementation of Mitigation Measures is the responsibilities of the Contractor /Employer. However, it may be noted that implementation of all the measures is full responsibility of Contractor. The Employer would be responsible only for monitoring/supervision/guidance, etc.

**5. Safety:**

The Contractor shall be responsible for the safety of all activities on the Site. The activities shall include, but not limited to, excavation, trenching, demolition, provision of scaffolding, ladder, steel structure works, working platforms, gangways, mixing asphaltic materials, electric arc/ gas welding, installations of electrical components, use of hoist and construction machinery etc. The Contractor shall be governed by relevant provisions of safety code and as directed by the Engineer. The contract quotation shall be deemed to include all costs of compliance with safety requirements in the Specifications. The Contract Price shall be deemed to include all costs on account of traffic diversions (if required) and all such hidden assessment/ items, which are not listed to entire satisfaction of Engineer.

Some of the common safety rules to be followed during working are as follows:

- i. Nobody is allowed to enter at construction site without Safety Shoes.
- ii. Never enter work area without Safety helmet & chin strap in place.

- iii. No climbing/working allowed without proper safety belt above 2 m. height.
- iv. Do not exceed the speed limit 25 Kmph within Premises.
- v. No debris obstacles allowed on the roads & passages.
- vi. Do not walk on pipelines or false ceiling.
- vii. Maintain good Housekeeping at work site.
- viii. No photography/ Videography allowed without permission.
- ix. All Site supervisors & engineers must be imparted structured training on construction safety before start of the job & record to be maintained.
- x. Availability of qualified & trained Site Engineer at site during all working hours.
- xi. Site Safety training to be imparted to all workers & plan to be made to cover every worker.
- xii. Tools box talk (5-15 minutes) by supervisor prior to commencement of any job.
- xiii. All accidents / incidents (Near Miss) to be reported & investigated (formats & procedure should be submitted to the Engineer for approval).
- xiv. Daily Safety Checking by Each Site Engineer along with Safety engineer.
- xv. Weekly co-ordination meeting of all Safety engineers with the Employer's representative.
- xvi. Monthly safety meeting with Site In-charges.
- xvii. All Safety equipment must be ISI marked & checked by Safety officer before use.
- xviii. Tag system for erection & use of scaffoldings.
- xix. LPG cylinders not allowed for gas cutting.
- xx. Separate waste bins to be used for flammable & non-flammable material.
- xxi. Safety awareness programs for workers by display of boards, posters, competitions, talks etc.
- xxii. Deployment of Safety Supervisors for every 250 workers and part thereof at work site.
- xxiii. Display of List of First Aid trained persons.
- xxiv. Testing certificates for lifting tools & tackle.
- xxv. Provision & maintenance of fire extinguishers at construction site & material stores.
- xxvi. Display of emergency telephone numbers at various locations.
- xxvii. For work in confined space use 24 V lamp fitting & use tools with air motors or electric tools with max. 24 V.
- xxviii. For confined space entry Gas test must be done before & at regular intervals.
- xxix. Checking & tag of equipment like grinding machine, welding machine, gas cutting set etc. by supervisors before use.
- xxx. All portions of the site should always have sufficient level of illumination.
- xxxi. Provision of DG backup at site.

#### **6. Damages:**

The work is in the urban area and underground utilities are already laid in the area of the project work. The Contractor will ensure that no damages are caused during execution of work to any property, government, or semi government or private. However, if during execution, any public utility services such as cables, pipes, or property (private or government or semi government etc.) such as boundary wall, gate, fencing, walls of building etc. are damaged by the Contractor or its representative, the same shall be repaired or replaced or reconstructed and shall be put into use by the Contractor at his own cost for which no extra payment shall be made by the Employer. If the Contractor does not repair or replace the damaged utility or property, the Employer may request to the line department or owner of the property to repair or replace at the risk and cost of the Contractor and the amount paid to the line department or the owner of the property by the Employer or the invoice submitted by line department or the owner of the property shall be recovered from the Contractor's RA or Final bill or from the performance security or in combination of all, as per the amount to be recovered, as the case may be.

**7. Death of a Contractor:**

In the case of death of a Contractor after executing / commencement of the work, his legal heir, if an eligible registered Contractor and willing can execute and complete the work at the accepted tender rates irrespective of the cost of work.

**8. Establishment of Field laboratory (Clause 32.1 of GCC):**

The Contractor shall establish the field-testing laboratory (land is to be arranged by the Contractor) within One Month from the date of Signing of Contract agreement and/or shall make an agreement as approved by the Employer for performing the test. The tests shall be witnessed by the Employer and/or Employer's representative.

**9. Defect Liability Period:**

- a. The Defects Liability Period is **twelve (12)** months from the date of issue of Completion Certificate of the project.
- b. The Employer shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The Employer shall afford all reasonable opportunity for the Contractor to inspect any such defect.
- c. The Employer shall afford the Contractor all necessary access to the Facilities and the Site to enable the Contractor to perform its obligations under this clause.
- d. The Contractor may, with the consent of the Employer, remove from the Site any part of the work/equipment/Facilities that are defective if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.
- e. If the repair, replacement, or making good is of such a character that it may affect the efficiency of the Facilities or any part thereof, the Employer may give to the Contractor a notice requiring that tests of the defective part of the Facilities shall be made by the Contractor immediately upon completion of such remedial work, whereupon the Contractor shall carry out such tests.
- f. If such part fails the tests, the Contractor shall carry out further repair, replacement, or making good, as the case may be, until that part of the Facilities passes such tests. The tests shall be agreed upon by the Employer and the Contractor. All such tests shall be carried out at the Contractor's own cost.
- g. If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) days), the Employer may, following notice to the Contractor, proceed to do such work with or from the third party, and the costs incurred by the Employer in connection therewith shall be recovered from the Contractor or may be deducted from any amount due to the Contractor or claimed under the Performance Security.
- h. If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities, or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons.
- i. In addition, any such component of the Facilities and during the period as may be specified in the SCC shall be subject to an extended Defect Liability Period. Such obligation of the Contractor shall be in addition to the Defect Liability Period specified under this SCC Sub-Clause.

## 10. Project Duration

Description of Activity	Time Period
Construction	Twenty-Four (24) Months (including monsoon period) from the date of issue of Notice to Proceed
O&M Period	5 years after which commences after completion of MLCP works.
Defect Liability Period	365 days from the date of issue of Completion Certificate

### 10.1 Extension of Project Duration:

Subject to successful performance of the Contractor as per the service level agreements during the contract period, the Employer at its sole and absolute discretion can extend the O&M period for a term as mutually decided (maximum up to 5 years) by issuing a notice to the Contractor by no later than 3 (three) months prior to the date of expiry of the Contract Period. Provided that in the event of an extension, the provisions of this Agreement shall apply mutatis mutandis to the extended Contract Period.

## 11. DETAILS OF PAYMENT SCHEDULE

The Chief Executive Officer of SSCL shall have full powers to fix interim rates within the components. In case of any deviation/alternations/modifications of methodology leading to change in components or its quantity or incorporation of new items of work, the Chief Executive Officer shall have full powers to revise the breakup components keeping the contract price same as quoted by the bidder.

### 11.1 PAYMENT SCHEDULE FOR MULTI LEVEL CAR PARKING CUM OFFICE COMPLEX

Surveying, soil test, planning, investigation, sub-soil exploration, fixing layout, designing, drawing, and supply, installation, erection, and commissioning of Mechanized multilevel Smart parking for minimum 70 Nos. of ECS (Four-Wheeler) Parking and construction of Office Complex works.

- Upon receiving a report from the SSCL certifying the achievement of the below mentioned Payment Milestones.
- The payment shall be payable as per the Payment Milestone given below during Construction Period shall be as under:

S.No.	Stages of Work	Percentage of "contract price"	
<b>I.</b>	<b>Design and Drawings</b>		
a)	Submission and approval of survey, site investigation, layout, design-drawing, etc. for Construction of Office Complex works along with finishing works, electrical and mechanical works, firefighting, plumbing systems, and supply, installation, erection and commissioning of mechanized multilevel car parking and other smart solutions including ticket counters, control room, firefighting system arrangements, ventilation, civil etc. by SSCL.	5%	5%
<b>II.</b>	<b>Civil Works (for Office Complex and MLCP)</b>		
<b>1</b>	<b>Structure Works</b>		
a)	Dismantling of existing structure and preparation of sites including barricades and safety measures	30%	3.50%
b)	After completion of Ground Floor slab including foundation as per the approved design and drawings.		10.00%
c)	After completion of stilt floor (S, S1, S2 & S3) slab (till 2 <sup>nd</sup> floor roof)		7.50%
d)	After completion of 3 <sup>rd</sup> floor roof		3.00%
e)	After completion of 4 <sup>th</sup> floor roof		3.00%
f)	After completion of 5 <sup>th</sup> floor roof		3.00%

S.No.	Stages of Work	Percentage of "contract price"	
<b>2</b>	<b>Finishing Works – After completion of plastering, painting, door window, flooring, electrical conduits, plumbing, firefighting, and other finishing works</b>		
a)	After completion of stilt floor (S, S1, S2 & S3) slab (till 2 <sup>nd</sup> floor roof)	<b>15%</b>	5.00%
b)	After completion of 3 <sup>rd</sup> level		3.00%
c)	After completion of 4 <sup>th</sup> level		3.00%
d)	After completion of 5 <sup>th</sup> level		4.00%
<b>III</b>	<b>Electrical and mechanical works</b>		
a)	After Completion of all electrical and mechanical works including Water Tanks (including RWH), STP, fire tanks etc. as per approved design-drawing, specifications of relevant I.S. Codes.	<b>7.50%</b>	2.50%
b)	After completion of all electrical and mechanical works including RWH system, Water pumps, firefighting system, and Rooftop Solar PV installations etc. as per approved design- drawing, specifications of relevant I.S. Codes.		2.50%
c)	After completion of all electrical and mechanical works including lifts, installation of DG sets, UPS, CCTV system, PA System, LAN, IP BASED EPABX SYSTEM, Conference room installations, control rooms, IBMS installations as per approved design- drawing, specifications of relevant I.S. Codes.		2.50%
<b>IV</b>	<b>External Development works</b>		
	Completion of External Development works including compound wall, gates, internal roads/ pavement, street lighting, LED signage and landscaping etc.	<b>2.50%</b>	2.50%
<b>V</b>	<b>Handover of Office floors</b>		
a)	After request for inspection to check completion of all works for Office floors along with lobby, lift and staircase area including civil, electrical, firefighting, plumbing and other smart solutions works.	<b>5.00%</b>	2.50%
b)	After handing over the all completed Office floors along with lobby, lift and staircase area including civil, electrical, firefighting, plumbing and other smart solutions works.		2.50%
<b>3</b>	<b>For Mechanized multilevel parking with minimum 70 Nos. Parking</b>		
a)	After completion of Steel Structure Work at all level	<b>35%</b>	15.00%
b)	After completion of installation of motors, Drum & Sprocket, Pulley, Sensors, and Electrical works along with other parking related equipment and accessories		10.00%
c)	After pre-commissioning of the Car Parking along with software / hardware components with Smart Parking solutions (CCTV system, website/ mobile apps etc.), LED signages, ticket counters, control room to make the parking system operational as per approved design-drawing, specifications of relevant I.S. Codes.		5%
d)	After Successfully commissioning of operations for MLCP.		5%
	<b>Total</b>	<b>100%</b>	<b>100%</b>

Note: 5% of the payment shall be deducted for security deposit on each payment and will be released after one year of defective liability period which commences after completion of construction work and issue of completion certificate by Engineer in Charge.

- Provided that in case of Change of Scope, the Physical Progress shall be recalculated to account for the changed scope.



- In case, there is a delay in achieving the Milestone due to reason attributed to client, the payments shall be made on prorata basis of the particular milestone.

**12. Basic conditions to be followed by the Contractor**

- i. The earth works for excavation as per design prepared by contractor is for all leads, lifts and filling the same, and nothing extra will be paid on account of lead and lifts.
- ii. The Contractor to arrange for emergency vehicle/staff vehicle.
- iii. The Contractor shall make his own arrangement for obtaining electric connection required for execution of work and make necessary payments directly to the concerned departments and nothing extra shall be payable on this account.
- iv. The Contractor shall make his own arrangement for water suitable for construction work as well as drinking and other purpose for the labour engaged by him for the execution of the work.
- v. The water for construction work shall be got tested quarterly from the laboratory approved by the Engineer to ensure its suitability for construction. The charges for these tests and related arrangements shall be borne by the Contractor. In the event of water found unsuitable for construction, the Contractor shall make alternative arrangement for suitable water from any other source to the satisfaction of the Engineer.
- vi. The Contractor shall provide, at his own cost instruments for surveying, weighing, and measuring purpose at the site of work as may be necessary for execution of the work.
- vii. The Contractor shall submit to the Engineer samples of all materials for approval. Such samples of materials which affect aesthetics of the work shall also be got approved from the Engineer before procuring bulk supplies. These approved samples shall be preserved and retained in the custody of the Engineer as standards of materials till the completion of the work. The cost of such samples shall be borne by the Contractor and nothing shall be payable on this account over the Agreement rates.
- viii. Because of security consideration, some restrictions may be imposed by the security staff on the working and/or movement of men and materials etc. The Contractor shall be bound to follow all such restrictions/instructions and he shall organise his work accordingly. No claim on this account, whatsoever, shall be payable.
- ix. The work of water supply, internal sanitary installations and drainage work etc. shall be carried out as per the applicable Building Bye Laws of SMB or MUDA and the Contractor shall produce necessary completion certificates, wherever required, from such authorities after completion of work. If nothing is stipulated in the local Building Bye Laws, then applicable CPWD Specifications, failing which, applicable IS Codes (including National Building Code) will be applicable.
- x. Water tanks, taps, pipes, fittings and accessories shall conform to applicable Building Bye Laws of SMB or MUDA. If nothing is stipulated in the local Building Bye Laws, then applicable CPWD Specifications, failing which, applicable IS Codes (including National Building Code) will be applicable. The Contractor should engage licensed plumbers for the work and get the materials, fixtures and fittings tested by SMB/MUDA as applicable and wherever required, at his own cost and nothing extra shall be payable
- xi. All the pre-construction approvals are to be obtained by the Employer. If any approvals are pending at the time of award of work, the Contractor will assist in getting clearance done from appropriate authorities. The fee for such clearances, if paid by the Contractor, (limited to statutory fee levied by the concerned public authority. Administrative expenses shall not be included in this) shall be reimbursed after production of receipt.
- xii. All approvals during construction stage and commissioning phase are to be obtained by the Contractor at his own cost.

- xiii. The Contractor shall use materials bearing ISI Certification Mark unless otherwise specified or allowed in writing by the Engineer. Any material banned by any central/state/local public authority shall not be used in the work.
- xiv. The Contractor shall be required to get all the tests as per the specifications/IS codes, carried out on materials/work from an approved laboratory as per the direction of the Engineer. The testing charges and conveyance from the site shall be borne by the Contractor.
- xv. In case any material/ work is found sub-standard the same shall be rejected by the Engineer and the same shall be removed from the site of work within 48 hours, failing which the same shall be got removed by the Engineer at the risk and cost of the Contractor without giving any further notice and time. If it is found that even after reconstruction of the material/work (i.e., after removal and again constructing it), the same is sub-standard, the Employer will have right to impose penalty as the Employer deems appropriate.
- xvi. Even ISI marked materials may be subjected to quality test at the discretion of the Engineer. Whenever ISI marked materials are brought to the site of work, the Contractor shall, if required by the Employer, furnish manufacturer's test certificate or test certificate from approved testing laboratory to establish that the materials procured by the Contractor, satisfy the provisions of relevant IS codes. The testing charges shall be borne by the Contractor. However, cement/steel will be necessarily tested before start of work and also during the execution of work as per the requirements of specifications and will not be used till test certificates are obtained and approved by Engineer.
- xvii. The Contractor shall be responsible for completing the work and for satisfying all terms and conditions of the Contract without any extra payment over his quoted rates unless otherwise specified. The Contractor shall quote his rates for various items of work accordingly and no claim whatsoever shall be entertained for any incidental or extra work involved in the execution of the work as per nomenclature of the item and the specifications indicated in the tender documents.
- xviii. The Contractor shall give a satisfactory performance test of installations individually and as a whole to ensure their proper functioning before the work is finally declared completed and accepted.
- xix. The Contractor shall protect the adjoining buildings or works and the work under execution from fire and shall make adequate arrangements for fire protection and firefighting and if any property is damaged, by fire due to the negligence of the Contractor, the same shall be rectified by the Contractor at his own cost, to the entire satisfaction of Engineer.
- xx. The Contractor shall provide adequate lighting arrangements as approved by the Engineer for carrying out the work during night-time, if so required and also provide all other facilities for the labour employed to carry out the work as per direction of Engineer.
- xxi. In order to achieve the targeted date of completion the Contractor may have to work in multiple shifts, round the clock and nothing extra shall be paid on this account.
- xxii. The Contractor shall be responsible for all statutory provisions and deductions towards ESI, PF or any other, as the case may be, or any other levies and taxes shall be borne by the Contractor. The TDS and Contract Tax or any other statutory levies/ taxes incorporated from time to time shall be deducted progressively from the running account bills, as applicable at the time of payment. No claim in this regard shall be entertained.
- xxiii. For any clarification/ doubt, the Employer may organize regular meetings with Contractor. The Concerned representative of the Contractor who is aware of all the aspects of the project shall attend such meetings invariably as and when required.

- xxiv. The Contractor shall arrange for own office space/storage space for his use and same shall not to be provided by the Employer.
- xxv. The Contractor shall prepare and produce instruction, operation, and maintenance manuals in English for the use, operation and the maintenance of the supplied equipment and installations and submit to the Engineer in (5) hard copies and the soft copy at the time of handing over. The manual shall generally consist of the following:
- a. Description of the project
  - b. Operating instructions
  - c. Maintenance instructions including procedures for Preventive maintenance
  - d. Manufacturers catalogues
  - e. Spare parts list
  - f. Trouble shooting charts
  - g. Drawings
  - h. Type and routine test certificates of major items.
  - i. One (1) set of reproducible 'as built' drawings on polyester film.
- xxvi. The Contractor shall employ competent fully licensed/ qualified, plumber for the work of PLUMBING/SANITARY installations in accordance with the drawings and specifications. The licensed plumber shall always be available at site to receive instructions from the Engineer in the day-to-day activities throughout the duration of execution of plumbing/ sanitary work.
- xxvii. All spaces allotted to the Contractor, as described above shall be vacated and all structures removed from site at any time as and when required and directed by the Engineer, unconditionally and without any reservation. The Engineer will not be obliged to give any reason for such removal. Upon receiving instructions to vacate the space, the Contractor shall immediately remove all his structures, materials, etc. from the sources and clear and clean-up the site to the satisfaction of the Engineer.
- xxviii. It shall be the responsibility of the Contractor to safeguard the site and ensure that no illegal encroachments are made by outside elements within the area allotted to the Contractor. Upon completion of the work or earlier as required by Engineer, the Contractor shall vacate the land totally without any reservation.
- xxix. The Contractor will arrange to erect, at his own cost, barricading as per norms of NGT/CLIENT around the infrastructure site, with entry/ exit gates at suitable points. The Contractor shall, at his own cost, provide and erect suitable fencing around the spaces allotted to him at the infrastructure sites to ensure the security of his men, materials and equipment within the sites and in relation to other Contractors who will also be allotted spaces at above sites.
- xxx. The security of workmen, materials, equipment stores etc, within the area allotted to the Contractor shall be the responsibility of the Contractor.
- xxxi. Manufacturer's Warranties:
- a. The Contractor shall ensure that all the manufacturer's warranties are made available to the Employer and the legal documentation between the Contractor and the Supplier must have a transparent pass through of the warranty benefits to the Employer as the user/maintenance Body of the Asset for the entire duration of each available warranty.
  - b. The Contractor shall provide a Warranty that the material is new and free from all defects and faults in workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for

materials of the type ordered and shall perform in full conformity with the specifications and drawings.

- c. The Contractor shall be responsible for any defects that may develop under proper use but arising from faulty materials, design or workmanship and shall remedy such defects at its own cost, or get them remedied from the supplier, when called upon to do so by the Employer, who shall state in writing in what respect the material is faulty. This warranty shall survive inspection and acceptance of material but shall expire twenty-four months after the date of issue of Defect Liability Certificate, except in respect of complaints notified prior to such date.
- d. If it becomes necessary for the Contractor, or on its behalf by the supplier, to replace or renew any defective portion/portions of the material/equipment supplied in the work, the provisions above would also apply to the portion/portions of materials so replaced or renewed until the end of the aforesaid period of twenty-four months, whichever may be later. If any defect is not remedied within a reasonable time, the Employer may proceed to do the work at the Contractor's risk and cost but without prejudice to any other rights which the Employer may have against the Contractor in respect of such defects. However, for such components, which require immediate replacement, the Employer shall act, and the Contractor shall be required to reimburse that cost.

xxxii. **Witnessing of Tests by the Engineer:** The Contractor shall make under the direction and in the presence of Engineer, such tests and inspections as have been specified or as the Engineer shall consider necessary to determine whether or not the full intent of requirements of the specifications and the other related contract documents have been fulfilled. In case the work does not meet the full intent of the specifications and the other related contract documents it shall be rectified by the Contractor at no extra cost and the Contractor shall bear all the expenses for any further tests considered necessary.

xxxiii. **Inspection of materials & Equipment:** The Contractor before supplying of any materials/equipment shall give an inspection notice well in advance for inspection & testing of the same at the manufacturing units/ shop. The expenditure on account of TA/ DA of inspecting officials of the Employer and its representatives including Consultants for the inspection of the said items shall be borne by the Contractor. However, inspection report issued by the inspecting officials representing the Employer should not be treated as a waiver of quality /performance of equipment & due quality/performance & successful commissioning of equipment is the responsibility of Contractor.

xxxiv. The final bill will be submitted by the Contractor within 90 days from the date of acceptance of completion of work accompanied by the following documents:

- a. Completion certificate issued by the Employer specifying the handing over of the work.
- b. Computerized Measurement.
- c. No claim certificate by the Contractor.
- d. 'As built' drawings and Operation and Maintenance manual
- e. Periodical/ milestone wise material/ measurement statements.
- f. Site order Register.
- g. Plant Record books.
- h. All operation and maintenance manuals.
- i. All statutory approvals from various State/Central Govt./Local Bodies /Owner if required for completion & handover of work.

- j. All test certificates of manufacturers and test conducted at site as well as outside agencies.
- k. "FINAL REPORT" of the completed project containing all Pre & other related details.
- xxxv. **Handing over of project:** The Contractor within 15 days from virtual completion of Project (after completion of O&M Period) including services shall prepare a list of all inventory including fitting & fixture and submit to the Engineer.  
The Contractor shall certify the following:
- That all payments towards labours and suppliers have been made,
  - That the site is free from all materials,
  - That the site is free from all machineries and equipment; and
  - That the site is clear from all debris.
- xxxvi. Along with monthly computerized milestone bills / final bill, the Contractor shall submit a monthly progress report showing various details, photographs of works etc. as per direction of the Engineer in two hard copies and soft copies. The Contractor shall also submit video-grapy of the site showing progress of work monthly. Please note that the running / final bill payment shall only be released after submission as aforesaid.
- xxxvii. Tender drawings/ design enclosed with the tender documents are indicatives only. However, the work shall be executed based on the design/ prepared by the Contractor and good for construction drawings issued at site from time to time and nothing extra shall be paid or no claim will be entertained if any GFC drawing varies from tender drawings.
- xxxviii. **Minor details of construction:** The Bid Price by the Contractor shall be deemed to cover for all the minor details / requirement of construction which may not have been specifically shown on the drawings or given in particular specifications but are required as per established engineering practice.
- xxxix. Documents for supply items: For supply items as required for construction of MLCP and Basement area, the Contractor shall submit the following documents to the Engineer:
- a) Warranty Cards.
  - b) Manufacturer's test certificate.
  - c) Any other test certificate from an external laboratory to determine the technical Specification.
  - d) Catalogues
  - e) Pollution Control Certificate.
  - f) Documents required for registration of vehicle with the local transport Authority and other interstate movement of vehicle.
  - g) List of recommended spares with specification and costs thereof.
  - h) Operation & Maintenance manuals.
- xl. The Contractor shall be bound to carry out and complete the stipulated work.

## **SECTION 5**

### **SCOPE OF WORK & TECHNICAL SPECIFICATIONS**

## 1. INTRODUCTION

### 1.1. The Objective:

To reduce the impact of the car on the townscape by restricting on- street parking to encourage pedestrian friendly roads by provision of dedicated multi-level car parking (MLCP) facility and development of Office Complex at Inspector of School, Mawkhar to provide new office building with all modern infrastructure in Shillong. Further this project also aims to satisfy the increase in demand in car parking space of the Shillong city.

### 1.2. Project site at Inspector of School, Mawkhar

The existing office building of Inspector of School, Mawkhar is very old and in dilapidated conditions with limited office space and infrastructure. It been on main road has no or very limited space for parking with in the premise leading to congestion on the road. The proposal is considering the prime locality of Bara Bazaar area.

#### a) Site Analysis:

The site is surrounded by retail shops with an area of 1051 sqm.

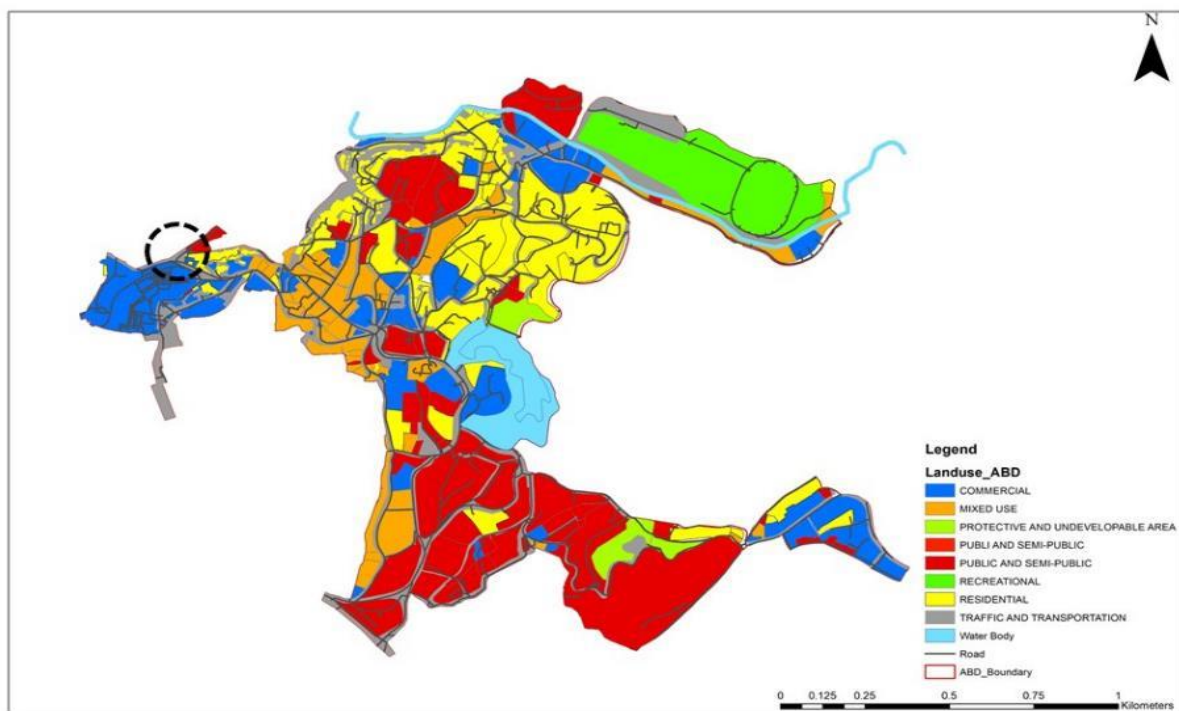


Figure 1: Land-use around the proposed new MLCP Cum Office Complex, Mawkhar Road

#### b) Accessibility & Physical features:

The site is located at the heart of lewduh (Bara Bazaar area), which experience heavy footfall and vehicular traffic. It has been observed that at times the Motphran Junction is converted to a non-U turn movement junction to ease traffic.

The accessibility to this road is only for vehicles coming from Mawkhar main road since it is a one way. Vehicles coming from Police Bazaar cannot manoeuvre directly towards the parking area and therefore they would have to move straight into the main market area. For this, vehicles coming from Police Bazaar side need to enter into Mawkhar Main Road from Shani Temple junction on GS Road.



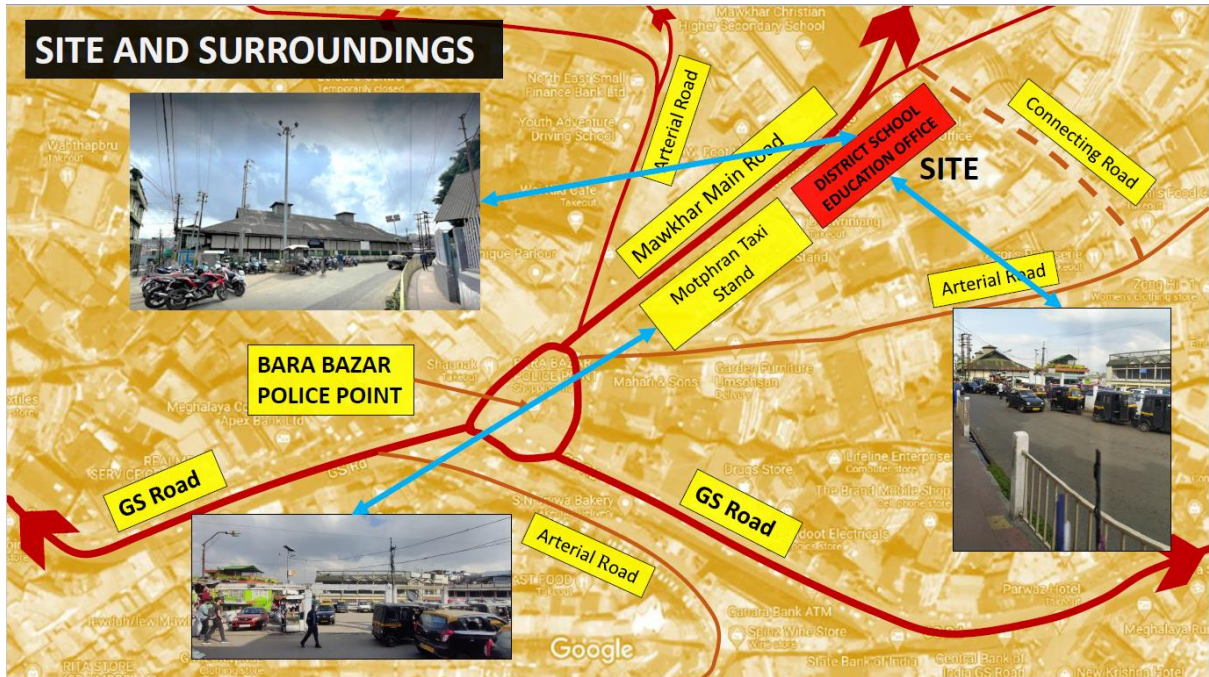


Figure 2: Location of the proposed MLCP Cum Office Complex

The site is surrounded by roads on 2 sides (Mawkhar Road in front and arterial road on left side) and buildings on 2 sides (Back and Motphran Taxi stand). The accessibility to the education department plot is also connected with Mawkhar main road adjoining Jowai. There is only one main entrance to this plot.



Figure 3: Site information of the Project site



Apart from the parking on the road level there is a single storey office space is constructed at Ground Floor in old Assam style. It is old construction of more than 30-40 years, hence has limited space and office infrastructure given the increased requirement of office space over the years. The existing building was constructed when Mawkhar Road was single lane, with increased widening of road the distance between building and road do not meet the minimum setback requirements also provides no or very limited space for parking of vehicles and the firefighting requirements etc. The photographs showing the exiting building are shown below.



**FIGURE 4: BUILDING OF INSPECTOR OF SCHOOLS FROM MAWKHAR ROAD**



**FIGURE 5: MAIN ENTRANCE GATE**



FIGURE 6: TRAFFIC CONGESTION IN FRONT OF BUILDING



FIGURE 7: MAIN CORRIDOR



FIGURE 8: OFFICE VEHICLE PARKED OUTSIDE ON MAIN ROAD



FIGURE 9: DELIPIDATED CONDITIONS

As mentioned above, the existing condition of this building is not good. Hence, the proposed new construction to develop this plot with Multi-level Car parking Cum Office Complex shall provide for increased office space building with all modern infrastructure and MLCP shall help in decongestion of traffic from Bara Bazar area in Shillong.

There is a potential scope for demand for parking within the said location since the locations exists in major commercial / tourist areas and all the major transportation nodes are in a walkable distance. All this functionalities / project site location / nearby land uses create a significant commercial potential for its operator. Thus, this project can result in a “win-win” situation for the citizens, government, and businesses.



## 2. PROPOSED DEVELOPMENT

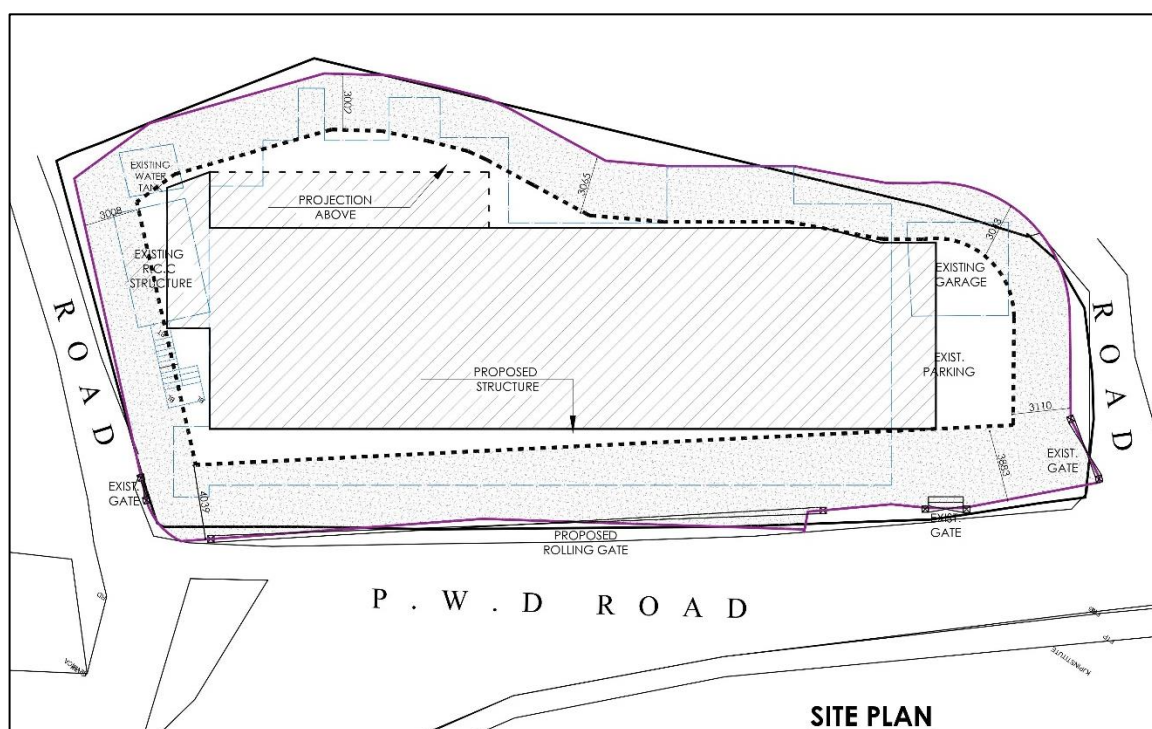
The Proposed development includes two following components:

- a. Construction of Office Complex with all modern office infrastructure facilities.
- b. Construction of Mechanized Fully Automatic Multi Level Car Parking (MLCP) Facility for 70 Nos. Car parking spaces; and

### 2.1. Office Cum MLCP Complex

The Proposed development is proposed on the plot area of 1051 sqm. The existing structure of about 630 sqm plinth area shall be dismantled before taking out the excavation and other project development works. The following figure shows the plot layout with existing structure plinth lines. It is to be noted that the design/ drawings given this document are preliminary and for tender purpose only. The detailed design and drawings after doing requisite surveys are responsibility of the Contractor.

Figure 10: Plot Layout



The proposed plinth area for MLCP Cum Office Complex development is show below:

S.No.	Parameters	Unit	As per Building By laws	Proposed
1.	Height of Building	Metre	21.0	21.0
2.	Height of MLCP	Metre	-	10.0
3.	No. of Floors including basement	Nos.	6	6
4.	Plot Area	Sq.m	-	1051
5.	Compound Wall/ Boundary	Metre	-	140
6.	Area under circulation (Internal Roads)	Sq.m	-	510.00
7.	Ground Coverage	%	60%	51%
8.	FAR (Maximum Permissible)	Sq.m	2	1.94

<b>S.No.</b>	<b>Parameters</b>	<b>Unit</b>	<b>As per Building By laws</b>	<b>Proposed</b>
9.	<b>Plinth Area</b>			
a	Ground Floor	Sq.m	-	537
b	Entrance lobby/ lift lobby - Side structure (1st and 2nd floor)	Sq.m	-	192
c	Office floors (3rd/ 4th and 5th)	Sq.m	-	1,586
d	<b>Total Plinth Area (Sq.m)</b>			<b>2,315</b>

**2.1.1. Construction at Ground level:**

1. Dismantling of existing building/ structures to clear the site for new construction.
2. Excavation and construction of foundations considering the load of Mechanised parking and upper 3 floors of the Office Complex are to be constructed along with all the required facilities such as Water Tank, Fire Tank, STP, Service Rooms for Electrical works and Toilet facilities for ladies/ gents/ physically handicapped people.
3. The Ground level external development including Compound wall, entry gates, internal roads, street lighting, CCTV Cameras, and landscaping shall be developed.
4. A stilt floor for MLCP of height approx. 10 m is proposed to be constructed along with G+2 floors of building with entrance lobby, lifts, two staircase (main and emergency), a small porch at entry to the upper floors of Office Complex.
5. Two control rooms, ANPR Cameras, boom barriers, along with ticketing infrastructure are to be provided to monitor the regular operations of MLCP functioning.
6. The toilets at the ground floor shall be used by MLCP as well as Office complex people. However, the maintenance of the same shall be responsibility of the Contractor as they will using them mostly.



### 2.1.2. Construction of two floors (1<sup>st</sup> & 2<sup>nd</sup> floors) at Stilt level:

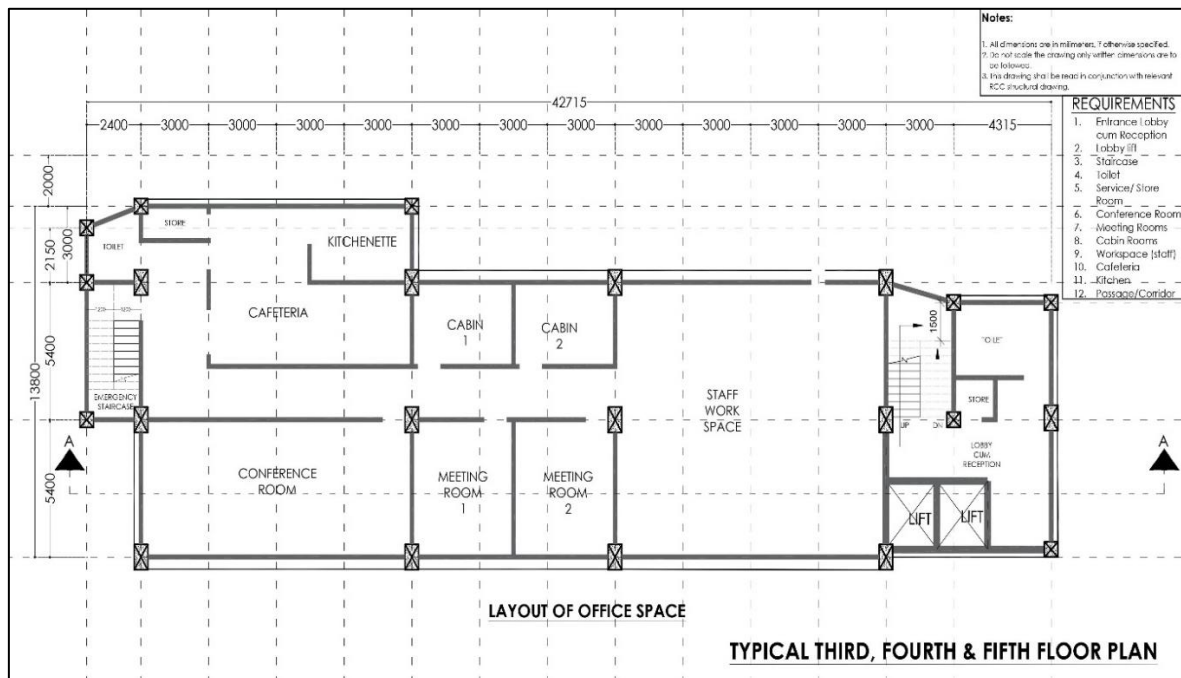
It is proposed to construct the two floors (1<sup>st</sup> & 2<sup>nd</sup> floors) on above the Ground floors entry lobby. This will have stairs, lift and space available for lobby/ shops to be decided during the design stage.

Entrance lobby/ lift lobby – Side structure is designed for Approx. 192 Sq.m of plinth area including lifts/ staircase at 1<sup>st</sup> and 2<sup>nd</sup> floor.

### 2.1.3. Construction of three Office floors (3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> floors):

A typical floors layout for Office Floors with total area of Approx. 1586 sqm (528 Sq.m at each floor) is shown below. It is to be noted that the shown layout is only for providing idea to the bidder/ contractor. The final layout shall be developed during the design stage. The Top floors shall have overhead water tanks and Rooftop Solar system.

Figure 12: Typical Layout for Office floors



The Development Shall include the following components but not limited to:

- Entrance Lobby cum Reception
- Lobby lift
- Staircase
- Toilet
- Service/ Store Room
- Conference Room
- Meeting Rooms
- Cabin Rooms
- Workspace (staff)
- Cafeteria
- Kitchen
- Passage/Corridor



## 2.2. MLCP for 70 Car parking Spaces

### 2.2.1. Preliminary Design

The proposal MLCP is to provide a total 70 car parking spaces across 4 automated levels under stilt (from Stilt, 1<sup>st</sup> Stilt, 2<sup>nd</sup> Stilt and 3<sup>rd</sup> Stilt) as shown below.

Figure 13: Ground Floor layout plan including Stilt floors

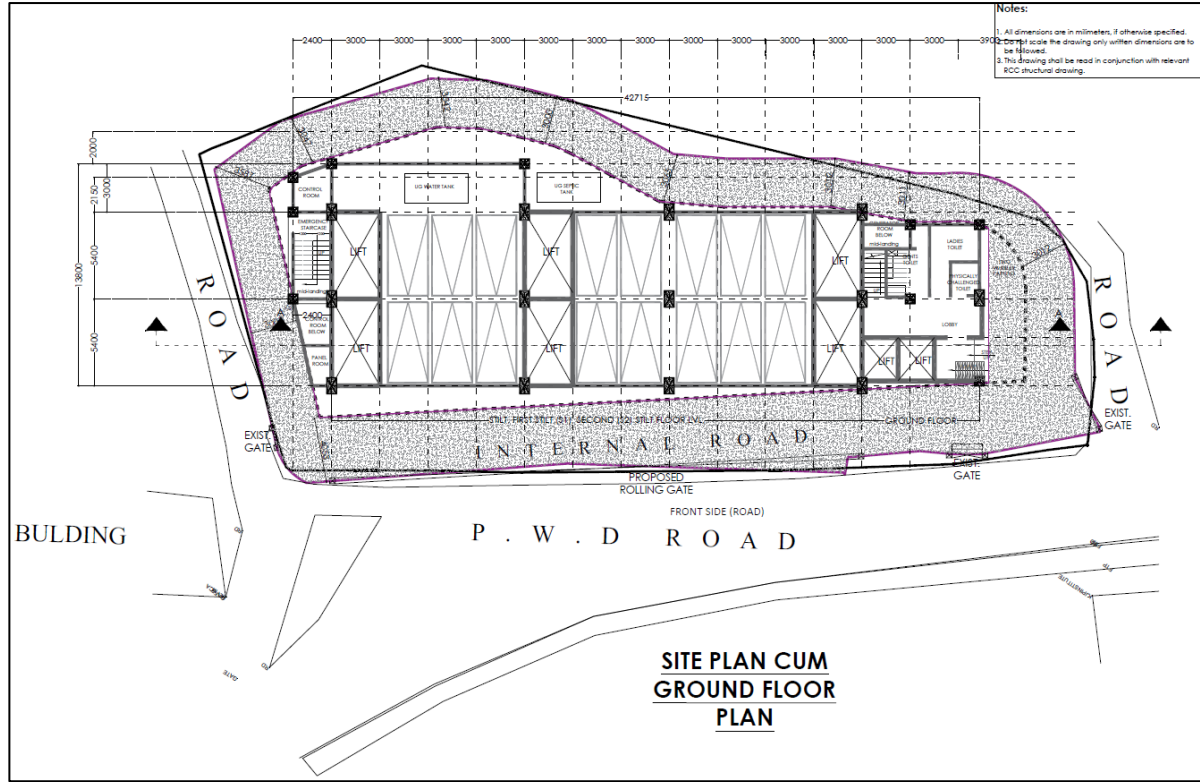
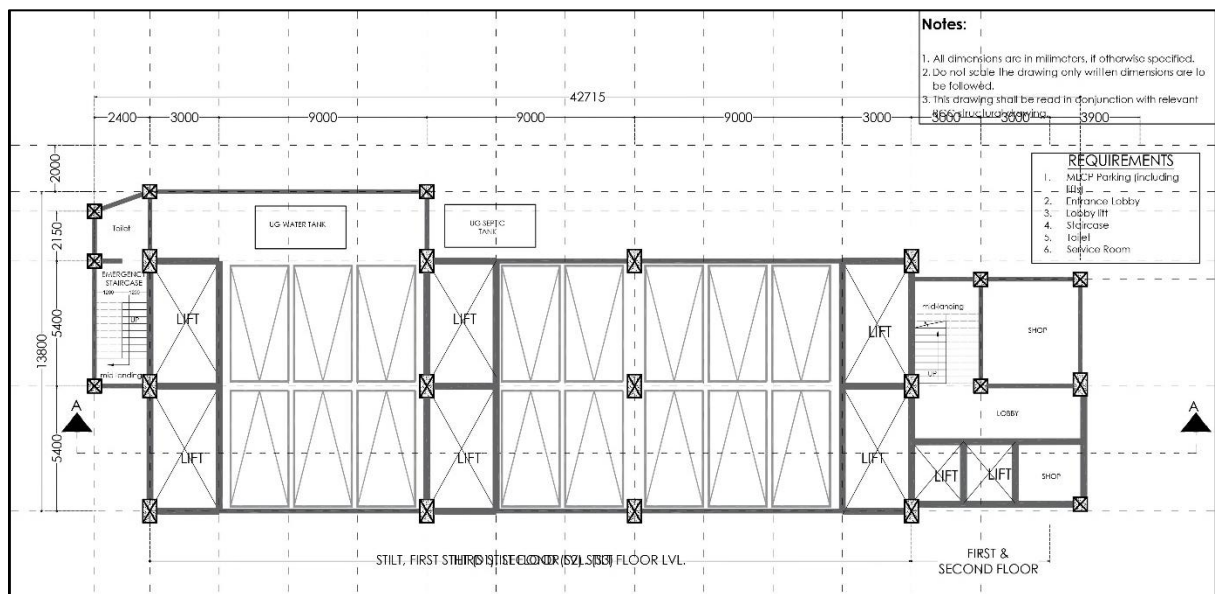


Figure 14: Typical parking layout plan



## 2.2.2. Requirement of the MLCP as per preliminary design

- Number of Automated Car Spaces = 70 Car Spaces
- Number of floors = 4 automated parking levels
- Height of the Parking system = 10.0 Meters.

All Floors Parking Spaces should be suitable for SUV & SEDAN Cars upto weight of 2300 Kg. As shown in the Ground Floor Level Plan, the area (in front of entry to office space) shall be used by SSCL/ Authority through separate entry and exit gate and shall be managed by SSCL/Authority.

An Operator room cum Security room along with requisite rooms for parking (entry and exit) are to be constructed. The laptops/ computers, LED displays (for camera), printers, UPS, ticketing machines and other requisite are to be provided in these rooms.

The MLCP Shall include the following components.

S.No.	Description of components of Project
<b>I</b>	<b>Mechanised Parking</b>
1	Steel Structure for Automated Car Spaces
2	Lifting/ Sliding Motor
3	Drum & Sprocket
4	Pulley/ Chain
6	<b>Electrical Systems including</b>
1	Drive/ PLC/ HMI/ Controller Unit
2	Wires and Cables
3	Transformer (100 KVA)/ Electrical Panel
4	DG Set (40 KVA) & Automatic Changeover (for parking lifts etc.)
5	UPS (10 KVA)
7	<b>Weather proof trifold sheet cladding (Glass/fibre glass) – 3 sides</b>
8	<b>Fire System including</b> Sprinklers System, OH Tank, Fire Stair & Walkway and DG set for fire system, sensors/ detector.
<b>II</b>	<b>Information Management and Surveillance</b>
1	Sensors
2	Boom Barriers (2 Nos.)
3	ANPR Cameras (2 sets)
4	CCTVs for Surveillance
5	PA System
6	Network Video Recorder (NVR) & Hard disk
7	Digital Sign Board (Visual Messaging Display)
8	Parking Management System with Mobile App and Website (With Backend System)
9	Network connectivity from at least two Telecom Service Providers
<b>III</b>	<b>Parking Operator Room (2 Nos.)</b>
1	Video Wall/ LED Display (Diagonal) 55" (inches)
2	Workstation (Core i7 / 16 GB RAM / 1000 GB HDD)
3	Printer(s)
4	Other Misc. (Furniture etc.)



### **3. OTHER REQUIREMENTS**

- SSCL shall provide the preliminary design of the MLCP with the bidder based on which the bidder will prepare the final detailed architectural and structural design and drawings
- The Contractor shall have to undertake Site surveys as per requirements, Geotechnical investigations/ Engineering Surveys, hydrological investigations, Underground Utility Surveying of the site for shifting and creating new, obtaining all required approvals from the relevant authorities.
- The monitoring system of the MLCP will be connected to the integrated Command and control centre to be set up under SSCL.
- The successful applicant shall be solely and exclusively responsible to Design, Engineering, Construct, Operate, Maintain & Transfer the proposed project on a DBOT model and to provide the services which would be defined in the RFP.
- The maintenance period will be of 5 years after the construction and commission of the MLCP. The Office Complex shall be handed over after the completion of construction works as per specifications.

### **4. SCOPE OF WORK**

The general scope of the work includes survey, design, site clearance, procurement of materials, construction of all civil & electrical works, and hand over of MLCP Cum Office Complex. MLCP Shall be handed over after 5 years of Operation and Maintenance period.

In view of the site location and their prevailing condition, it is mandatory on the Bidder/ Contractor to visit the site and make himself thoroughly familiar with the site conditions, access and account for all possible difficulties and other requirements mentioned elsewhere in his bid prior to submission. When a contractor submits his bid for this work, it will be considered that he has quoted for this work with full and complete knowledge of the site and prevailing conditions, and no claim for additional compensation shall be entertained on this account. It is clarified that bidder should read carefully understand design features so that the Bidder is familiarized with the scope of work while submitting a Bid.

#### **4.1. Construction of Office Complex**

- a) The scope of work includes all aspects of the survey, design, construction, and commissioning of the Office Complex including Site clearance, excavation, Substructure, Superstructure, Finishing, Mechanical, Electrical & Plumbing (MEP) works including installation of Lifts, Sewage treatment (STP) plants, Firefighting systems (downcomer system with wet riser and sprinkler including automatic fire alarm system), Rooftop solar, Rain Water Harvesting (RWH) etc. and external development with landscaping, CCTV Surveillance, PA System, LAN, IP BASED EPABX SYSTEM along with Integrated Building Management Systems (IBMS) as per specifications.
- b) The Contractor shall have to undertake Site surveys as per requirements, Geotechnical investigations/ Engineering Surveys, hydrological investigations, Underground Utility Surveying of the site for shifting and creating new, obtaining all required approvals from the relevant authorities.
- c) The site will be provided free of any hindrances/ encumbrances to the successful bidder. However, the site clearance including dismantling of existing structure shall be responsibility of the Contractor.
- d) The building is to be constructed as per the approved drawings (Architectural/ Structural/ Electrical). Inspection and testing of works shall be conducted by the SSCL.

- e) The Contractor shall follow the quality norms as per the applicable IS Code and standards. The Technical specifications described in the following section (s) are to be followed.
- f) All materials /machinery/items used in the subject package shall be provided according to specification given herein. All electrical items shall be supplied from the "List of Preferred makes". Prior approval from Employer shall be taken for the equipment/ items not available in the list.
- g) Responsibility of quality of work and materials solely lies on the contractor which shall be checked by PMC and SSCL in that order. Decision of SSCL shall be final and binding in this regard.
- h) The successful bidder shall prepare 'As Built Drawings' after execution depicting the exact construction carried out on site, in soft and hard copy format.
- i) The Contractor shall be responsible for repairs/ replacement during the defect liability period.

*Note: Details and drawings given in this document are for information purpose only and successful bidder shall undertake confirmatory surveys for accuracy and completeness of data.*

The works is part of Contract as given in the following but not limited to:

- a) All the civil works mentioned in this section has to be read in conjunction with the civil scope of works and technical specifications. No duplication is envisaged.
- b) Site clearing and Levelling of the Complete Area, earmarked for the work.
- c) All materials including cement and steel required for the civil and Electrical work is in the scope of the contractor.
- d) The scope of civil works for bidder covers engineering, supply of labour & materials, transportation, and construction of entire civil engineering works.
- e) The scope of work of bidders is not limited to the major item of civil works as elaborated above but includes all civil works required for the successful completion & commissioning of Mechanical, Electrical, Plumbing, (MEP) works without any extra cost.
- f) The scope of work also includes sampling & testing of construction material on the specimens taken during execution of the work. The testing shall be performed by a NABL accredited lab, approved by the engineer in charge.
- g) Site office, cement & other construction material storage go down and fabrication yard for reinforcement, inserts etc. shall be constructed by the contractor at his own cost.
- h) All construction equipment required for execution of the work shall be arranged, procured & hired by successful Bidders at his own cost along with operations, skilled & semiskilled personnel. The successful Bidders shall also furnish a list of construction equipment /staff deployment.
- i) Construction of temporary sheds/ barricades for the temporary store, site office as well as safety and security of equipment shall be in the successful Bidder's scope.

The following technical services shall be in the scope of the Bidder:

- a) Liaison with Central/ state Government Departments or any other local bodies/ authorities (local MePDCL, Fire department, local town planning authority, local ground water authority, pollution control board, Forest department, Environmental clearance, etc. for matters like work entrustment, vendor approvals, drawing approvals, PTCC, TA& QC approvals and any other matters connected with the work and gets the approvals within the specified time for successful completion of work for all matters including obtaining approved designs & drawings, and commissioning of the Project including all incidental costs incurred thereon. Shillong Smart City Limited, however, will provide all the required administrative supports to the contractor in this regard and would also reimburse to the Contractor all the statutory charges paid to the departments on production of official receipts.

- b) The Contractor shall take the responsibility of obtaining all statutory clearances from all statutory bodies, on behalf of the Employer. (However, fee to be reimbursed by the Employer on production of documentary evidence)
- c) Working drawing and layout engineering of Electrical and Civil & structural work.
- d) Submission of QAP and Test certificates.
- e) Arranging inspection of the materials by the employer/ employer's representative

#### **4.1.1. Handing over of Office Complex:**

The contractor has to handover the Office Complex to Employer after the completion of construction works including of all Civil (including finishing works), electrical, plumbing, firefighting, lifts systems, STP, Solar PV, RWH, external lighting works, landscaping, CCTV Surveillance, PA System, LAN, IP BASED EPABX SYSTEM, IBMS etc. for carrying out the Operation and Maintenance as per the scope of work. However, the Contractor shall be liable for all repairs during the defect liability period of one year.

Accordingly, the Contractor shall have no right to generate any revenue from the Office Complex development area development nor will be entitled for any revenue generated by the client from this development.

#### **4.2. Construction of MLCP at Stilt floors (S, S1, S2 and S3)**

- a) Survey, design, supply, installation, erection, testing & commissioning of Mechanized Fully Automatic Multi Level Car Parking Facility with minimum 70 Nos. of four-wheeler with suitable steel structure frame work, Independent motorized pallet having up/down movement with electro-mechanical technology complete with PLC and electrical installation etc. as per specification and direction of SSCL.
- b) Provide required electrical, mechanical and automation for MLCP.
- c) Parking sensors, CCTV surveillance, boom barriers, ANPR Camera sets, and Digital display signage boards are to be provided at site.
- d) Provide all software and hardware required for automation and commissioning the MLCP.
- e) Other amenities necessary Power back up, Firefighting System as per NBC norms, Electrical Cabling including Main, four-Wheeler Parking Panel with Earth-leakage circuit breaker (ELCB), Earthing, Lighting arrester as per approved plans will be in the scope of Contractor.
- f) Facade development work for MLCP shall be in the scope of the contractor. The drawing of the facade development shall be approved by SSCL.
- g) The bidder shall install brand new equipment and the same shall be free from all defects and faults in material, workmanship, and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for materials of the type ordered and shall perform in full conformity with the specifications and drawings. The Contractor shall be responsible for execution of work without any defects that may develop under the conditions provided by the Contractor and under use, arising from faulty materials, design or workmanship such as corrosion of the equipment, inadequate contact protection, deficiencies in circuit design and or otherwise and shall rectify if any defects occur at his own cost when called upon to do so by the SSCL.
- h) Contractor shall submit Structure stability certificate for 10 years for all the components of electro Mechanized Parking system from any Government Engineering Institution / College recommended by SSCL.
- i) Third party inspection: SSCL may appoint any approved government agency/Authority or any person for third party inspection of the work, on contractor's cost.

- j) All labour, materials, tools plants, machinery, equipment, and any other things required for execution for work shall be arranged by the CONTRACTOR at his own cost.
- k) All arrangements for establishment, watch & ward of stores and security of sites, appropriate vehicles for transportation etc. shall have to be made by the CONTRACTOR at his own cost and nothing extra on this account shall be paid.
- l) Testing and Commissioning shall include furnishing all labour, materials, instruments etc. and incidentals necessary for complete testing of each component as per the IS / NBC specifications and manufacturer's recommendations.
- m) On the completion of the work, the CONTRACTOR shall clear away and remove from the site all construction plants, temporary works, surplus material, and rubbish of every kind and leave the site and works clean to the satisfaction of the Engineer-in- charge.
- n) All necessary statutory clearances / permissions such as approval from authorities in Meghalaya etc has to be obtained by bidder. However, the actual fees (if any) incurred will be paid by SSCL.
- o) The contractor shall submit the as-built drawing, other specifications & additional maintenance, and Operation standard other than mentioned in the RFP.
- p) The successful bidder will be expected to complete the construction works in 24 months from the date of signing of the agreement.

#### **4.3. Comprehensive Operation and Maintenance of MLCP:**

The successful bidder/ CONTRACTOR will be required to undertake Operation & maintenance of the multi-level car Parking System for 5 years post commission of services after completion of construction work as per the following terms:

- a) The CONTRACTOR shall at all times maintain, keep in good operating condition, repair, and renew, replace and upgrade to the extent reasonably necessary, the equipment, systems, and facilities. All maintenance and repair works shall be carried out in such a way as to minimize inconvenience to users of the Parking Systems.
- b) Maintenance shall generally be allowed at nonpeak hours only.
- c) The complete Mechanized system shall also have the provision of emergency evacuation of vehicles.
- d) Contractor should maintain all the necessary INVENTORY of electro-mechanical parts of the system during Comprehensive Operation and maintenance period and provide a list part prone to wear and tear during regular operation to SSCL authorities at the time of handing over after five years of Comprehensive Operation and maintenance.
- e) All the electric usage charges incurred on operation of the parking system will be borne by the CONTRACTOR.
- f) The periodic maintenance and repairs of firefighting Pumps and fire Tank Operations for entire building (as it is shared infrastructure between MLCP and office floors) shall be the responsibility of the Contractor.
- g) During the Operation and Maintenance period, the successful bidder shall replace the damaged/defective/worn out parts at his own cost to ensure smooth functioning of MLCP.
- h) The CONTRACTOR shall maintain a complaint register, duly paged, at site and shall make it available to the users of the parking to note down the complaints. SSCL will have the right to check the complaint book as and when required. The complaint register will be kept properly, and it shall be mentioned on the display signboard about its availability.
- i) The Contractor shall ensure compliance of the operational requirements of the proposed ICT system as per the requirements mentioned in this document. Also, integration of data transfer with the proposed city data centre being developed under ICCS project of Shillong Smart City Limited.

- j) The entire project will be financed by SSCL. SSCL will authorise the bidder to collect the user charge during the O&M period. The bidder shall have to pay an Annual Guaranteed License fee to SSCL as per the provision of the contract and bidding condition.
- k) The bidder shall be authorised to collect the user charge as defined in under ***User charge Fees during Operation and Maintenance of the Parking Facility*** in the subsequent section. The Contractor shall have no right to generate any revenue from the basement commercial area development nor will be entitled for any revenue generated by the client from this basement commercial area development.
- l) The CONTRACTOR shall transfer the parking facility to SSCL, free and clear of any encumbrances on completion of or termination of contract, whichever is earlier.
- m) During the Comprehensive Operation and maintenance period prior to anticipate transfer of the Facility the CONTRACTOR shall provide such training services to the representatives and employees of SSCL, or its nominated agency to operate and maintain the Facilities efficiently and safely following such transfer.

## 5. TECHNICAL SPECIFICATIONS

### 5.1. FOR MULTI-LEVEL PARKING SYSTEM

#### System Specifications of Multi-Level Parking System with Electro Mechanical Technology:

Sl.no	Item	Detail Description
1	Model Proposed	Fully automated Mechanized Parking
2	No. of Levels	Max. permissible height 10 mtr, height of parking as per bidder design
3	Minimum Number of 4-Wheeler Requirement	70 Nos
4	Clear Length of the System	As Per Design
5	Clear Width of the System	As Per Design
6	Allowable Car Dimensions (Length X Height X Width)	As per requirement & specification for SUV & Sedan vehicles
7	Total Allowable Clear Height of the System	As per design
8	Type of System	Electromechanical System
9	No. of Front Columns	As Per Design
10	No. of Rear Columns	As Per Design
11	Load on each Front Column	As Per Design
12	Load on each Rear Column	As Per Design
13	Power rating of the Lifting Motor	As per Design requirement
14	Power rating for Horizontal movement	As per Design requirement
15	Type of Motor	As per Design requirement
16	Type of Pallet	Galvanized Corrugated sheet
17	Type of System	As per Design requirement
18	Wheel Stopper	As per Design requirement
19	Type of Operation	As per Design requirement
20	Safety Devices	
(a)	Photo sensors	As per Design requirement
(b)	Antenna Type Limit Switch	As per Design requirement
(c)	Cam limit Switch	As per Design requirement
(d)	Geared Motor with Brake	As per Design requirement
(e)	Emergency Stop	As per Design requirement
21	Average Retrieval Time per operation	Approx. 120 Sec
22	Operating Panel	Touch screen type
23	Control Panel	PLC
24	Standby power arrangement	Generators
25	Life of system	25 years
26	Noise level	6-75 decibel

**NOTE:** - The above technical specifications described are minimum tender conditions. No deviation will be accepted below the specified specification.

#### a) Material Specifications

Structure	Industrial Grade MS
Guide rail for lifting unit	EN8
Gear boxes & drives	EN24
Delivery unit components	EN Grades
Facade	Aluminum Composite Panel (3 to 4mm tick) + Structural

	glazing work
Nuts and Bolts	High tensile strength grade
Steel	Special Grade Industrial steel
Motors	Reputed make as per IS Specifications
Lifts	Automatic
Access control	Automatic

## b) STEEL STRUCTURE

- a. Design shall consider that the site is in earthquake zone 5. Seismic load applied as per IS-800 2007
- b. Wind loads shall be in accordance with IS-875-2015
- c. Steel Frame is Multi span as per the design
- d. Steel columns and beams as per detailed structural design.
- e. End frames shall be rigid frames; Bracing in walls is diagonal;
- f. Suitable arrangement for rainwater down pipe.
- g. Anchor Bolt- Hot Dip Galvanized
- h. Primary Bolts- Hot Dip Galvanized
- i. Secondary Bolts- Electro plated
- j. Hot rolled sections- tubes, I-sections, channels, angles, pipes
- k. All primary steel members will be cleaned and to be Powder coated with 80-90microns.
- l. Decking panel with pre-galvanized finish.
- m. Additional items- end wall columns & framed wall openings, all necessary flashing & trims, Filler blocks / foam closures, Sheet tape for roof panel end-lap, Connection bolts, and Sheeting fasteners.
- n. Corrosion Protection

The structure shall be designed in accordance with the latest Indian Standard Codes and

- Shall be designed to resist wind and seismic forces.
- Steel Structures shall be designed in accordance with the provision of IS 800-1984.
- Structural steel shall conform to IS 842. Tubular section shall conform to IS 4923.
- Architectural design norms as per NBC (National Building Code – 2005).
- Structural Design norms as per NBC and BIS (Bureau of Indian Standards)

CONTRACTOR shall provide permanent bench marks, flag tops and other reference points for the proper execution of work and these shall be preserved till the end of work. All such reference points shall be in relation to the levels and locations, given in the Architectural drawings.

The CONTRACTOR shall give performance test of the entire installation(s) as per the standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the CONTRACTOR for the test,

The work shall be carried out in accordance with the Architectural drawings and structural drawings. Before commencement of any item of work, the CONTRACTOR shall correlate all the relevant architectural and structural drawing issued for the work, nomenclature of items, specifications etc. and satisfy himself that the information available there from is complete and unambiguous. The figures & the written dimensions of the drawing shall supersede the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer-in-charge for immediate decision before execution of the work. The CONTRACTOR alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and or incomplete information and no claim, whatsoever shall be entertained on this account.

The CONTRACTOR shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other CONTRACTOR's) or by the Engineer-in-charge and shall as far as

possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other CONTRACTOR or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

Welding and Cutting Gas cylinders in use should be kept upright on a custom-built stand or trolley fitted with a bracket to accommodate the hoses and equipment or otherwise secured. The metal cap should be kept in place to protect the valve when the cylinder is not connected for use. Non-return valve and Flashback arrester shall be fixed at both end of cylinder and torch Domestic LPG cylinders shall not be used for Gas welding and cutting purpose. DCP or CO2 type Fire Extinguisher not less than 5 kg shall be fixed at or near to welding process zone in an easily accessible location. Fire Extinguisher should confirm to IS 2190: 1992. Welding grounds and returns should be securely attached to the work by cable lugs, by clamps in the case of stranded conductors, or by bolts for strip conductors. The ground cable will not be attached to equipment or existing installations or apparatus.

**c) STEEL**

All finished steel shall be well and cleanly rolled to the dimensions and weight specified by BIS subject to permissible to tolerances as per IS: 1852. The finished materials shall be reasonable free from cracks, surface flaws laminations, rough and imperfect edges and all other harmful defects and shall be painted with anti-corrosive paint

Steel Sections, shall be free from excessive rust, scaling and pitting and shall be well protected. The decision of the Engineer-in-Charge regarding rejecting any steel section on account of any of the above defects shall be final and binding and shall be painted with anti-corrosive paint.

**d) FABRICATION**

Fabrication shall generally be done as specified in IS:800.

In major works or where so specified, drawings giving complete information for the fabrication of the component parts of the structure including the location, type, size, length and details or fivers, bolts or welds, shall be prepared in advance of the actual fabrication and approved by the Engineer-in-Charge. The drawings shall indicate the shop and field rivets, bolts and welds. The steel members shall be distinctly marked or stenciled with paint with the identification marks as given in the shop drawings.

Great accuracy shall be observed in the fabrication of various members, so that these can be assembled without being unduly packed, strained or forced into position and when built up, shall be true and free from twist, kinks, buckles or open joints.

Wooden or metal sheet templates shall be made to correspond to each member, and position of rivet holes shall be marked accurately on them and holes drilled. The templates shall then be laid on the steel members, and holes for riveting and bolting marked on them. The ends of the steel members shall also be marked for cutting as per required dimensions. The base of steel columns and the positions of anchor bolts shall be carefully set out at the required location.

**e) ERECTION**

Steel work shall be hoisted and erected in position carefully, without any damage to itself other structures and equipment and injury to workmen. The method of hoisting and erection proposed to be adopted by the CONTRACTOR shall be got approved form the Engineer-in- charge in advance. The CONTRACTOR however shall be fully responsible for the work being carried out in a safe and proper manner without unduly stressing the various members and proper equipment such as derricks, lifting tackles, winches, ropes etc. shall be used.



**f) ELECTRICAL WORKS:**

The scope of work includes Planning, Design & preparation of drawings, obtaining all type of approvals, including supply, Installation, testing and commissioning of the following:

Internal electrical installations, Transformer, Distribution Board, DG set, Starters, Pumps, power wiring and plugs, lightning protection, telephone and data networking conduits, LAN cabling, telephone wiring, exit signages, LT cabling works, emergency lighting, earthing, LT main panel board, telephone and data networking, LED light fittings, modular plate type Switch boards with switches, plugs and accessories, MCB DBs with all required switch gears and accessories, sub main wiring, termination and allied works, automated car parking system, CCTV, access control system with HMI interface and door locks etc. as detailed in additional particular specifications of this document.

Bringing and laying as per specifications of the already laid LT power cable inside the MLCP building including termination of LT cable to the main LT distribution panel board of the MLCP building shall be made by the agency.

**Site Electricians / Other Electrical Personnel:** The CONTRACTOR shall engage qualified and competent electricians and other electrical personnel while working for safe execution of contract. The electricians and other electrical personnel must possess requisite certificate issued from competent authority. Using exposed naked loose joints, inserting of bare wire into socket, improper grounding for appliances, exposed circuits on work place etc. shall not be permitted. Rating of fuses and circuit breakers used for protection of circuit should be coordinated. Flexible cords with the conductor cross sectional area smaller than 1.5 mm should not be used. Socket outlets, plugs and cable coupler should be of the water splash proof type, so minimum IP rated panel boards are required in construction sites. Overhead cabling should provide for a minimum ground clearance of at least 3.0 meters. The CONTRACTOR shall employ qualified, full time Electricians / Electrical Supervisors to maintain his temporary electrical installation. Use approved perimeter markings to isolate restricted areas from designated work areas and entryways. Erect them before work begins and maintain them for the duration of work. Approved perimeter marking must be Install red barrier tape printed with the words 'DANGER-HIGH VOLTAGE' approximately 1 to 1.5 meter above the floor or work surface or install a barrier of yellow or orange synthetic rope 1 to 1.5 meter from the floor with standard danger signs. Any steps suggested by Engineer-in-charge should be- complied with by the CONTRACTOR.

**g) FIRE FIGHTING SYSTEMA AND FIRE EXTINGUISHERS:**

Planning, design & preparation of drawings, obtaining all type of approvals, supply, Installation, testing and commissioning of firefighting with sprinkler system, internal and external hydrants, Fire brigade inlets, terrace pump sets, all allied plumbing works etc. all as per the particular specifications, fire extinguishers complete with obtaining of all type of statutory approvals from Meghalaya State Fire & Rescue Services and Municipal body as required as per the additional particular specifications of this document. A separate DG set is envisaged for firefighting system.

**h) AUTOMATIC FIRE ALARM SYSTEM:**

Planning, Design & preparation of Drawings for automatic fire alarm control panel capable of controlling sufficient number of zones as per requirement, manual call points having ABS body, fire alarm sounder having ABS body, wiring using FRLS wires in steel conduits and terminations etc. obtaining of all type of statutory approvals from Meghalaya State Fire & Rescue Services and Municipal body as per additional particular specifications of this document.

**i) EQUIPMENT**

- a. All labour, materials, tools and tackles, machinery, equipment and any other things required for execution for work shall be arranged by the CONTRACTOR at his own cost.
- b. All arrangements for establishment, watch & ward of stores and security of sites, appropriate vehicles for transportation etc. shall have to be made by the CONTRACTOR at his own cost and nothing extra on this account shall be paid.

- c. Maintenance for the electro mechanical car parking shall be provided by the CONTRACTOR during the defect liability period.
- d. On the completion of the work, the CONTRACTOR shall clear away and remove from the site all construction plants, temporary works, surplus material, and rubbish of every kind and leave the site and works clean to the satisfaction of the Engineer-in-charge.

## 5.2. TECHNICAL SPECIFICATIONS FOR CIVIL WORKS (Office Complex plus MLCP)

### 5.2.1. Specification as per CPWD

The technical specification as per the plinth area rates by CPWD to be followed are summarised below:

Item No.	Description	Specifications
1.0	<b>FOUNDATION AND PLINTH</b>	As per Structural design & drawings to be approved. Structural design shall be carried out in accordance with relevant Indian Standard Codes.
1.1	Foundation & Superstructure	Building shall be earthquake resistant RCC framed structure with suitable foundation system as per the details and recommendations of the soil investigation report & design conforming to relevant Indian Standard Codes. Super structure shall be as per specifications of New and Emerging Technology issued vide circular No. 17/SE(TAS)/BMTPC/2022/105-H dated 24.03.2022 as amended time to time.
1.2	Plinth Filling  a) Sand filling under floor  b) Concrete under floor	<b>Earth:</b> Excavated earth required for back filling is to be stacked at site however, if required, then additional earth suitable for back filling has to be procured from outside of site including all lead and lifts. <b>Sand:</b> 150mm thick layer of local sand of <b>grading zone IV or V.</b> <b>Grade slab:</b> 100mm thick M20 mix RCC with 8 mm dia. reinforcement @ 300mm c/c both ways shall be laid under flooring work directly resting over stone soling filled up material.
2.0	<b>Internal Partitions Office</b>	As per availability and requirements following to be used for internal partitions: <ul style="list-style-type: none"> <li>• AAC Blocks</li> <li>• Fly Ash Bricks</li> <li>• Burnt Clay Bricks</li> <li>• Dry Wall partition system</li> <li>• 12mm thick toughened glass partitions with translucent film.</li> </ul>
3.0	<b>WOOD AND PVC WORK</b>	
3.1	Frame Work	
3.1.1	Door frames	<b>Officer's Chamber, Conference rooms:</b> 2 <sup>nd</sup> Class teakwood or equivalent hardwood / Engineered wood.

Item No.	Description	Specifications
		<b>Other Areas:</b> Polyester Powder Coated or anodized Aluminium/ uPVC frame in decorative finish and colours.
3.1.2	Window frame	uPVC extruded sections of window frame/ Aluminium extruded tubular sections/ Engineered wood of density between 750 to 1000 kg per cum.
3.2	<b>Door Shutter</b>	
3.2.1	Office	<b>Officer's Chamber, Conference rooms:</b> Paneled type in 2 <sup>nd</sup> class Teak wood/ 35mm thick factory-made flush door shutter with teak ply veneering or 1mm thick decorative laminate. <b>Other Areas:</b> aluminium/ uPVC shutters (decorative colours) with toughened glass glazing min 4mm thick).
3.2.3	Frame and shutters in wet area	uPVC frame with 25mm thick exterior grade uPVC flush/ panel door shutter in Bath/WC as per CPWD specification.
3.3	Window shutters	<b>Sliding System Type:</b> Two track uPVC frame/ factory fabricated aluminium window system. Casement Type: uPVC/ Aluminium extruded frame sections with wall thickness min. 1.7 mm. Shutters to be air tight and be provided with dust eliminators. 3-point locking arrangement to be provided. Extruded frames sections with minimum wall thickness 2mm. Double glazed unit with <b>low Emission value</b> , heat, reflecting glass tempered outside and plain tempered glass inside for Air-Conditioned areas. Minimum 4 mm thick glazing with toughened glass in non-air-conditioned areas. Opening of windows should be sufficient as per ECBC norms for day light.
3.4	Fittings	25 mm dia. SS 316 tubular pull handle of 450mm length of approved make shall be provided in shutter of all main entrance/ corridor/ lift lobbies/ staircase/ seminar or conference hall doors. 19 mm dia. SS 316 tubular pull handle of 250mm length of approved make shall be provided in shutter of all doors of chambers / rooms. Stainless steel 316 grade fittings e.g., Hinges, Tower bolts, door stopper etc. Mortise lock with stainless steel 316 grade latch lever handle to be provided. All door fittings to be provided in accordance to the Schedule of Fittings for Doors and Windows provided in the CPWD Specifications.
3.5	Fire check door	Glazed Fire Doors in Lift Lobbies. Wooden/ Metallic Fire Doors in Stair Cases and Basement area
4.0	<b>FLOORING</b>	
4.1	Main entrance hall	Italian Marble / Pre-Polished Granite in decorative pattern
4.2	Corridors	Full Body Vitrified Tiles / Granite
4.3	Rooms	<b>Officer's Chamber and Conference Rooms:</b>

Item No.	Description	Specifications
		Engineered Wooden Flooring/Double Charged/ Full Body Vitrified Tiles Other Rooms: Double Charged/ Full Body Vitrified Tiles
4.4	Lavatory Blocks	Full Body Anti-Skid Vitrified Tiles
4.5	Flooring in basement	Vacuum dewatered concrete.
4.6	Rest of the area	Kota stone flooring.
5.0		
5.1	Internal staircases	Single piece granite or marble flooring in treads & risers with dado of matching permanent finish specifications
5.2	Fire escape staircase	Flame finished granite in single piece.
6.0	Railing	SS grade 304, 50 mm dia. hand rail with SS 304 Balustrade provided at no more than 900 mm spacing. All railings to be designed in accordance to NBC 2016 and other relevant IS codes.
7.0	Toilets	<b>Dado:</b> Glazed/ digital/ coloured ceramic tiles–300 x 450mm up to ceiling height. <b>Counters:</b> Granite Top with counter sunk basins, full counter width mirrors with moulded WPC frame.
8.0		
8.1	Expansion Joint	Expansion Joint systems with arrangements for movements and EPDM sheet water barrier to be provided in floors, corridors etc. For Vertical Joints 1mm thick SS 304 grade plate with slotted holes on one side and with EPDM membrane water barrier to be provided on external face. Expansion Joint on roof should be as per the CPWD Specifications.
8.2	Water proofing treatment	<b>On Roof:</b> Primer + 2 coat of single component UV resistant flexible acrylic elastomeric coating + coba Integral cement-based water proofing treatment including preparation of surface as required for treatment of roofs, uncovered balconies, terraces etc. to be provided. Heat reflective paint to be applied on roof. To be laid in proper slope of 1.5 %.  <b>In Sunken part of Bathroom, kitchen:</b> Water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen with slope of 2 %. Shall be provided as defined in corresponding DSR Item.  <b>Under raft of basement of lift pit:</b> Waterproofing membrane with adequate puncture resistance and elongation as specified. + Sprinkling of crystalline waterproofing admixture before pouring of raft concrete.

Item No.	Description	Specifications
		<p><b>Basement/lift pit retaining wall/UG water tank:</b> Waterproofing treatment of all construction joints, tie rod holes and any other cracks / honeycomb areas using crystalline waterproofing slurry /mortar. Wall water proofing treatment using either (i) Primer + 2 coats of single component UV resistant flexible acrylic elastomeric coating or coating of cement slurry with crystalline waterproofing admixture. 20mm protection plaster in cement mortar 1:3 with integral crystalline water proofing compound. After waterproofing treatment, the water tanks to be lined with ceramic tiles on floor and walls.</p> <p><b>Podium Terrace</b> (for Grassing &amp; Plantation, on top of basement slab, planters or any other structure required in water proofing): Primer + 2 coats of non-modified, non-bituminous, high solid, liquid applied, polyurethane costing at 1.5 kg per sqm dosages for average thickness of 1.5mm without fibre cloth reinforcement + Geotextile Layer + M-15 screed concrete as per design.</p> <p><b>Proper drainage layer and drainage arrangement to be provided under green areas.</b></p>
8.3	Rain Water Pipes	All the RWP pipes including gutter/ fittings shall be 150 mm dia. Hubless centrifugally cast-iron pipe as per IS: 15905 /uPVC exposed on walls/ in the shafts to be fixed using GI rod clamps with all fitting/ bends (PVC) complete, executed as CPWD specifications.
8.4	False ceiling	False ceiling of appropriate Type in office area/ corridors/ entrance lobby etc. Water resistant/ metallic false ceiling in toilets to cover the services as per design requirements.
9.0	<b>FINISHING</b>	
9.1	External	Dry stone cladding with silicone coating/ washed stone grit plaster/ water proof weather coat paints (plain or textured)/ structural glazing/ ACP cladding or any other finish as per architectural requirements.
9.2	INTERNAL	
	Office	Acrylic emulsion paint/ textured paint (low V.O.C) over POP. Wall paneling as per approved architectural design up to sill level/ 1200 mm height or ceiling height
9.3	Painting	Doors & windows – painting/ polishing on wood work as per design requirement.
10.0	PROVISION FOR BARRIER FREE BUILDING	As per Codal Requirements
11.0	<b>Internal Sanitary Water Supply Installations</b>	All water supply pipes shall be GI/ CVPC. The water supply pipes to be laid in ground or exposed conditions shall be GI / DI/ CPVC.

Item No.	Description	Specifications
		Drainage pipes to be Hubless Centrifugally Cast-iron pipe as per IS: 15905/ uPVC in vertical stacks. HDPE Pipes for horizontal discharge of sewage at ground level Dual Piping system for recycled water and normal water supply to be provided where recycled water is available.
11.1	Sanitary Fittings	Sanitary ware/ WC or Wall mounted EWC with dual flushing cistern. At least one toilet to be provided with IWC Health faucet with EWC. CP Brass bib cock for IWC. Wash basin with CP brass bib cock of single lever quarter turns type with ceramic cartridges. CP brass bib cock with quarter turn type ceramic cartridges bib cock in kitchen sink with swivel type faucet arm. Shower with CP brass diverter/ mixture single liver type for hot & cold water with ceramic cartridges SS towel rack with towel rail. SS 304 grade Grab Bar of 450 mm length for IWC/ EWC and shower area for hospitals and accessible toilets. SS 304 grade toilet paper holder. Soap rack / niche as per architectural design and specification. Plumbing for water purifier and geyser. Water meter of appropriate bore size, as per approval of the local municipal body to be provided for each individual house hold.
11.1.4	Wash basin	Counter sunk oval shape wash basin of size 550 x 445 x 200 to be provided in counter/ platform of 18mm thick granite over RCC slab in all rooms and common toilet. Stainless steel Bottle trap must be provided in each wash basin
11.1.5	Urinals	Sensor operated water saving half stalls urinals with sand blasted toughened glass partitions fixed with SS patch fittings. Sensors to be provided with necessary wiring.
11.1.6	Mirror	5.5 mm thick full size/ length mirror over wash basin slab has to be provided with PVC base and WPC frame as per the CPWD specification shall be provided.
11.1.7	Soil & waste pipes fittings	All the sanitary pipes including fittings shall be Hubless centrifugally cast (spun) iron pipe epoxy coated inside & outside as per IS: 15905/ uPVC/ PVC exposed on walls/ in the shafts to be executed as per CPWD specification.
11.1.8	House Manhole	Brick masonry with brick of class designation 75 of size 90x80x45cm with cast iron light duty cover and frame.
11.1.10	Pipe between house manhole & service manhole	HDPE pipes of PN-8 shall be provided for smooth/ healthy drainage system with proper slope as per approved design.
11.1.11	Water supply line:	
	External pipe line up to 50mm	GI/CPVC pipes as per approved plumbing drawing. Gun metal gate valve with CI wheel/ CPVC gate Valve of approved quality.
	Internal piping– Exposed on wall	GI/CPVC pipes as per approved plumbing drawing. Gunmetal gate valve with CI wheel/ CPVC gate Valve of approved quality.

Item No.	Description	Specifications
	Internal piping & fittings—Concealed work	Stainless steel grade 304 as per DSR18.85 to 18.102
11.1.12	Painting of CI Pipes: a) Exposed on buildings	Synthetic enamel paint
11.1.13	Terrace Tank <sup>11</sup>	Supplying and placing plastic cylindrical vertical closed top (PCVC) tank of Sintex/ Polycon/ Patton make over the staging with manhole cover with locking and cleaning arrangement including providing pads of size as required for inlet and outlet pipes.
<b>11.1.14</b>	<b>EXTERNAL DEVELOPMENT (WATER SUPPLY)</b>	
	Pipe	GI/CPVC pipes as per approved drawings
	Fittings	Standard fittings (Heavy class)
	Pig Lead	Pig lead of approved quality/ Epoxy Jointing
	Sluice Valve	C.I. sluice valve (with cap) complete with bolts & nuts, rubber insertion etc./ CPVC Gate Valve as directed.
11.1.15	Chambers for Sluice Valve Fire Hydrant	Brick masonry chambers of appropriate size with C.I. surface box complete as per specification.
	Thrust Blocks	CC 1:2:4 (1Cement:2 Coarse sand:4 graded stone agg. 20 mm nominal size)
<b>11.1.16</b>	<b>SEWERAGE / DRAINAGE</b>	
	Rectangular Manhole: Inside size 90cmx80cm with depth up to 45cm.  Inside 120cmx90cm with depth 45cm to 90cm.  Circular Manholes exceeding 0.90m depth	Brick masonry manhole with CI covers & frame light duty as per CPWD specification. Brick masonry manhole with CI covers & frame heavy duty as per CPWD specification.  Manholes of required dia. as per depth with brick wall (with Sewer Bricks) as per CPWD specification and corresponding DSR 2021 items with SFRC frame and cover HD-20. In sub soil or adverse soil conditions, manholes & encasing pipes shall be as per approved credible structural design to avoid sinking and settlement of lines/ manholes. <b>Note:</b> Orange colour safety foot rest of minimum 16mm thick plastic encapsulated complete as per IS: 10910.
12.0	Numbering of Rooms etc.	
12.1	Numbering of rooms	On SS plate (grade 316) 250X150mm with teak wood backing in ornamental edges fixed on top of entrance door, in front

<sup>11</sup> Plint Area of CPWD provides for RCC Water Tanks. However, in this project PCVC Water tanks are considered.

Item No.	Description	Specifications
		verandah, balcony and also on block ends showing the houses in each row and blocks.
13.0	Internal Road/ Car	Machine moulded M-30 kerb stone shall be provided along the edge of internal road constructed under this contract. Approach road from main road will be C.C. pavement 200mm thick M-30 PCC laid over 150mm thick GSB with dowel bars as per MORTH specifications (fifth edition). Drawings for open paved parking shall be prepared by the agency as per the requirement of local byelaws and as per NBC 2016 and accordingly shall be provided during execution.
14.0	Rain water harvesting	Appropriate Rain water harvesting system suitable for the buildings shall be provided.

**Notes:**

- 1) The following green measures are to be followed for civil works-
- a) Over deck insulation and application of high SRI reflective paint on thereof.
- b) Masonry work in super structure with autoclave aerated concrete (AAC) blocks/ fly ash bricks
- c) Window with reflective glass coating/ high performance coatings/double glazed unit.
- d) Paints with low VOC options
- e) Provision of pillar cock having infrared sensor and foam flow technology along with provisions of online water filter for sediment free water from terrace tank outlet or the distribution line.
- f) Dual Plumbing system

**5.2.2. ADDITIONAL TECHNICAL SPECIFICATIONS FOR CIVIL WORKS**

**GENERAL SPECIFICATIONS FOR CIVIL WORKS**

- a) **Barricading of site-Contractor** has provided surrounding the building Proper temporary barricading by fencing with colour coated G.I. sheets, shall be carried out by the contractor at the start of work as per direction of Engineer-in charge in order to physically define the boundaries of the plot for restricted entry to only those involved in the work and also to prevent any accidents.
- b) **Dismantling or Demolition work-** of existing structures which comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and outside the municipal limit as per direction of Engineer in Charge including all leads and lifts.

The contractor shall have to carry out the following additional activities at his own cost.

- i. Demolition of existing RCC/ Brick work/ stone masonry structure including platform, foundation etc., i.e., complete in all respects.
- ii. The dismantling, levelling and demolition of all structures, including, buildings, belowground, foundations, parking areas, driveways, utility installations located on or under the Site; removal and proper disposal of all debris resulting from such Work; and proper compaction and grading of the Site following the removal of all structures and debris therefrom up to a limit of 15 KM from the construction site.



The demolition works shall also include but not limited to the following.

- i. Barricading the plot to ensure safe working conditions.
  - ii. Demolition of buildings with Hydraulic Breakers/ manually or as may be required.
  - iii. All dismantled material will be property of the contractor. The contractor will quote the rates accordingly.
  - iv. Removal of Foundations below ground level.
  - v. Excavation of Soil to the required depth.
- c) **Earth Work in Excavation-** The earthwork shall be classified under the following categories and measured separately for each category:
- i. All kind of soils: Generally, any strata, such as sand, gravel, loam, clay, mud, black cotton moorum, shingle, which for excavation yields to application of picks, shovels, jumper, scarifies, ripper and other manual digging implements.
  - ii. Ordinary rock: Generally, any rock which can be excavated by splitting with crow bars or picks and does not require blasting, wedging or similar means for excavation such as lime stone, sand stone, hard laterite, hard conglomerate.
  - iii. Hard rock: Generally, any rock or boulder for the excavation of which blasting is required such as quartzite, granite, basalt, reinforced cement concrete (reinforcement to be cut through but not separated from concrete) below ground level and the like.
  - iv. Hard rock (blasting prohibited): Hard rock requiring blasting as described under (c) but where the blasting is prohibited for any reason and excavation has to be carried out by chiseling, wedging, use of rock hammers and cutters or any other agreed method.
- d) **Shoring** - Earthwork in cutting shall be retained by designed Steel Shoring as per relevant code. If slips, slides, over-breaks or subsidence occur in cuttings during the process of construction, they shall be removed at the cost of the Contractor as ordered by the Engineer.
- e) **Plain concrete work:** Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - all work up to plinth level - 1:5:10 (1 cement: 5 coarse sand: 10 graded stone aggregate 40mm nominal size)
- f) **Reinforcement Steel** -The contractor shall procure IS marked TMT bars of various grades from the primary steel Manufacturers such as SAIL, TATA steel Ltd., RINL, JINDAL steel & power Ltd, and JSW steel Ltd or their authorized dealers having valid BIS license for IS: 1786-2008 (Amendment-1 November 2012).

The contractor shall have to obtain and furnish test certificates to the Engineer-in charge in respect of all supplies of steel brought by him to the site of work.

- g) **Form Work-** The work shall be done in general, as per CPWD Specifications.
- h) **Reinforcement Concrete Work:** Providing and laying in position specified grade of M-40/ M-30/ M-25 reinforced cement concrete, including the cost of centering, shuttering, finishing and reinforcement as per approved design.
- i) **Plastering** :12mm cement plaster of mix -1:4 (1cement: 4 fine sand)
- j) **Cement:** The contractor shall procure cement (conforming to IS:1489-part-I & IS:8112 (1989) as required in the work, from reputed manufacturers of cement such as ACC, Ultratech, India cement, Ramco, Dalmia Brand cement.

#### **CONDITIONS AND PARTICULAR SPECIFICATION FOR R.C.C. WORK**

**Ready Mix Concrete/ Design Mix Concrete)- (Before start of RCC work concrete Mix Design is to be undertaken** by the contractor from a NABL accredited laboratory/ IIT/ NIT laboratory with the

approval of Engineer-in-Charge. The RCC Work shall be carried out as per the Mix Design approved by the Engineer-in-charge). For the nominal mix in RCC, CPWD specification shall be followed. The Design Mix Concrete will be designed based on the principles given in IS: 456, 10262 and SP 23.

#### **ADDITIONAL SPECIFICATION (AS APPLICABLE)-**

- a) **Conditions for water:** The contractor shall make his own arrangement for providing water for construction and drinking purpose. Water charges shall not be recovered on account of it.
- b) **Brick work:** Brick work with common burnt clay F.P.S. (non-modular) bricks of class designation 35 in foundation and plinth in - cement mortar 1:6 (1 cement: 6 coarse sand).
- c) **Concrete Admixtures** –Admixtures are materials added to the concrete before or during mixing with a view to modify one or more of the properties of concrete in the plastic or hardened state. Concrete admixtures are proprietary items of manufacture and shall be obtained only from established manufacturers such as CHOKSEY CHEMICALS/ BASF/ DR. SEALKIT (ASIANCHEMICALS)/ SIKA, quality assurance and full-fledged laboratory facilities for the manufacture and testing of concrete.
- d) **Primer/ Epoxy Paint**-The structural steel shall be painted with two coats of Epoxy paint over an under coat of epoxy primer and or Fire retarding paints.
- e) **Painting work:** Finishing with deluxe multi surface paint system for interiors and exteriors using primer as per manufacture's specification - Two or more coats applied on walls @ 1.25 ltr/ 10 sqm over and including one coat of special primer applied @ 0.75 ltr / 10 sqm.
- f) **Pipes** - The pipes shall be transported and handled as per IS: 12288. All precaution set out shall be taken out to prevent damage to the protective coating, damage of the jointing surfaces or the ends of the pipes. The pipes shall be stacked in layers on dry surface preferably on the projected bench/ surface.
- g) **Boundary/ Compound Wall**- Boundary wall Boundary wall with 1500 mm high wall and 600 mm high MS grill including 2100 mm high steel gates at every 100 meters with brickwork structure with RCC column of size 300X300mm @ 3.00 meter Centre to Centre and RCC plinth beam of size 300X300mm at ground level and coping
- h) **Gates:** Motorized steel gates/ Steel gates as per design or directed by the Engineer in Charge

#### **SPECIFICATION FOR RAIN WATER HARVESTING TANK**

The scope covers the Construction of Rainwater harvesting system with proper inflow, filtering & outflow arrangements including de-silting chamber and allied Civil Works for the same. The scope briefly includes:

- Construction of Underground Storage Tank
- Pumping of the collected water to Overhead Tank
- Channelizing water from Overhead Tanks to the washrooms for flushing

**Underground Storage Tanks (UGST):** This shall include excavation, filling, RCC, and other necessary construction works as per CPWD specifications.

**Terrace Tanks:** Supplying and placing plastic cylindrical vertical closed top (PCVC) tank of Sintex / Polycon / Patton make over the staging with manhole cover with locking and cleaning arrangement including providing pads of size as required for inlet and outlet pipes.

**Filtering units:** The RWH system by Shillong Smart City includes providing and fixing of CGWB/GRIHA approved Pure Rain or equivalent Rain Filter 700 mm dia with 300 mm dia inlet and outlet to accumulate storm water having desilting suspended solid catcher made out of FRP with strainers steel 304 grade strainers, having steel bucket of 600 micron capable of eliminating finer particulate matter upto 160 micron filtration made of SS net with long fiber foam of 25 mm thickness, green colour, filtration capacity

40-80 kiloliters/hour complete in accordance to the design, drawing and specification complete as per entire satisfaction of Engineer-in-Charge. Total depth of filter shall be 2000 mm including two filter extensions. Vendors in market include Pure Rain, Triveni, SGB or equivalent.

**Submersible Pump:** supplying fixing testing and commissioning of 2 HP Single phase Open well submersible pump set including direct on line and all necessary accessories. (GEC, Crompton, Bajaj, Kirloskar, Siemens, L&T make only).

**Other materials:** all other items like pipes, manhole covers, sanitary fittings to be provided as per CPWD specifications/ specifications approved from Engineer.

**CODES AND STANDARDS APPLICABLE:**

<b>Building Works and Electrical System</b>	<b>Road / Pedestrian Path Works</b>
I. Central public works (CPWD)	I. Indian Road Congress (IRC) codes and standards
II. Bureau of Indian Standards (BIS)	II. Relevant Building Byelaws (on Parking Space)
III. National Building Codes (NBC); and	
iv. MPWD Standards	
IS 456-2000	Plain and reinforced concrete-code of practice
IS 875	Code Of practice for design loads for buildings and structures
Part 1: 1987	dead loads- unit weights of building material and stored material
Part 2: 1987	Imposed loads
Part 3: 1987	Wind loads
IS 1893: 2002	Criteria for earthquake resistant design of structures
IS 13920: 1993	Code of practice for ductile detailing of reinforced concrete Structures subjected to seismic forces
IS 800:1984 & 2007	Code of practice for general construction in steel
IS 3370 Part 1 TO 4	Code of practice for liquid retaining structures
IS 2911 Part 1 TO 4	Design &Construction of Pile Foundation
SP-24-2000	Explanatory Hand Book on Indian Standard Code of Practice for Plain and Reinforced Concrete
BS 8110: 1997	Plain and reinforced concrete-code of practice (British standard)
SP-16-2000(Design Aids for Reinforced Concrete)	Design Aids for Reinforced Concrete to IS 456.
SP-34-1987	Hand Book on Concrete Reinforcement and Detailing.
IS 1343:2012	Code of practice for pre-stressed concrete (First Revision)
Soil Report	

### 5.3. TECHNICAL SPECIFICATIONS FOR ELECTRICAL & MECHANICAL WORKS (Office Complex plus MLCP)

#### 5.3.1. Specification as per CPWD

The technical specification for Electrical & Mechanical works to be followed as per the plinth area rates by CPWD to be followed are summarised below:

S.No.	Description of Work	Specifications
	<p>Note: All Electrical &amp; Mechanical works shall be as per the specifications mentioned herein, which shall represent the minimum requirement compliant to the related CPWD specifications and relevant Indian standards/ International standards as applicable including installation, testing and commissioning. The requirement of the energy efficiency measures shall be complied as per the provisions of the local body and provisions as per minimum "Green rating" as per Green Rating Manual 2021 and ECBC 2017 (as applicable for individual service/ item). The scale of amenities and the provisions for different services shall be as per the client's requirement/ approved yardstick if any/ local body /statutory requirements as applicable. Equipment's capacity/selection and design shall also be made as per good engineering practices, based on site, Client requirements, CPWD Specifications, Relevant BIS standards, NBC -2016, Local by-laws, Local Fire authority Rules as modified up to date. Clearances from local authorities as per norms shall be with the scope of work. For the purpose of the interpretation of the specifications, the order of preference shall be:</p> <ul style="list-style-type: none"> <li>• Preliminary Estimate items description &amp; Additional conditions as per site requirements.</li> <li>• CPWD specifications</li> <li>• IS standards</li> <li>• Manufacturer's standard practice/ specifications</li> <li>• International Standards</li> </ul>	
1	Internal Electrical Installations	As per CPWD General Specification for Electrical Works Part I (Internal) – 2013 amended upto date.
1.1	Conduits & Cable Trays	The work will be carried out in recessed/surface PVC/ MS conduit wiring system in accordance of CPWD General Specifications for Electrical Works Part-I (Internal)-2013 amended upto date; Hot Dip Galvanized GI Cable trays (perforated or ladder type) for cable laying. Data and communication cables shall be laid in the recessed/surface PVC/ MS conduit or laid in the metallic raceways/ channels with cover and matching junction boxes.
1.2	Wires & Cables	FRLS PVC insulated Copper conductor cables will be used for points, circuit & sub-main wiring; Power & light point wiring shall be with copper conductor of size as per CPWD specifications & relevant BIS standards; RG-6 Cable TV wiring; Cat-6 Cabling / telephone wiring as required for EPABX / Data networking requirements;

S.No.	Description of Work	Specifications																				
1.3	Switches & Sockets	All switches, sockets, stepped type electronic fan regulators, bell push and accessories along with matching mounting boxes shall be of modular type.																				
1.4	MCB DBs & LT Panels	Meter Boards & Main Distribution Boards as per CPWD specification / requirement; Size of distribution board shall be as per number of light / power circuits. All distribution boards shall be MS powder coated MCB based, Single phase/ 3 phase and suitable incomer as per individual DB requirement, double door type with RCCB of required capacity and MCCB/MCB of suitable rating. LT panels shall be as per CPWD specifications with MCB/MCCB/ACB as required.																				
1.5	Fittings	Lighting fixtures, LED type, in all spaces, common areas on all floors, staircases, corridors, lobbies, services rooms, basement, terrace etc shall be provided. For basement and wet areas, the degree of protection for the fittings shall be minimum IP 65. The minimum illumination requirement and other parameters shall be as per the NBC 2016 amended upto date. All LED Indoor lighting fixtures should be following parameters																				
		<table border="1"> <thead> <tr> <th>Description</th> <th>Parameters</th> </tr> </thead> <tbody> <tr> <td>CRI</td> <td>&gt; 80</td> </tr> <tr> <td>THD</td> <td>_<lt;10%< td=""> </lt;10%<></td></tr> <tr> <td>System efficacy</td> <td>minimum 100 lm/W at temp 0 to +45deg. C and humidity 10% to 9</td> </tr> <tr> <td>System life time (Burning Hour with driver)</td> <td>50000 hours @ L70 as per LM 70 report</td> </tr> <tr> <td>Driver voltage</td> <td>220-240V</td> </tr> <tr> <td>power factor</td> <td>&gt;0.9</td> </tr> <tr> <td>efficiency</td> <td>&gt;_85%</td> </tr> <tr> <td>Surge protection</td> <td>(L-N) 1KV, (E-L/N) 2 KV</td> </tr> <tr> <td>Color Temperature</td> <td>As per site requirement</td> </tr> </tbody> </table>	Description	Parameters	CRI	> 80	THD	_ <lt;10%< td=""> </lt;10%<>	System efficacy	minimum 100 lm/W at temp 0 to +45deg. C and humidity 10% to 9	System life time (Burning Hour with driver)	50000 hours @ L70 as per LM 70 report	Driver voltage	220-240V	power factor	>0.9	efficiency	>_85%	Surge protection	(L-N) 1KV, (E-L/N) 2 KV	Color Temperature	As per site requirement
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1.6	Fans/ Exhaust fans	Ceiling fans (min 3-star rating as per Bureau of Energy Efficiency) & exhaust fans/ fresh air fans in all residential units, services rooms, bathrooms/ toilets and in common areas shall be provided as per CPWD specifications and related BIS.																				
1.7	Earthing	Copper/GI plate earth pits and complete earthing system as required as per CPWD specifications.																				
1.8	Lightening Arrestor	Lightning Protection System as per IS/IEC 62305 standard & National Building Code (NBC 2016).																				
2	External Lighting & Power distribution	As per CPWD General Specification for Electrical Works Part II (External) – 1995 and relevant BIS, amended upto date																				

S.No.	Description of Work	Specifications																				
2.1	Cables	XLPE armoured cable copper/ aluminum between outdoor feeder pillar to termination box of pole etc. and wiring of suitable size between termination box to fitting i/c their termination. The power cabling should be sized to ensure that the distribution losses do not exceed 3% of total power usage.																				
2.2	Feeder Pillars	Outdoor type Feeder Pillars shall be suitable for 3 phase, 50Hz, 415 volts, A.C. system. Rating and size of Feeder pillar shall be as per designed load and requirement; The feeder pillars shall be as per CPWD specifications with MCB/MCCB/ACB as required. To be provided with astronomical timer/ photo sensor-based switching for outdoor and street lighting, to save energy.																				
2.3	Fittings	LED outdoor light fixtures (IP-66) of suitable lumen output / wattage for compound lighting; street lighting, Security light fittings at perimeter on boundary wall as required. The minimum illumination requirement shall be as per the NBC 2016 amended upto date. All LED Indoor lighting fixtures should be following parameters																				
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2.4	Street Light Poles	Octagonal GI poles with sliding door, single / double bracketed arm along the road as per IS standards. Ornamental/ Decorative poles and bollards with LED fittings may also be provided as per the site/client requirements.																				
2.5	Earthing	Copper/GI plate earth pits and complete earthing system as required as per CPWD specifications.																				
3	Electrical Sub-station	As per CPWD General Specification for Electrical Works Part IV Substation – 2013 and relevant BIS amended upto date covering 33kV/0.433 kV or 11 kV/0.433 kV substation equipment comprising HT panel, dry type/ Oil type transformers, HT cables, bus trunking from transformer to LT panel, LT panels, automatic power factor correction																				

S.No.	Description of Work	Specifications
		panel, active harmonic filters, TVSS (transient voltage suppression system), SPD (Surge protection system), essential panel, earthing, required inter- connections, substation safety equipment including LT cabling from substation to the buildings fed by the substation.
3.1	HT Panel	33KV or 11KV HT panel board; With required nos. of incomer (preferable to have atleast 2 incomers to have standby), bus coupler/s and required no of outgoing HT outgoing with VCBs, metering (in all panels and suitable for net metering) and protection equipment/ accessories and compatible for SCADA/ BMS as required.
3.2	Transformer	Dry type/ oil type Transformer, complete with online tap changer, and other accessories and safeties, cable end box etc. as per IS and having maximum losses as per table of ECBC 2017 code (as per ECBC building or better) with amendments, if any. The entire work shall comply with the latest CPWD specifications for substation and electrical works.
3.3	LT Panel	Main LT panel (normal supply) for receiving supply from Transformers and having ACB's/ MCCBs as outgoing; Main LT panel (Essential supply) for receiving supply from Transformers and DG sets and ACB's/MCCBs as outgoing; Main Sub LT Panel for supplying power to smaller loads having MCCB's as outgoing; The incomers rating of LT breakers of Main Panel shall match with transformer rating or next available standard ratings of ACB with requisite breaking capacity of for all the incoming and outgoing switchgears as per applicable fault level.
3.4	APFC Panels	APFC panel shall be provided on separate sections of main LT panel and having switching off arrangement in case of DG supply in the main panel; Designed capacity to maintain overall P.F. as applicable for ECBC building category or better (presently 0.97 or better)
3.5	Bus trunking	All Bus trunking and rising mains shall be compact air insulated/ Sandwich type, of required breaking capacity, complete with joints, fire barriers, tap off boxes, mounting arrangement etc. and of required degree of protection. Shall be used for the connections between the Transformer and main LT panel, LT panel to the rising mains, or as per specific site requirements.
3.6	Cables	HT Panel and transformers will be connected through three core 11/33 KV HT XLPE(E) of requisite capacity based on the current carrying and breaking (fault level) capacity; HT cable end terminations shall be Heat shrinkable type; These cables shall have individually screened cores and be manufactured and tested according to IS: 7098 (Part II) - 1973 amended up to date;

S.No.	Description of Work	Specifications
3.7	Earthing	Earthing sets, connections etc. shall be as per CPWD Specifications and relevant BIS
4	Diesel Generating Set	As per CPWD General Specification for Electrical Works Part VII DG Sets – 2013, relevant code, CPCB norms and local body norms covering DG sets, AMF panel, bus ducting/ cables from DG sets to essential panel, DG set enclosure room sound insulation/ ventilation/ smoke exhaust as required, earthing of DG set system, control cabling, fuel tank/ piping, DG set exhaust piping/ exhaust chimney as per CPCB norms, civil works connected with DG sets including foundation as required. DG sets shall be silent type, minimum rating/ capacity specified is nominal capacity at standard test conditions; The DG set capacity shall be suitable for the load covering common area lighting, outdoor lighting, lifts, water supply pumps, sewerage and drainage pumps, firefighting essentials and other essential power supply requirements as per site requirements.
4.1	Engine	The engine shall be capable of driving the alternator continuously at its rated full load and rated speed without getting over loaded under the prevailing operating conditions
4.2	Alternator	Generator Sets shall be 415V, 3 Phase, 4 wire, 50Hz, 0.8 PF with acoustic enclosure
4.3	AMF Panel	Generator sets shall start automatically in the event of a power failure and shall transfer power to emergency / critical loads automatically and shall switch off after some time delay in case of restoration of power supply. Synchronisation arrangement to be provided in case of parallel operations, where more than 1 DG set is installed and such arrangement is required as per site requirement.
4.4	Exhaust Pipe	As per CPWD General Specification for Electrical Works Part VII DG Sets – 2013, relevant codes and CPCB/ local body norms
4.5	Cables	Complete Electrical and control wiring for various accessories etc.
4.6	Earthing	Earthing sets as per CPWD Specs and relevant BIS
4.7	Fuel tank	As per OEM standard/ site requirement.
5	Fire Fighting and Wet Riser System	Fire Protection System including Sprinkler System, wet-risers, down comer, Yard-hydrants, internal-hydrants, first aid hose reels, electrical and diesel engine driven pumps etc. designed and provided as per provision given in NBC 2016, relevant BIS Codes, local Fire Bye Laws & CPWD Specification Part V-2020, all with up-to-date amendments; Pipe materials and other fixtures for Fire Fighting, plumbing work shall be as per CPWD specifications.
6	Fire Alarm System	As per CPWD's General specification for Electrical Works, Part -VI Fire detection and Alarm system-2018, NBC 2016,



S.No.	Description of Work	Specifications
		IE Rules, BIS/IEC, Indian Standards amended upto date; covering Manual/ Automatic Fire Alarm System complete with items like detectors, manual call boxes, cabling/wiring, fire panels, etc. including Integration of FAS panel with Smoke Ventilation & pressurization fans, AHUs, Lifts, sprinkler monitoring panel, water curtain system, water levels of Fire water tanks and as required for any other service.
6.1	Cables	Either copper conductor Armoured Fire survival cables of suitable size or copper wire in heavy duty MS conduit of suitable size shall be used compliant to the relevant IS
6.2	PA System	Public Address System with Audio Amplifiers, speakers & required wiring shall be provided to cover all the areas as per the requirement of CPWD specifications, NBC 2016 and local body.
7	IP BASED EPABX System	IP based EPABX System comprising of core switches & L2 switches with 10 G, 10 giga SFP modules, industry standard appliance server, cloud-based, enterprise-grade UC solution, MID/Entry level IP/SIP phone with, dual 1 gig ports, racks, CAT-6A cable, patch panels, OFC etc.
8	CCTV Surveillance System	As per good Engineering practice or as required under the codes or by local/statutory authorities compliant to relevant Indian standard 13252; IP based CCTV system for building security comprising of PTZ/ fixed camera, cabling, digital recording, HD display system with minimum display of 5" x 8" per camera and hardware & software support both for indoor and external surveillance IP based Closed Circuit Surveillance system is proposed to monitor the activities at critical areas. The video is continuously transported to existing server, using IP cameras; The items supplied by the contractor should have specifications compatible with each other required for satisfactory operation of the system
9	Mechanical Ventilation System	The system shall be provided as per National Building Code of India- 2016 and requirement of the local body, CPWD General Specifications for Heating, Ventilation and air conditioning work-2017 and relevant I.S Codes; The system shall be designed and provided to achieve rate of air change in various ventilated areas as prescribed in NBC-2016 and local building bye- laws/ requirements.
9.1	Fans	All the fan motors which will operate in normal mode shall have IE-3 efficiency. The fan motors required to be operated during fire mode shall be minimum IE-2 efficiency
9.2	Ducting	The Staircase, Lift Lobby & Lift Well pressurisation shall be designed and provided as per provisions given in NBC

S.No.	Description of Work	Specifications
		2016 and Local by laws. Scope of works include GSS ducting, grills, louvers and all associated works and shall be executed as per CPWD specifications; The pressurization system shall be integrated with fire alarm system for automatic operation on command from fire detection system
10	Lifts	The lifts shall be with power operated centre opening doors and AC variable voltage & variable frequency controls, Car safety & Governor, Guides, guide rails, ropes, car platform, cabin finishes (stainless steel), car & landing doors (stainless steel), hoist motors, braking system, Automatic Rescue Device (ARD) etc complete as per the CPWD Specifications and related IS standards upto date. Provision of lifts will be made as per National Building Code-2016 / relevant BIS amended upto date) considering no of floors, height of the building and speed of elevators; At least one lift in each block be made compliant to barrier free and accessibility requirements as per CPWD specifications & capacity to be minimum 13 passengers for barrier free lift; One lift in each tower should be goods / bed lift, with size and capacity of lift car to be designed accordingly. Provision of fire lifts shall also be ensured as per local fire authorities requirements/ bye laws.
11	Sewage/Effluent Treatment Plant	STP/ETP shall be based on suitable technology to meet the requisite norms of treatment of sewage to achieve required quality of output water as per local body/ CPCB/ local pollution board, MoE&F, NBC 2016 norms; The work shall be inclusive of interconnecting piping between all units, valves, gates and all other accessories and devices as required, all mechanical equipment duly protected against corrosion, all electric drives, pumps, motors control centers, power and control cables (except main incoming feeder and yard lighting), all instrumentation, control cabling, panels complete in all respects. Water meter on outgoing treated effluent for measuring the outflow should be provided; Dewatering pumps (with automation) as required with 100% standby pumps. It shall be complete with required civil works (except) plant room, storage chambers, tertiary treatment etc for the building/ campus.
12	Hydro pneumatic Water Supply System	Shall be complete with pumps, pneumatic tank, microprocessor-based control panel, VFD, interconnecting pipes, valves, cabling and switchgears. Water supply pumping stations with auto control panels

S.No.	Description of Work	Specifications
		<p>shall be provided for filling terrace tanks of water supply system/ direct pumping for building/s /residential unit/s as required. It shall be designed and provided to meet water demand as per provisions given in NBC-2016.</p> <p>Each pump of pump set shall be with variable frequency drive and each set shall have one standby pump;</p> <p>All pump motors shall be of minimum IE3 efficiency rated (except dewatering pumps, where IE2 is acceptable).</p> <p>Each pump shall have an efficiency of more than 70% at selection point;</p> <p>Type, Pressure, Head and discharge of the pumps, sizes and type of valve shall be designed for proper service</p> <p>Pumps may be required to be monitored, controlled and operated through BMS in normal case, hence the pumps panels starter should have potential free contacts for integration in auto mode. However, a local manual override facility shall be provided</p>
13	Roof Top Solar PV Power Plant	<p>Roof top grid interactive solar photo voltaic plant system shall be inclusive of the Solar panels of prescribed efficiency, mounting structure, cabling, inverter, panel, metering devices, earthing, lightning protection complete as per state-of-the-art technology as per good engineering practice compliant to relevant Indian standards/ local/statutory authorities/MNRE guidelines.;</p> <p>The capacity of plant shall be derived as per available space on terrace of the buildings;</p> <p>High efficiency PV cells with high efficiency invertors shall be used. Minimum power output guarantee offered for the SPV Module shall not be less than 25 years;</p> <p>Invertors/Power conditioning unit (PCU suitable for mains as well as DG supply) as required. However, capacity of each inverter should not be more than 30 Kwp;</p> <p>The inverter output shall always follow the grid in terms of voltage and frequency;</p> <p>AC collection Panel with metering to monitor generation at the terrace and AC cabling from Panel to receiving switch;</p> <p>Measuring devices i/c net metering, indication devices, protection devices, switching devices, all necessary wiring, DC and AC cabling including feeding power to essential supply by providing necessary tap off boxes;</p> <p>Mounting structure of GI on terrace of the building, protection of system for external / internal causes and from all kind of surges etc.;</p> <p>Earthing and Lightning protection of Solar system</p>
14	Solar Water Heating System	<p>As per good engineering practice; As per capacity requirement of individual house, meeting the minimum local body requirements for each house.</p>

S.No.	Description of Work	Specifications
		<p>Solar water heating system with heat exchanger type including electrical heater backup, make up water tank but without external piping.</p> <p>Solar water heating system shall be compliant to IS:12976:1990 with latest amendment with Solar Flat Plate shall be BIS marked and as per IS :12933/2003 with amendment 1 to 3 and Hot water storage tank shall be of SS 316 grade. Tank shall be insulated with 100 mm thick glass wool insulation not less than 80 kg/m<sup>2</sup> density &amp; wrapping by 24g aluminum sheet.</p>
15	Access Control System	<p>As per good engineering practice or as required under the codes or by local/statutory authorities;</p> <p>Access control system with Controller, E&amp;M Locks, Biometric /NFC/Card reader and smart cards, cabling, display system, hardware and software. The system includes cards for required number of persons (as per site requirement) and a visitor management system, attendance monitoring system.</p>
16	Boom Barrier	<p>Electromechanical boom barrier with all accessories upto 6 meter length; consisting of a fixed housing and a movable arm; in two pieces without central support, electrically operated from security/guard- room through push buttons;</p> <p>Barrier Housing Unit: Powder Coated; Boom: Powder Coated White RAL 9010m or approved color with Red reflective strips having IP 44 (Barrier Body) &amp; IP 67 (Control Card Box); All Aluminum Housing with Base frame in SS-304 for high protection against corrosion; Operator console, necessary hardware, software, Power, and control cabling etc. as required</p> <p>It should have anti-crush safety mechanism to suspend the motion of barrier when met with any obstruction;</p> <p>Quick opening and closing of barrier with soft landing;</p> <p>Speed of barrier should be programmable while installing as per frequency of traffic;</p> <p>Provision to integrate with other peripheral devices like Access Control System, Beam sensors;</p> <p>It should be activated by a single push button and with an option to operate wirelessly through remote. In addition, it must have provision to operate on electronic signals from Access Control System;</p> <p>Safety device like beam sensor should be provided with the barrier; Barrier should have clamping mechanism in open and closed positions;</p> <p>Control system (gear unit, crank drive and control unit etc) should be housed inside a stainless-steel pole stand casing;</p>

S.No.	Description of Work	Specifications
		It should have distinct visible marking/ paint work. The barrier body should be treated with 100 micro epoxy zinc plating anti corrosion paint.
17	Driver face and automatic number plate recording system/ recognition system/	<p>Driver face and automatic number plate recording system/ recognition system including high resolution camera and software set for the driver face capture and automatic number plate recording;</p> <p>ANPR system shall be complete with all required hardware, software, license, 2 HD cameras of requisite specifications ( Minimum 2 MP, progressive scan with Day/Night function WDR or better, lens, with resolution 1280 X 1024 or better), for capturing number plate and driver's face, minimum 30 days recording capacity in HD, archive of vehicle entry and exit data base, recording of vehicle plate photo, heavy duty central monitoring console (Server) 32" display with required operating system, LAN switches, cabling in surface/ underground , ANPR server, operating system and spare hard disks. The system shall be able to process and read number plates of vehicle with speed upto 80 KM per hour and have feature for alert generation, vehicle log, central management module with system accuracy of minimum 90% + vehicle plate detection.</p>
18	Integrated Building Management System	<p>Integrated Building Management System for digital/ electronic display, monitoring and control of specified E&amp;M systems like substation, DG sets, UPS, Solar PV system, lifts, AC plants, ventilation systems, fire protection systems, water supply pumps etc. to include cabling, monitors, recording, display system, hardware, software support as per good Engineering practice or as required under the related codes;</p> <p>The IBMS would comprise the integration of various independent systems on a common system;</p> <p>The BMS shall use a series of Dedicated Controllers, located in different parts of the building to Control and Monitor following (based on availability of services in the building/project):</p> <ul style="list-style-type: none"> <li>• HVAC and Ventilation equipment</li> <li>• Water supply and drainage pumps</li> <li>• Façade lighting/ Street lighting/ area lighting Monitoring/ Status only for</li> <li>• Lifts</li> <li>• UPS</li> <li>• Fire Fighting pumps status</li> <li>• Fire Alarm System</li> <li>• HT Panel &amp; main LT Panel</li> <li>• DG Set/s</li> <li>• Access Control System</li> </ul>

S.No.	Description of Work	Specifications
		<ul style="list-style-type: none"> <li>• STP</li> </ul> <p>All required hardware (server, DDC, Network switch, panel, IO devices, LAN cabling, wiring, software, field devices, control and sensor cables, integration etc complete as required for successful commissioning and operation of the system.</p>
19	HVAC System	<p>The work shall be executed as per CPWD General Specifications for Heating, Ventilation &amp; Air Conditioning Works-2017, relevant IE rules, relevant IS amended upto date.</p>
20	UPS System	<p>The UPS system shall be online 3 phase with 30 min backup or more including batteries, inter connecting cable, battery racks.</p> <p>Each UPS module must have the following built in parts/features: IGBT PWM Rectifier based input charger (float cum equalizing) IGBT /technology based Inverter. Automatic Bi-directional Static switch; Inbuilt Manual Bypass Switch;</p> <p>K 13 Copper Wound Galvanic Isolation transformer at UPS Output after the static Galvanic inverter output isolation transformer (inbuilt). switch as per IEEE 1100-2005 in a separate cabinet (inbuilt);</p> <p>Fully Microprocessor Controlled Circuitry;</p> <p>Inverter with stipulated Switching Frequency:with PWM controlled using DSP logic. Analog control shall not be acceptable;</p> <p>A UPS shall be tested against EMC (Electromagnetic compatibility) category C2;</p> <p>Inbuilt/External Back Feed protection shall be provided</p> <p>Input phase reversal protection &amp; Correction (The system should run in mains operation in spite of phase sequence reversal) &amp; same should be shown is SLD.</p> <p>Provision for separate Input for rectifier and for Bypass</p> <p>Event Monitoring &amp; Diagnostics Last 100 events with exact date &amp; time should be monitored from the front LCD panel of the UPS &amp; upto 900 events from UPS system memory using Laptop.</p> <p>The input voltage window must be from 340 V to 460 V at full load</p> <p>The UPS system shall be continuous duty, highly reliable and solid state. The system shall be modular in design so that any individual unit can be easily isolated/taken out for repair or any additional added in future for increasing the capacity;</p> <p>The UPS shall be fully microprocessor controlled till the level of rectifier/inverter;</p> <p>UPS system output must be independently brought out to the UPS and synchronized (voltage, phase angle and</p>

S.No.	Description of Work	Specifications
		frequency must be equal). The provision of parallel operation and automatic bypass shall be provided as per the site-specific requirements. The design manufacture, inspection, testing and installation of the UPS System covered under this specification shall conform to the latest international standards such as: EN 62040-1 - General Safety Regulations. EN 62040-2 - EMC Regulations
21	Battery	Battery should be designed to provide 30 minutes back up or more as required. Battery should be 12V lead acid type maintenance free batteries sealed maintenance free type. The UPS module shall have the Battery Circuit breaker mounted in the battery Rack. When this breaker is opened no battery voltage should be present in the UPS enclosure. The UPS module should be disconnected automatically when the battery reaches to the minimum discharge voltage level or when signalled by other control functions.
22	LAN System	High speed Data Networking system is to be provided. Work shall include all passive and active components excluding server; LAN System shall comprise of core switches & L2 switches with 10G, 10 giga SFP modules, Wi-Fi access points, Wi-Fi controller, network management software, racks, CAT-6A cable, patch panels, OFC etc complete as required.
23	Emergency Light & Illuminated Signage	Exit signs shall not exceed 5 W per phase as per ECBC-2017; Self-contained rechargeable emergency exit light with minimum 6 hours battery backup; IP 20 rated; Confirms to IS : 10322 ( part-5 / sec1) : 2012, Single side / Double side facia as per requirement of location installed.

**Notes:**

- 1) Concealed wiring shall be used in all electrical works
- 2) The following green measures are to be followed for electrical works-
  - a) LED light fixtures
  - b) BEE certified 5 star rated fixtures.

### **5.3.2. ADDITIONAL TECHNICAL SPECIFICATIONS FOR ELECTRICAL AND MECHNAICAL WORKS**

#### **I). CONDITIONS FOR ELECTRICAL WORKS:**

##### **Activities to be performed for Electrical system:**

1. The scope of work includes Planning, Design & preparation of drawings, obtaining all type of approvals, including supply, Installation, testing and commissioning of the following:
2. Internal electrical installations, Distribution Board, DG set, Starters, Pumps, power wiring and plugs, lightning protection, telephone and data networking conduits, LAN cabling, telephone wiring, exit signages, LT cabling works, emergency lighting, earthing, LT main panel board, telephone and data networking, LED light fittings, modular plate type Switch boards with switches, plugs and accessories, MCB DBs with all required switch gears and accessories, sub main wiring, termination and allied works, automated car parking system, CCTV, access control system with HMI interface and door locks etc. as detailed in additional particular specifications of this document.
3. Bringing and laying as per specifications of the already laid LT power cable inside the MLCP building including termination of LT cable to the main LT distribution panel board of the MLCP building shall be made by the agency.

##### **Electrical system shall be provided as per the following applicable codes:**

<b>S. No.</b>	<b>Code No.</b>	<b>Application Details</b>
1	IS-10118 (Part I), 1982	Code of practice for selection, installation and maintenance of switch gear & control gear.
2	IS-732, 1989 Rev.3	Electrical wiring system
3	IS-3043, 1987	Code of practice for ear thing
4	IS-13032, 1992(Rev.2)	MCB distribution boards for voltage upto and including 1000V AC
5	IS-12640, 1988	Residual current operated circuit breakers
6	IS-649, 1990 (Rev.-3)	PVC insulated cabled for working voltage upto and including 1100 V AC
7	IS- 9537 (Part-I), 1980	Conduits for electrical installation general requirements
8	IS-13118, 1991	Circuit breakers- general requirements
9	IS-13947 (Part-III), 1993	Air brake switches for voltage not exceeding 1000V AC or 1800 V DC
10	IS-1248 (All parts), 1983, 1984,1993	Electrical direct acting instruments
11	IS-2147, 1962	Degree of protection provided by enclosures for LV switches gear and control gear.
12	National Electrical Code Part-4Appendix	Recommended values of illumination and limiting values of glare index-Industrial Building (parking space Indoor and outdoor)

#### **SPECIAL CONDITIONS FOR ELECTRICAL WORKS**

**I.E. Rule and Approval of Electrical Safety Dpt. And Meghalaya Energy Corporation Limited (MeECL):** The complete electrical work shall be done as per the Indian Electricity Rules amended till date and as per relevant I.S. specifications amended till date. The Electrical Installation and all Related Drawings shall be got approved from Electrical safety dept. at no extra cost. The amount deposited by the contractor in Govt. Treasury for inspection of Electrical Safety Dept. shall not be reimburse to the contractor. The approved Drawings and Inspection Report of Electrical Safety Dept. shall be submitted to Engineering Incharge in original.



The Electrical Contractor /Sub Contractor carrying out all Electrical Work Must possess a Valid 'A' Class Electrical Contractors License Issued by Electrical Safety Dept. Govt. of Meghalaya.

The contractor shall make his own arrangements for supply of water and electricity at his expense required for execution of work. The SSCL shall neither make any such arrangements nor shall make any payments in this regard.

The contractor shall not be entitled to any compensation for any loss suffered by him on account of delay in commencement or execution for work whatever the cause of delay may be including delay arising out of other materials, supply of materials, transportation for any matter related with Meghalaya Energy Corporation Limited (MeECL) & Electrical Safety Department or any other reasons whatsoever, the SSCL shall not be liable for any claim in respect thereof.

Safety, security of the items installed by the contractor at site shall be responsibility of contractor at his risk and cost for the entire execution period and during the Defect liability period. The contractor shall have to get insured all material installed by him against any damage, accident or theft.

The contractor shall be responsible for the safety of his labour and other engineers, staff deputed by him and any citizen at site at his cost and risk. The contractor shall have to get insured all of his labour, engineers and other staff, third party against any accident, injury or death. SSCL shall not be responsible for any accident, loss, injury or death of any contractor's or third-party person whatsoever.

General Arrangement (GA) and Electrical drawing of the various panels should be approved by the Engineer in Charge of SSCL.

Final decision will be taken by SSCL Engineering In-charge.

The contractor shall design the illumination scheme with LED type fixtures, brackets, smart controls, software, panels and circuits offered by his company to achieve the lux levels and smart controls as per tender guidelines for each get it approved by Engineer in Charge.

The contractor shall give the inspection notice before or at least 10 days prior to the last date of supply of any batch of material. The material will be dispatched by the supplier after inspection by the representatives of SSCL if required by Engineer in Charge.

SSCL's representatives will visit the manufacturer's work and witness the tests as per specifications on each type of lighting fixtures as per the samples selected by SSCL's representatives. The sample of the material may also be sent to the government approved NABL laboratory at the cost of contractor for any kind of specific test required by SSCL. Supplier shall submit the schedule with date, time & venue of the inspection to SSCL in writing for the inspection of material. SSCL is authorized to get the material tested from the approved laboratory at the contractor's cost for any kind of specific test if required. The contractor needs to make arrangements for Factory Inspection at his own cost for Luminaires, Pole, Brackets etc. Inspection will be carried out at manufacturer's premises only.

LED luminaires and Poles should conform to the various National / International standards for safety & performance.

It shall be the duty of the contractor to arrange all clearances, NOCs from Electrical Inspector Meghalaya Electrical Board, to coordinate and peruse the officers of Meghalaya Energy Corporation Limited (MeECL). For periodical inspections during the currency of contract and final inspection of the

work and get the complete installation electrically charged and also contractor shall be responsible for arranging such clearances No extra payment shall be made to the contractor in above account.

Post installation and commissioning, the contractor shall be responsible for maintenance of entire electrical installation and lighting system installed by him for the period of 5 years on his own risk and cost basis. The responsibilities of contractor shall be as mentioned below:

- To ensure timely automatic switching on/Off as per programme.
- To ensure that all lighting fixture and associated panels, controls, automation, software etc. are in working condition all time.
- To ensure that if any lighting fixture or component develops any fault, it has to be rectified promptly to escape the penalties mentioned in the tender.
- To carry out preventive maintenance of the system as required.
- To coordinate with Meghalaya Energy Corporation Limited (MeECL) / power distribution company to ensure the smooth operations.
- To ensure the insurance of entire lighting system, Engineers, staff, labour, workmen all which are involved in the work on his own cost.
- To replace the damaged component in the lighting system if the same is damaged due to accident. The contractor has to replace the damaged Poles, Light Fixture. For this Extra payment shall be made as per quoted Tenders Rates.
- The contractor shall ensure to provide proper tools, tackles, hydraulic trolley vehicles, ladders, vehicles, instruments etc. to ensure smooth running of lighting system and safety measures.
- The contractor shall establish store and testing facility to ensure proper stock of spares and facilitate testing of all components of lighting system.
- All workmen, staff and engineers of contractor shall ensure that all installation, maintenance activities are carried out with full safety and by using all safety aids like helmets, gloves, earthing devices, testing gadgets.
- The contractor must ensure that electrical earthing shall be provided as per rules and IS codes in entire lighting system to ensure human and equipment safety.
- Coordination with SSCL engineers and staff during work execution shall be in contractor's scope.
- In five-year, operation and maintenance period all the expenditure including electrical bills etc. shall be borne by contractor.

**APPROVED MAKES:**

- LED fixtures Make Phillips /Bajaj / Wipro / Havells or Any other national or multinational & internationally reputed brand with good presence in India, upon prior approval by SSCL Engineer in Charge.

(Models of these makes which conforms to the technical specifications of this tender upon prior submission of sample for approval of SSCL Engineer in Charge).

- Wire / Cables Finolex / Havells / Polycab / RR
- Switchgear, timer, contactor etc L&T/ ABB/Siemens / Hager/ Legrand
- Smart control hardware: reputed make with five years warranty.
- Transformer / CSS 11KV/.440Volt Make Should be Siemens, Schneider electric, ABB.
- DG Set Make Should be Cummins, Kirloskar, Sterling Wilson.
- UPS / Inverter: EXIDE, Luminous, Zebronic, V-Guard.

**II). CONDITIONS FOR FIRE WORKS:**

**Activities to be performed for Firefighting System:**

1. The Contractor shall provide the fire safety arrangement as per National Building Codes/ DIS codes or any widely accepted international codes.
2. The Contractor shall design the system to provide the required firefighting equipment and facilities conforming to relevant standards and the applicable rules and regulations.
3. Fire safety measures as recommended in applicable codes (Indian as well as International) listed in Point 3 shall be implemented. Specifically, the firefighting system shall be adequate to control petroleum fires.
4. Planning designing and providing required firefighting system for the proposed MLCP building shall be as detailed in particular specifications under relevant sub head including the provision of overhead tank for static storage of fire services, terrace / Ground Mount pump sets, hydrants, extinguishers, sprinklers, provision of refuge area, fire stair case, other architectural aspects, manual fire alarm system, etc. and shall all to the entire satisfaction of local municipal & Fire Authorities.
5. Construct the Parking Facilities' structure with non-combustible material without a specified fire resistance. In addition, those portions of the facility used for the transport and / or storage shall have a finish of non-absorbent, non-combustible material.
6. Specifically, the firefighting system shall be adequate to control petroleum fires. Provisions shall be made in an Automated Parking Facility that leakage of gasoline tanks or other flammable fluids are collected during transportation and storage of the vehicle. Where the Automated Parking Facility is located below a building, a 2-hour fire resistance rated separation shall be provided between the Automated Parking Facility and the adjacent space use.
7. As the nature of an Automated Parking Facility provides the means to transport a vehicle without human interference, provisions shall be provided to detect a vehicle on fire and to transport it to a fire extinguishing cell at a space on ground- floor, easily accessible for fire-fighters.
8. Provide measure to prevent fire. Fire extinguisher and buckets of sand to be provided in fire-prone area and elsewhere.
9. Comply with the safety procedure, norms and guidelines (as applicable) as outlined in NBC 2016 (BIS 2005).
10. The contractor shall obtain all mandatory approvals including prior NOC and post installation approvals and No-Objection Certificate/ Consent for Establishment from local body authorities like local Fire department, local town planning authority, local ground water authority, local electricity supply authority, local pollution control board, Forest department, Environmental clearance, Meghalaya State Electrical inspectorate/ Central Electricity Authority, Airport Authority of India (AAI) etc at his own cost.
11. After completion of the installation, the same shall be offered for inspection by the representatives of the Meghalaya Energy Corporation Limited (MeECL), Meghalaya State Fire & Rescue Services, Pollution control board and other statutory body(s) as required. The contractor will extend all help including test facilities to the representatives of statutory body(s). The observations of the statutory body(s) shall be attended by the contractor at his cost. The installation will be commissioned and deemed to be completed only after getting clearance/NOC as above.
12. The contractor shall have to produce all the relevant records to certify that the genuine equipment's from the manufacturers has been supplied and erected.

**Fire Fighting system shall be provided as per the following applicable codes:**

2190 1992	Code of practice for selection, installation, and maintenance of portable first aid fire extinguishers (third revision)'
NFPA 72	National Fire Alarm and Signalling Code
2189 2008	Selection, installation, and maintenance of automatic fire· detection and alarm system code of practice
11360: 1985	Specification for smoke detectors for use in automatic electrical fire alarm system
2175: 1988	Specification for heat sensitive fire detectors for use in automatic fire alarm system
940 : 1989	Portable Fire extinguisher, water type (gas cartridge)—Specification ( <i>fourth revision</i> )
1641 : 1988	Code of practice for fire safety of buildings (general): General principles of fire grading and classification ( <i>first revision</i> )
2171 : 1999	Specification for portable fire extinguishers, dry powder (cartridge type) ( <i>fourth revision</i> )
2878 : 2004	Fire extinguisher, carbon dioxide type (portable and trolley mounted)—Specification ( <i>third revision</i> )
4308 : 2003	Dry chemical powder for fighting B and C class fires—Specification ( <i>second revision</i> )
4862 (Part 1):1986	Specification for portable fire extinguishers for air craft: Part 1 Halon 1211 type ( <i>first revision</i> )
4947 : 2006	Gas cartridges for use in fire extinguishers—Specification ( <i>third revision</i> )
6234 : 2003	Portable fire extinguishers, water type (stored pressure)—Specification ( <i>first revision</i> )
7673 : 2004	Firefighting equipment—Glossary of terms ( <i>first revision</i> )
8149 : 1994	Functional requirements for twin CO <sub>2</sub> fire extinguishers (trolley mounted) ( <i>first revision</i> )
10204: 2001	Specification for portable fire extinguisher, mechanical foam type ( <i>first revision</i> )
10658: 1999	Specification for higher capacity dry powder fire extinguisher (trolley mounted) ( <i>first revision</i> )
15397: 2003	Portable fire extinguisher mechanical foam type (stored pressure)—Specification
15683: 2006	Portable fire extinguisher—Performance and construction

Where the aforesaid are silent on any aspect, the following standards in order of preference shall be adopted in consultation with the Engineer-in-charge, unless otherwise specified in this schedule:

- (i) Euro norm standards En: 14010: 2003 for parking structure safety.
- (ii) American National Standard Institute (ANSI)
- (iii) International standards organization (ISO)
- (iv) British Standards (BS)
- (v) National Fire Protection Association of America (NFPA)
- (vi) Safety code of Mechanized Parking (Vertical rotary/Puzzle) garage equipment of America (ASA.A113.1)
- (vii) American Society of testing materials (ASTM)
- (viii) International Society for Measurement and Control (ISA)
- (ix) ISO 9000
- (x) KIS & JIS Standards
- (xi) Americans with Disability Act Accessibility Guidelines
- (xii) American Association of State Highway and Transport officials (AASHTO)
- (xiii) American Society of Mechanical Engineers code on storage retrieval (S/R) machines and associated Equipment (ASME B30.13)

- (xiv) National Mechanical code of America (NMC)
- (xv) Any other standard proposed by the Bidder and approved by the Owner /Architect.

### **III). SPECIFICATION FOR ROOF TOP SOLAR**

Supply, Installation Testing and Commissioning of on grid Solar Photovoltaic Power Plant conforming to MNRE specifications as amended, consisting of Mono/Poly Crystallin) silicon solar cells, net metering facility, necessary protections, earthing, mounted on Aluminium/GI structure of suitable strength with following components complete as required: -

- Solar Photovoltaic Module of capacity 330 Wp or above, manufactured in India, conforming to IS 14286/IEC 61215, IS/IEC 61730-(Part-1), IS/IEC 61730-(Part-2). Solar Photovoltaic Module conversion efficiency shall not be less than 16.5%. PV modules used in solar power plants/ systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years."
- Power Conditioning Unit (PCU) of 350-800 V DC Input voltage range and 400 V AC, three phase, 4 wire, 50Hz +-2.5Hz, output voltage suitable to generate AC Power with efficiency not less than 97%, total harmonic distortion less than 3 % and suitable for ambient temperature from 0 to 50-degree C. The PCU shall adjust the voltage and frequency level to suit the Grid Voltage Frequency.
- Data Monitoring System complete with accessories.
- Fixing of Array junction box & Main junction box with IP 65 protection and termination arrangement for incoming and outgoing cable along with glands, lugs and other accessories etc. as required.
- Lightning and surge voltage protection.
- Connections & Interconnections by supplying & fixing required size XLPE insulated copper conductor 1.1 kV grade armoured power and control cables between solar modules, main power cable to grid supply PCU unit along with supplying & fixing of necessary channel / conduit lugs and other accessories etc. as required."
- Including Comprehensive Maintenance as per CPWD/ MPWD specifications.

### **IV). Light:**

1. Adequate lighting system in parking facility area will have to be provided to achieve a minimum lux level for parking and pedestrian movement area, stairways, toilets, entrance and exit areas of parking.
2. The Entry Areas for Parking shall be provided with auxiliary emergency lighting system such that in the event of failure in general power supply the auxiliary emergency lighting system is activated immediately.
3. Power back-up adequate for 100% of the designed power load of the Parking Facility (except Walkways) and Office Space shall be provided. The generator shall be equipped to have a switch-over mechanism to be activated automatically in the event of power failure. The generator shall be installed in a separate soundproof enclosure.

### **V). Function of Entry / Exit Areas**

1. The Entry Area is the exchange point between drivers and machine or authorized operators as the case may be, as applicable, based on the technology provided and therefore special attention shall be paid to the smooth functioning of this exchange centre.
2. Each of the entry locations to the parking facility shall be provided with electronically controlled real time bay availability positions

3. Inside and outside Entry and Exit doors shall be provided to prevent drivers and animals from coming into contact with any moving elements of the system.
4. Means for catching of debris and drippings from the incoming cars shall be applied to avoid such drippings to cars and machinery inside the complex, during transportation and storage inside the system.
5. If the system has installed a radio frequency access system, the readers shall have enough range to detect approaching vehicles from at least 9 Meter outside of the Entry and Exit Areas.
6. The Automated Facility where authorized parking operators/assistants are utilized to park and retrieve the vehicles from the parking bays, shall be equipped with sufficient lobby space to hold the expected peak accumulation of drivers waiting for retrieval of their cars. The pay stations or other access readers shall also be located inside the Lobby. Also, sufficient electronic message centres shall be provided to guide the drivers to the respective location to meet their car.
7. The operator room shall be located near the lobby to enable the operator to assist drivers and to oversee the operation of the Parking Structure.

**VI). CCTV/ Surveillance System:**

CCTV system shall be provided with network-based recording for car entry and exit events as follows.

1. CCTV Camera are to be installed at every floor including Parking as required for surveillance purpose and are expected to cover the floor for basic level of surveillance. These cameras will not necessary be near the staff area and therefore should have features of protection from vandalization.
2. Strategic Camera to do all time recording (24 by 7); Camera should be capable of operate during night time without lighting.
3. Spare network port /Facility for integration of the same to the other related locations shall be made available.
4. The system shall be suitable for operation at 0 Deg.C to +40 Deg.C.
5. High Resolution Camera at entry point and exit point (supported with ANPR – Automatic Number Plate Recognition System software)
6. Minimum two number of camera units (one at entry and other at exit shall be provided for surveillance with the above accessories including NVR unit, rack for mounting of NVR unit, control wiring, all support systems, and accessories for successful functioning of the same. Networking devices shall also be provided, if required.
7. Automatic Number Plate Recognition (ANPR) system automatically captures the license plates of any vehicle(s) in the field of view (FOV) of a camera and stores them in database, so that details of the vehicles are available at any later point in time along with related video footage.
8. At entry and at exit two ANPR camera each at each end is proposed to capture vehicle number plates. ANPR recognition requires high resolution cameras with minimum specifications as per approved design.
9. CCTV Surveillance Software: The Feed from the all the cameras be captured and made available on computer screens in the operator room (s). A VMS (Video Management System) software be responsible for intelligent processing and meaningful display of data captured at all the cameras. VMS Client be installed at the Parking Lot and VMS Server be hosted on cloud. There should be a provision to buffer video data in the Operator Room of the Parking Lot. The buffered data should be compressed, encrypted and sent to VMS Database server hosted on cloud and must be stored at-least for 90 days. ICT Infrastructure only from those Cloud Service providers be purchased, which are empaneled by the DeITY (Department of Electronics and Information Technology), GoI (Government of India).

ANPR software to process the license plate image using OCR software for getting the registration number of the vehicle with highest possible accuracy be integrated with the VMS for the use of ANPR enabled cameras. Suitable cyber security software be used to ensure safe and secure information exchange.

**VII). User Account:**

The Contractor will provide the option of User Accounts for frequent System users. The User Accounts will have the following features:

- a. Ability to open an account online, through a smart phone app, or at a customer service kiosk
- b. Required data to open an account include the user's name, address, mobile number and vehicle license plate number(s)
- c. Ability to recharge the account using cash/cashless payment system.

**1. Fee Payment System**

The Contractor will create a fee payment system by which users can pay parking fees using a mobile phone or smart phone application. The payment system will:

- a. Register the beginning end of a Parking Event through a text message or through a Smart phone application.
- b. Send an alert when the duration of the Parking Event is about to exceed the user's balance.
- c. Send a response/confirmation message for all user actions
- d. Handle transactions by users with User Accounts
- e. Have the ability to differentiate charges based on the duration of the Parking Event

**2. Cashless Payment System**

With a view to reduce cash handling and provide further options for payment, SSCL is committed to deploy end-to-end smart parking management system in support of the cashless parking payment mechanism in multi-level parking. It allows Users to pay to park their vehicle using a mobile phone (payby- phone mobile app), bank card through a smart parking card instead of using physical currency in a parking.

Cashless parking provides a different way to pay for parking, especially if you don't have any change or you want to extend your parking session without having to return to your vehicle.

The system offers a wide range of benefits to customers, including choice of payment method, reminders that their parking session is due to end and the flexibility to extend their parking session using their mobile phone, thereby eliminating the need to over-book initially.

The software should process cashless payment transactions. Transaction can either be initiated via attendant or self-service POS or via the Internet or mobiles devices. The net-centric software should take care of processes such as transaction capturing, identification, authorization, forwarding of data to the target systems, including routing and switching, even across parking.

The below mentioned are the major components for cashless parking, which should be deployed at all the parking sites.

- a. Automatic Fare Collection (POS Terminals) - A reader modules will be integrated in entry & exit barriers of parking that enable payment through bank card (credit & debit card, J Card, third party mobile wallets).

- b. Pay-By-Phone (Mobile App) - Cashless parking is a quick secure way to pay for parking if you do not have to use the cash. A Pay-By-Phone mobile application will be developed, so that User will use their mobile phone instead of paying in cash the payment is made using their registered credit or debit card by registering on Pay-By-Phone mobile application or even without registering on Pay-By-Phone app by using guest check-out directly by paying the parking charges.
- c. Third Party Mobile Wallets (Free Charge, Paytm, Mobi-Quick, Phone-pe, Google Pay etc.)
- d. CARD (Citizen's payment card specific to Shillong)
- e. Vehicle Mounted Transponder (Electronic Tags)
- f. **E-Parking Permits** - In practice the car registration plate becomes the permit ANPR (automatic number plate recognition) systems. Once the car registration plate is registered with application the vehicle can be parked within the rules at that parking location the parking charges will be deducted from User e-wallet.
- g. **Contactless Payment Technology** - Reader modules should be integrated at the entry & exit barriers of parking that enable vending machine equipment component manufacturers to integrate contactless technology.

#### **VIII). IT System Control Centre**

The Bidder will create an API to integrate with city Command and Control Centre with the capability to provide summary reports, real-time information to Shillong Smart City Ltd. including but not limited to the following:

1. Number of vehicles parked on each parking bay
2. Details for each Parking Event
3. Vehicle license plate number
4. Vehicle type
5. User ID
6. Start time
7. End time
8. Location
9. Applicable Fees
10. Payment status
11. Applicable Fines
12. Details on enforcement for the activities of all enforcement staff
13. Assigned itinerary
14. Details of vehicles checked
15. Details of vehicles immobilized by the enforcement authorities.

#### **Website**

The Operator will create a website with the following functionality:

1. Displays real-time occupancy at multi-level locations covered under the System.
2. Provide a user account section with the ability to create a user account, modify the user profile, recharge the user's prepaid account, or pay fines
3. Displays real-time fines issued collected.
4. Have an English, Hindi and local language selection option.

#### **Smartphone Application**

The Operator will create smart phone applications for Android and iOS Smartphone operating systems, the features of the application should be as below:



1. Displays real-time occupancy multi-level parking locations covered under the System specific parking areas near the user's location
2. Provides a user account section with the ability to create a user account, modify the user profile, recharge the user's prepaid account, or pay fines
3. Available in English and Hindi languages
4. Displays real-time fines issued and collected to the enforcement authorities and link the same data to the ICC
5. Responsive interface to facilitate use on a wide range of devices and supporting both iOS and Android devices with different display sizes.

#### **RFID Entry/ Exit Device: (Long-Term User /Seasonal User)**

The Long-Term User entry/exit device is designed for the automatic processing of Long-Term User media like Staffs, Residents, employee, etc., at the entry or exit lane of a car park.

- a. Real time operating system (reduced risk of virus infection)
- b. Usage of robust flash cards as memory for operating system
- c. Stainless steel housing pillar with IP 65
- d. Temperature Range 0°C to +40°C, Air Humidity 0% – to 100%
- e. Terminal is designed for indoor outdoor use
- f. Tropicalized PCB's (PCB's is protected against humidity)
- g. Free choice of housing colour (RAL)
- h. RFID (Contactless) Long-Term User (Seasonal User) media, fully integrated into Car Park Management System.
- i. Presence checks for Long-Term User (Seasonal User) media
- j. Half-Duplex Intercom sub-station
- k. Industrial embedded PC for the self-sufficient control of the device
- l. 1,00,000 stored transactions – offline redundancy.

#### **Auto Gate/ Barrier**

The barrier is designed for the automatic access control of vehicles, triggered by a control terminal (e.g. entry device, exit device, or Express exit).

- a. Temperature Range 0°C to +40°C, Air Humidity 0% – to 100%
- b. Terminal is designed for indoor/ outdoor use
- c. Tropicalized PCB's (PCB's is protected against humidity)
- d. Free choice of housing colour (RAL)
- e. Maintenance-free barrier drive
- f. Useable as right-hand & left-hand drive, easily changeable on-site
- g. Fast opening closing times within 1.5 sec
- h. Barrier arm is equipped with a rubber edge on the bottom to prevent damage
- i. No parts needed (screw etc.) for replacement of run-off barrier arm

#### **Automatic Pay Station (Cash/ Credit Card/ Debit Card/ Mobile Wallet/ Card)**

The automatic pay station should be designed for the automatic processing of all payment transactions of Short-Term User media and Long-Term User (Seasonal User) media.

- a. Real time operating system (reduced risk of virus infection)
- b. Usage of robust flash cards as memory for operating system

- c. International standard proven network technology (Ethernet)
- d. LED full graphic colour touch screen display
- e. Stainless steel construction with structure effect painting
- f. Temperature Range 0°C to +40°C, Air Humidity 0% – to 100%
- g. Terminal is designed for outdoor use
- h. Tropicalized PCB's
- i. Free choice of housing colour (RAL)
- j. Customized inscription on front plate (e.g., "PAY PARKING HERE")
- k. Illuminated Top with customized inscription (e.g., "PAY PARKING HERE")
- l. Illuminated user guidance of all entry slots dispensing slots
- m. Multi-rod security cabinet locking facilities with nine (9) locking points at the door
- n. Protective 4-Lock-System with high level security quality, high level key copy protection, highest level of drilling & core pulling protection highest manipulation protection
- o. Receipt printer
- p. Deactivation of the customer display after a pre-set switch-off time following last payment
- q. Unit can be set into "standby" mode with reduced energy consumption, based on a freely definable time profile.
- r. Remote or manual wake-up command (wake-up by motion detection via radar)
- s. Payment of Short-Term User (Hourly User) media.
- t. RFID (Contactless) Short-Term User (Hourly User) media processing calculation of tariff.
- u. Payment of over stay fees for Long-Term User (Seasonal User) media.
- v. Extension of validity of Long-Term User (Seasonal User) media with pre-payment contract.
- w. RFID (Contactless) Long-Term User (Seasonal User) media, fully integrated into Car Park Management System.
- x. Automatic production of parking media as substitute for a lost Short-Term User media at a fixed rate by pressing a button
- y. Remote handling of substitute parking media for processing of lost Short-Term User media.
- z. Half-Duplex Intercom sub-station
- aa. Interface to Integrate CCTV Camera
- bb. Industrial embedded PC for the self-sufficient control of the device
- cc. Barcode/ QR-Code Scanner for processing of third-party barcodes as means of payment or discount
- dd. Software evaluation of third-party Barcodes/QR-Codes as vouchers.

**IX). HARDWARE, SOFTWARE, FACILITIES**

- a. To provide install necessary complete hardware and software solutions, such as but not limited to boom barriers, auto pay station, devices, port-cabins, switches, gateway, guidance system, for multi-level parking system.
- b. Provide Parking Management and Parking Guidance System to direct drivers to available parking slots through LED signage also through Smart Parking Mobile Application.
- c. Provide and install necessary LED signage which also includes variable messages sign board for guidance to public regarding availability of parking spaces other necessary information.
- d. Create API that can be integrated to the city Integrated Central Control & Command Centre (ICCC) for viewing, analysing, storing and retrieval of the data to manage the Smart Parking;
- e. Install, operate and maintain an IT system, for parking fee payments, monitoring, and enforcement. Procure software hardware for the processing of customer payments via credit card, net banking, mobile-based banking systems, other media; the impetus is on cashless payment system at all the parking lots.

- f. Smart Parking Mobile Application for parking services: App shall show the available slot on real time basis, booking of parking space, payment mechanism through various modes of payment, reservation for specially-able citizens, facility for extension of pre-booked parking space.
- g. Comprehensive operation maintenance of all hardware software installed for this project throughout Operation & maintenance period.
- h. Procure hardware software to aid in the planning monitoring of enforcement activities.
- i. To provide install thermal cum optical/IR sensors at each of the parking slot for cars for all surface parking lots. All parking slots should be individually clearly marked, mapped with parking sensors and have appropriate camera coverage. All sensors, devices equipment should have the capability to communicate back and forth with the ICCC for information feedback through a RF/ Wi-Fi/GPS or any combination of them in the enabled system
- j. Establish the required facilities, equipment, information systems for the operations of the Parking System.
- k. The equipment shall not have been put to commercial use anywhere previous to the Commencement of Operations.
- l. Create and operate an illegal parking management system to inform the concerned authorities.

#### **X). SITE DEVELOPMENT RELATED SPECIFICATIONS**

- 1. Car Park Management System
  - a. Supporting 64-bit Microsoft Windows® Operating Systems
  - b. Open software architecture (API / Universal Interfaces)
  - c. Management of authorization levels internal user groups (e.g., admin or service personnel)
  - d. Usage of modern software technology for all GUI applications (operation modules) on the car park management server
  - e. Multi-tasking/multi-application capability allowing to open several operation modules at the same time
  - f. Workstations allowing multiple users managing the car park simultaneously.
- 2. Business Intelligence: The Business intelligence to be applied in the smart parking system should consist of the following functionalities:
  - a. Ad-hoc reporting with drill down capability
  - b. Modern multi-dimensional data platform
  - c. Separate reporting data base for high-performance data analysis (data warehouse)
  - d. Interactive user interface flexible formatting capabilities
  - e. Storage of user specific reports
  - f. Import/export existing reports
  - g. Supporting report analysis via Microsoft Excel® (\*.xls file) (i) Export in \*.xls,\*.csv,\*.pdf \*.png files
  - h. Flexible “Top 10” filters criteria
- 3. User Logging Audit
  - a. Continuously logging user application activity
  - b. Information on which user has signed on what occurred during the session (i.e., used which application / performed which function) the associated timestamps to be provided
- 4. Difference Counting Module
  - a. Integrated software module for the management of the occupancy counters in the car park

- b. Detecting the occupancy of each slot of the complete car park, categorised by reserved Spaces (Long-Term Users / Seasonal Users), non-reserved spaces (Short-Term Users / Hourly Users), booked spaces (Short-Term Users / Hourly Users who pre-booked via internet) total spaces.
  - c. Use of threshold values to control signs, car park levels.
  - d. Automatic sign control (free/full) depending on the number of cars in the car park.
5. Alarm Management Module
- a. Integrated software module for the management of alarms or events generated by the field devices or the users of the car park management system
  - b. Alarm prioritization for efficient action clear instructions to staff
  - c. Configuration of costumer specific alarm messages
  - d. Configuration of alarm messages that require a comment by the operator (e.g., manual barrier opening requires a reason to be typed in)
  - e. Alarm logbook (history function)
  - f. Alarm counter for displaying alarms with multiple occurrences
  - g. Alarm forwarding via email
6. User Administration Module
- a. Integrated software module for the management of Long-Term User (Seasonal User) data (e.g., address, invoice details, card numbers).
  - b. Extended Long-Term User (Seasonal User) access profiles (depending on Day/Time parking area or integrated parking area)
  - c. Flexible list generator allowing for definition of views queries/ reports on Seasonal User data details
  - d. Automated invoicing
  - e. Invoicing date cycles definable
7. Tariff Module
- a. Software module for the management of parking fees allowing to modify or create a customised tariff structure
  - b. "Lost ticket at exit" feature (fixed or variable tariff)
  - c. Separate accounting on validation schemes
  - d. Define complex highly differentiated tariffs (e.g., special tariffs for determined use-cases or user patterns, daily, hourly on events)
  - e. Tariff tester for tariff verification prior to tariff activation
8. Power Management Module
- a. Software module for the configuration of device profiles defining "stand by" periods per unit or group of units for scheduled shutdown of the devices.
  - b. Control option for "temporary wake-up" of devices out of "stand by" mode.
9. Site Development Related Specifications Smart Parking
- a. All the project components/facilities shall be as per the design approved by Shillong Smart City Ltd.
  - b. Recommended practices for road signs as per IRC 67:2001 for pedestrian facilities as per IRC 103:1988 shall be followed.

**XI). OPERATIONS:**

- a. The Contractor will develop modify, from time to time, a detailed operating plan (“Operating Plan”) for the Parking System. The Operating Plan will detail all aspects of operations including but not Limited to bring, signage, geometric design (i.e., delineation of free parking, paid parking, no-parking areas), fee collection, enforcement, facility maintenance, customer service procedures. The Contractor also will prepare detailed Parking Management Plans for multi-level sites. The Operating Plan Parking Management Plans, any modifications to them, must be approved by Shillong Smart City Ltd (SSCL). The Contractor will incorporate suggestions from Shillong Smart City Ltd (SSCL). on the Operating Plan Parking Management Plans operate the Parking System in accordance with the approved Operating Plan Parking Management Plans.
- b. A Contractor will be responsible for complete operations and maintenance of all the parking spaces post parking site handover from Shillong Smart City Ltd (SSCL).
- c. Collect applicable Parking Fees using an IT-based system (Cash/Cashless Payment System) from all users who park their vehicles in multilevel parking sites assigned to the Contractor. The Contractor will not collect cash or other forms of direct payment on the street.
- d. Unique identification of each vehicle entering any of the parking lots through bar-coded tickets, RFID/Smart Cards/QR Coded entry NFC enabled, Mobile wallets such as PayTM, Google Pay or PhonePe etc. as applicable.
- e. Support the enforcement authorities by creating an information system via SMS and mobile application to report illegal parking to the concerned authorities.
- f. Enlist trained professionals to operate the Parking System.
- g. Bear all expenses towards operation of the Parking System through the entire period and not claim any additional expenses. The Contractor shall not carry out any other commercial activities other than those mentioned in the RFP on or near Parking System facilities unless explicitly approved by Shillong Smart City Ltd (SSCL).
- h. To provide single space identification with LED indicators for all parking slots showing availability of parking lots.
- i. Using the data generated through the parking solution software for analytics purposes, such as time based (hourly/daily/weekly/monthly/annually) trends, area specific trends, vehicle (car–SUV/sedan/hatchback, scooter, etc.) specific trends, usage vacancy periods, premium parking demand and, etc., for the purpose of better management of parking.

The above-mentioned specification / codes are indicative only; any other code / specification required for development for parking facility will be applicable even though not mentioned above.

#### 5.4. LIST OF APPROVED MAKES / BRANDS

The contractor is required to use the following list of approved makes for the items during the construction works. It is requested to read the following list along with the approved make given under technical specifications.

In case, the item from listed makes is not available during execution, the item can be changed after taking approval from Engineer – In Charge.

S.N	Material	Approved Makes/Brands		
<b>CIVIL/INTERIOR WORKS</b>				
1	Ordinary Portland Cement / Portland Pozzolona Cement	ACC	Ultratech	J. K Cement
		Lafarge	Ambuja Cement	
2	White Cement	Birla Cement	J. K White	Lafarge
3	Ready Mixed Concrete	ACC	L&T	JK Cement
		Unitech	Grasim	
4	Reinforcement Steel (TMT – Fe500/Fe 500D)	SAIL	Tata Steel Ltd	RINL
5	Structural Steel/M.S. Tube	TATA	RINL	SAIL
		TISCO		
6	Plasticizer, Super Plasticizer, Admixtures, Other construction chemicals	CICO	Fosroc	BASF
<b>WATERPROOFING</b>				
7	Integral Waterproofing Crystalline Admixture	Sunanda Chemical	Xypex Chemical	Penetron
8	Waterproofing Self Adhesive (HDPE) Membrane	Sunanda Chemical	STP	FOSROC
		BASF		
9	SBS Membrane	BASF	Sunanda Chemical	FOSROC
		SIKKA		
<b>PAINTS AND COATING</b>				
10	Anti-Corrosive Paint for Structural Steel Intumescent Coating	Akzonobal	BASF	MAPEI
		Sunanda Chemical		
11	Phenolic Epoxy Paint	Akzonobal	-	HILTI
12	Exterior Wall Heat Insulation, UV Resistance Paint	Sunanda Chemical	BASF	FOSROC
13	Texture Paint	FOSROC	Sunanda Chemical	Akzonobal
		Jotun	Asian	
<b>FLOORING AND EPOXY COATING</b>				
14	Anti-Static Flooring	Sunanda Chemical	STP	FOSROC
		MAPEI	BASF	
<b>GROUTS</b>				
15	Shrinkage Compensating Grout Admixture	FOSROC	MAPEI	Sunanda Chemical
		BASF		
16	Cementitious Grout	FOSROC	ARDEXENDURA	Sunanda Chemical
		SIKKA		
17	Epoxy Grout	Sunanda Chemical	FOSROC	STP
		BASF		
18	Rebarring Chemical	Hilti	3M India	

S.N	Material	Approved Makes/Brands		
19	Fire Sealant	Hilti	3M India	Fischer
20	Flush door shutters	Duro	Greenpanel	Merino
		Century	Archidply	
21	Hardware for Fire Check Door	Dorma	Becker Fire Solution	Dorset
22	Expansion Joint – Modular	C.S	Herculus	Z-Tech
		Vexcolt	Fischer	
23	Aluminium Bldg. Expansion Joint	Vexcolt	Z-Tech India	C/S Expansion Joint
24	Polyster Powder Coating Paints	Nerolac	Berger	Akzonobel
25	Wall Putty	Birla Wall Care	JK White	Asian Paints
26	Oil Bound Washable Distemper	Asian Paints	Nerolac	Berger
		Ultratech	Dulux	
27	Acrylic Distemper	Asian Paints	Nerolac	Berger
		Ultratech	Dulux	
28	Premium Acrylic Emulsion paints	Asian Paints	Nerolac	Berger
		Ultratech	Dulux	
29	Cement Primer	BP White (Berger)	Decoprime WT (Asian)	Akzonobel (Dulux)
		Nerolac		
30	Cement Paint	Snowcem Plus	Berger (Durocem Extra)	Nerolac (Nerocem With Titanium)
		Asian	Ultratech	
31	Steel /Wood Primer	Akzonobel (Dulux)	Nerolac	Asian Paints
		Berger	-	First quality of ICI
32	Textured Exterior Paint	Spectrum	Asian (Apex Ultima)	Nerolac Kansai (Excel)
		Berger	-	Unilite heritage
33	Synthetic Enamel Paint	Akzonobel (Dulux)	Asian (Apolite)	-
		Berger	First quality of ICI	Johnson &Nicholsan
34	Epoxy Paint	Pidilite	-	FOSROC
		Sikka	Berger	Cico
35	Welding Electrodes	Advani	Oerlikon	Modi
		L & T	Ici	
36	Stainless Steel Hardware	Dorma	Kich	Ozone
		Godrej	Dorset	
		India Gypsum	Lafarge	
37	Curtain Rod/Draperly Rod	Vista work	Mac Décor	Hunter Douglas
38	Fabric Blinds	Hunter Douglas	Mac	Vista
<b>FLOORINGS</b>				
39	Mosaic / chequered Tiles	Unistone	NITCO	Unitile
40	Ceramic tiles / Glazed Tiles	Kajaria	Somany	NITCO
41	Vitrified Tiles (Antiskid / Matt / Glazed)	Somany	Kajaria	NITCO
42	Terrazzo Tiles	NITCO	Unistone	Hindustan
43	Paver Block & Kerb Stone	NITCO	Unitile	Ultra

S.N	Material	Approved Makes/Brands		
		KK Manholes	Unistone	
44	Dash / Anchoring Fasteners	Hilti	Fisher	Bosch
		-	Anchor	
45	Floor hardener	Ironite	Fosroc	Hardonite
46	Composite Marble / Granite / Engineered Stone	Asian	Johnson	Kalinga
47	Water Based Melamine Polish	Asian	Pidilite	ICI Dulux
		Berger		
48	Fire Retradant Paint	Asian	Berger	Shalimar
		Viper FRS 881	Nullifire	
49	Polysulphide Sealant	Fosroc	Wacker	BASF
		Dow Corning		
50	Adhesive for Wood Work	Dunlop	Fevicol	Vamicol
		Araldite	Pidilite	
51	Rolling Shutter	Rama/	Prakash	
52	Venetian Blinds	Mac Décor	Vista	Hunter Douglas
53	Built In Furniture	Wipro	Blowplast	Godrej
		Featherlite	Geeken	
54	Maintenance Equipment, (Ladders, Façade Tolleys Etc.)	Shri Modi (Gujrat)	M/S. Natraj (Pune)	L & T
55	Building Signage/ Fire Signages	Hindustan Signage	Signsutra	WRS Enterprises
<b>GLAZINGS</b>				
56	Anodised Aluminum Hardware (Heavy Duty)	Hardima	Alualpha	LGF Sysmac
		Everite	Godrej	
57	Aluminum Structural Members – Windows, Glazing and Partitions	Jindal	Indalco	Hindalco
		Nalco	Bhoruka	
58	Aluminum Sheet roofing Top 0.9mm thick AA 3004 aluminium alloy and 2nd layer Bare Galvalume sheet, 0.5 mm TCT	KalZip	Tata BlueScope	
59	Pre-coated Galvanised Steel Sheet	Tata BlueScope	Llyod Insulations India Ltd	/ S.R.Metals
		Interarch		
60	Glazing Structural / Suspended /Skylight	Saint Gobain	Pilkington	Glaverbal
61	Clear / Float / Frosted Glass / Mirror	Saint Gobain	AIS	Pilkington
		MODI Guard	Atul	
62	Fire Rated Glass	Saint Gobain	Schott	
63	Stainless Steel Railing, Accessories etc in Grade SS OR 316	Dorma	D-line	Geze
		Ozone	Q-railing	
64	Fire rated vision Panels	Pilkington	SCHOTT	FERILITE
		Saint Gobain	Glaverbel	
65	Friction Stay Hinges	Dorma	LG Sysmac	Dorset
66	EPDM Gasket	Hanu	Anand	Osaka / Alps
		Anand Reddiplex	Enviro Seals	



S.N	Material	Approved Makes/Brands		
67	Mirror Glass	Asahi India Safety Glass Ltd	Modi Guard	Saint Gobain
68	UPVC Doors & Windows	Fenesta	Veka	Aluplast
		LG Hausys		
69	Nuts / Bolts & Screws	GKW	Atul	Hilti
70	Door / Window Fittings	Godrej	Ozone	Doorset
		Dorma		
71	Door Closer	Godrej	Ozone	Doorset
		Dorma		
72	Fire rated doors & it's hardwares	Navair	Shakti	Promat
		Harmann Shakti	Sukriti	
73	Floor Springs	Godrej	Ozone	Doorset
		Dorma		
74	SS Mortise lock with one dead bolt and pair of SS handles steel grade – SS304	Godrej	Ozone	Doorset
		Dorma		
75	Grab bars and Disabled Hardware	Dorma	Ozone	D-line
76	SS Mortise latch & lock with six levers and pair off SS handles steel grade – SS304	Godrej	Ozone	Doorset
		Dorma		
77	SS Tower bolt	Godrej	Ozone	Doorset
		Dorma		
78	SS Butt hinges with ball bearing grade – SS304	Godrej	Ozone	Doorset
		Dorma		
79	Stainless Steel sliding door blots	Godrej	Ozone	Doorset
		Dorma		
80	Pull handle back-to-back of length 150mm of steel Grade-SS304	Godrej	Ozone	Doorset
		Dorma		
81	Pull handle, single side of length 150mm of steel Grade – SS304	Godrej	Ozone	Doorset
		Dorma		
82	Lever handle in SS 304 finish	Godrej	Ozone	Doorset
		Dorma		
83	PVC Water Stops	BASF	Supreme	Oriplast
84	Rolling shutter	Rama	Prakash	
<b>PLUMBING WORKS</b>				
<b>SANITARY FIXTURES &amp; CP BRASS FITTINGS</b>				
1	Sanitary Fixtures	KOHLER	Hindware	Jaquar
2	CP Brass Fittings & Accessories	KOHLER	Hindware	Jaquar
3	Kitchen Sinks	Neelkanth	Jayna	Hindware
		Nirali		
4	Water Cooler	Blue Star	Usha	Voltas
		Eureka Forbes		
5	Electric Storage Type Geyser	Venus	AO Smith	Racold
6	Hand Drier	Euronics	Jaquar	Utec

S.N	Material	Approved Makes/Brands		
7	RO Purifier Units	Kent	ION Exchange	AO Smith
		3M		
<b>SOIL, WASTE, VENT &amp; RAIN WATER PIPES</b>				
1	Hubless Centrifugally cast (spun) Iron pipes & Fittings SS 304 grade coupling with EPDM rubber gasket	Neco	Kapilansh	Hepco
2	GI Pipes	Jindal Hissar	Prakash Surya	Tata
3	GI Pipe Fittings	Zoloto M	DRP	New
		Unik		
4	GI clamps with EPDM rubber	Intellotech	Indotech	Hilti
		CAMRY		
5	Brass Clean Out Plugs	Neer	Vijay	GMGR
6	Stainless Steel Gratings	Chilly	Camry	Kamal
7	uPVC Pipes & Fittings	Ashirvad	Finolex	Astral
		AKG	Prince	Supreme
8	PVC Fittings	Ashirvad	Finolex	Astral
		AKG	Prince	Supreme
<b>WATER SUPPLY SYSTEM</b>				
1	CPVC Pipes & Fittings	Ashirvad	Finolex	Astral
		AKG	Prince	Supreme
2	GI Pipes	Jindal Hissar	Prakash Surya	Tata
3	GI Pipe Fittings	Zoloto M	DRP	New
		Unik		
4	Water Meter	Kranti	Toshaniwal	Capstan
		Anand		
5	Forged Brass Ball Valves	Giacomini	Zoloto	Sant
		DRP	New	
6	CI Butterfly Valves	Zoloto	Audco	Sant
		DRP		
7	Pipe Insulation	Armaflex	K-Flex	Thermaflex
		Kaiflex		
		DRP		
		Eureka Forbes		
8	Polyethylene Storage Tank	Sintex	Supreme	Sheetal
<b>HOT WATER SYSTEM (HEAT PUMP)</b>				
1	Heat Pumps	AO Smith	Cristopia	Bluebox
		Climaveneta	Klima	
2	Hot Water Recirculation & Return Pumps	Willo	Grundfoss	KSB
		Xyllum		
<b>SEWERAGE &amp; DRAINAGE SYSTEM</b>				
1	HDPE Double Wall Corrugated (DWC)	Finolex	Astral	Ashirvad
		Supreme		
2	SFRC Manhole Cover & Frame	KK Manholes	SK Precast Concrete	Advent concreteovision
3	Foot Rests	KJM	Deesawala	Surya
		Sinecos		
4	Grease Separator	ACO	Kessel	Klaro
<b>WATER SUPPLY, DRAINAGE PUMPS &amp; WATER TREATMENT EQUIPMENTS</b>				

S.N	Material	Approved Makes/Brands		
1	Water Supply Pumps	Willo/	Grundfoss	KSB
		Xyllum		
2	Water Filters	Ion Exchange	Thermax	Pentair
3	Water Softeners	Ion Exchange	Thermax	Pentair
4	Chemical Dosers (Chlorinators')	Asia LMI	Toshcon	Chloromax
5	Electrical Panels	As per Electrical Make List		
6	GI Pipes	Jindal Hissar	Prakash Surya	Tata
7	GI Fittings	Zoloto M	DRP	New
		Unik		
8	CI Butterfly Valves	Zolato	Audco	Sant
		DRP		
9	CI Dual Plate Check Valves	Zolato	Audco	Sant
		DRP		
10	CI Strainers	Zolato	Audco	Sant
		DRP		
11	Vibration Eliminators/ Rubber Bellow	Resistoflex	D'wren	Kanwal
<b>FIRE FIGHTING SYSTEM</b>				
1	Gas Based Fire Suppression System	Safeguard	Ceasfire Industries	Pyrogaurd Engineers
2	Deluge valve/ Solenoid valve/ Spray nozzle/ Installation Control Valve	Victaulic	Smith Copper	Anvil
3	Fire Pumps	Mather&Platt(WILO)	Grundfos	Kirloskar
		KSB		
4	Fire Buckets	Safeguard	Lifeguard	Swastik
		Minimax		
5	Fire Extinguishers	Safeguard	Lifeguard	Swastik
		Minimax		
6	Fire Hydrant Valves/ Fire RRL Hose Pipes / Fire Hose Reels/ Fire Man's Axe/ short branch pipe/ 2/ 3/4 FB inlet/ draw Out connection/Hose Box/ Hose reel drum /Nozzle/ blank Caps & Chains / Coupling	Safeguard	Lifeguard	Swastik
		Minimax		
7	Flow switch	Potter	Rapid flow	Danfoss
		Viking	Belimo	Honeywell
8	Pipe coat material (pipe protection)	Pypcoat	Makphalt	
9	Pipe Hangers/ Clamps/Supports	Chilly	GMGR	CAMRY
		Hilti		
10	Mild Steel Pipes	Jindal Hissar	Prakash Surya	Tata
		SAIL		

S.N	Material	Approved Makes/Brands		
11	Weld Electrodes	Advani	ESAB	L&T
		Victor		
12	Pressure Gauge	Fiebig	H.GURU	HD
		BRC		
13	Push Buttons/ Indicating lamps LED	As per respective electrical make list		
14	Single Phase Preventer	As per respective electrical make list		
15	Solenoid valve/ Spray nozzle	HD	Tyco	Danfoss
		Honeywell		
16	Sprinkler Heads (Sidewall/ Upright/ Pendant)	Grinnel- Tyco	Viking	HD
17	Sprinkler Flexible Drops	Victaulic	Smith Copper	Anvil
18	MS Forged Fittings	New	DRP	VS
		SS		
19	Pop up Connecting Assembly	Rain Bird	Dura	Lasco
20	Popup Spray Head	Rain Bird	Toro, USA	Nelson,
21	Powder Coating Material Pure Polyester	Jotun	Berger	Goodlass Nerolac
22	RQRC Hydrant	Harvel	Alprene	Rain Bird, USA
23	RQRC Key	Harvel	Aqua	Drip& Drip
24	CI Butterfly Valves/Sluice Valves	Zolato	Audco	Sant
		DRP		
25	CI Dual Plate Check Valves	Zolato	Audco	Sant
		DRP		
26	CI Strainers	Zolato	Audco	Sant
		DRP		
27	Vibration Eleminators/ Rubber Bellow	Resistoflex	D'wren	Kanwal
<b>ELECTRICAL WORKS</b>				
1	Electric Wires & Cables	As per Electrical Make List of MPWD Specifications		
2	AIR CIRCUIT BREAKER (MODEL SHALL BE AS PER TENDER SPECIFICATION)	SCHNEIDER (MVS)	L&T (U Power)	ABB (E-Max)
		SIEMENS (3WL)		
3	MCCBS BREAKER (MODEL SHALL BE AS PER TENDER SPECIFICATION)	SCHNEIDER (CVS)	L&T (D-Sine)	ABB (T-Max)
		SIEMENS (3VA)		
4	SFU / FSU / HRC/ HBC FUSES & BASES	L&T	SIEMENS	SCHNEIDER
		ABB		
5	MCB/ ELCB/ RCCB/ RCBOS/ DISTRIBUTION BOARDS (DOUBLE DOOR IP43 DBs)	LEGRAND EKINOXE3	HAGER NOVELLO	SIEMENS (BETA GUARD)
		SCHNEIDER ACTI-9	ABB	
6	AUTOMATIC TRANSFER SWITCH/ CHANGE OVER SWITCH (OFF LOAD/ ON LOAD)	HPL	SOCOMEK	ASCO
		HAVELLS	ABB	
7		L&T	SCHNEIDER	SIEMENS

S.N	Material	Approved Makes/Brands		
	METAL CLAD SHEET STEEL ENCLOUSER SOCKET/ PLUG BOX	ABB	LEGRAND	
8	LOAD BREAK SWITCHES	L&T	SIEMENS	SCHNEIDER
9	FR/ FRLS/ XLPE LT CABLES & WIRES – ROHS COMPLIANCE (ARMOURED OR OTHERWISE)	POLYCAB HAVELLS	FINOLEX	BONTON
10	MODULAR PLATE SWITCHES AND SOCKETS	LEGRAND (Arteor)	SCHNEIDER (OPAL)	MK (Blenz)
		WIPRO (North west)		
11	TRIVECTOR METER/ AMP METER/ VOLT METER / ENERGY METER/ MFM	NEPTUNE TRINITY	SECURE SOCOMEK	CONZERV
12	TELECOMMUNICATION / TV CABLE	FINOLEX HAVELLS	POLYCAB	BONTON
13	MAIN LT PANEL/ APFC PANELS (TTA IS:8623-1)	TRICOLITE	L&T	CONQUERENT SCHNEIDER
		SIEMENS	ABB	
14	BUSBAR	GINDAL	HINDALCO	CENTURY
15	PVC CONDUIT/ FLEXIBLE CONDUIT & ACCESSORIES (ISI MARKED)	BEC	AKG	POLYCAB
16	STEEL CONDUIT/ FLEXIBLE & ACCESSORIES (ERW) (ISI MARKED)	RM CON	BEC	NIC
		MKAY		
17	LT PANEL/ PCC/ MCC/ MCBS/ DG SYNCHRONIZING PANELS/ PANELS/ CONTROL PANELS/ FEEDER PILLARS/ SERVICE PILLAR / H.T. PANEL	TRICOLITE SPC ELECTROTECH	CONQUERENT	ADLEC
		1) PANEL MANUFACTURER MAKE APPROVAL SHALL BE TAKEN BY ARCHITECT / CONSULTANT/UNIT INCHARGE BEFORE ORDER THE PANEL.		
		2) FABRICATION FACILITY UP TO IP 54/55.		
		3) 9 TANK PRE TREATMENT FACILITIES FOR SHEET.		
		4) EQUIPPED WITH LATEST CNC BENDING, POWDER COATING, BUS BAR BENDING & PUNCHING MACHINE, AND COMPRESSOR ETC.		
18	SANDWITCH BUSDUCT (F CLASS)	SCHNEIDER	L & T	FEDERAL & GERSAN
		EAE Turkey	SUPERBAR	

S.N	Material	Approved Makes/Brands		
19	FR/ FRLS/ XLPE HT CABLES – ROHS COMPLIANCE (ARMOURED OR OTHERWISE)	POLYCAB	FINOLEX	HAVELLS
20	BAKELITE SHEET	HYLAM	FORMICA	GREENLAM
21	VOLTAGE TRANSFORMERS	SIEMENS	L&T	KAPPA
		PEPL	ABB	
22	CURRENT TRANSFORMER	SIEMENS	L&T	KAPPA
		PEPL	ABB	
23	CEILING FAN/ EXHAUST FAN (BLDC)	CROMPTON	BAJAJ	USHA
		HAVELS	ORIENT	
24	TAG BLOCK	KRONE	ERICSON	TVAR&M
25	TRANSFORMERS	VOLTAMP	TMC TRANSFORMER	CROMPTON
		KIRLOSKAR	ABB	SCHNEIDER
26	AUTOMATION POWER FACTOR CONTROL RELAY	L&T	SIEMENS	SCHNEIDER
		ABB		
27	CAPACITORS & REACTORS	L&T	SIEMENS	SCHNEIDER
		ABB		
28	CABLE GLANDS (DOUBLE COMPRESSION WITH EARTHING LINKS)	DOWELLS	COMET	GRIPWELL
29	BI-METALLIC CABLES LUGS/ PVC GLANDS	DOWELLS	ACTION	JAINSONS
		KABEL		
30	CABLE JOINTING KITS	RAYCHEM	JAINSONS	3M
		DENSONS		
31	CABLE TRAYS (FACTORY FABRICATED) / RACEWAYS (G.I.)	INDIANA	CTM ENGINEERS	MEM
		KAMBOJ ELECTRO CONTROL		
32	BATTERY (SEALED MAINTENANCE FREE)	AMCO	EXIDE	AMARA RAJA
33	BATTERY CHARGER	AMARA RAJA	CHHABI ELECTRIC	CROMPTON GREAVES
34	DG SET	CATERPILLAR	CUMMINS	MTU
		mitsubishi	VOLVO PENTA	PERKINS
35	DG SET ALTERNATOR	STAMFORD	LERROY SOMMER	KIRLOSKAR
36	CONTROL GEAR (CONTRACTORS ETC.)	L&T	SIEMENS	SCHNEIDER
		ABB		
37	PROTECTION RELAYS MICROPROCESSOR BASED	AREVA	L&T	ABB
		SIEMENS	SCHNEIDER	
38	EARTH LEAKAGE RELAY	L&T	PIC	MINILEC
		EATON		
39	SINGLE PHASING DEVICE	L&T	SIEMENS	MINILEC
40	PUSH BUTTONS	L&T	SIEMENS	SCHNEIDER
		ABB		

S.N	Material	Approved Makes/Brands		
41	TIME RELAY DEVICE	L&T	SIEMENS	SCHNEIDER
		ABB		
42	SELECTOR SWITCHES & ROTARY SWITCHES	L&T	SIEMENS	SCHNEIDER
		ABB		
43	INDICATING LIGHTS	L&T	SIEMENS	SCHNEIDER
		ABB		
44	TERMINALS	ELMEX	ESSEN	DEINKI
		WAGO		
45	TELEPHONE OUTLETS	AS PER SWITCH / SOCKET MAKE.		
46	MOTORS	ABB	CROMPTON	SIEMENS
		KIRLOSKAR	BHARAT BIJLI	
47	IPBAX & TELEPHONE SYSTEM	SIEMENS	ERICSSON	ALCATEL-LUCENT
		MITEL		
48	MULTI-METER & MEGGARS	ESCROP	MOTWANI OR EQUIVALENT	
49	PROGRAMMABLE LOGIC CONTROLLER	SIEMENS	WOODWARD	ALLEN BRADLEY
50	EARTHING / LIGHTNING PROTECTION UNIT	JMV	ERICO	LPI
51	UPS	APC SCHNEIDER	EMERSON	TATA LIBERT
		3EM	EATON POWER	AUTOMETERS ALLIANCE LTD.
52	FIRE ALARM SYSTEM (All COMPONENTS SHALL BE UL LISTED & CONFIRM TO NFPA STANDARD)	NOTIFIER	IFC	NOHMI
		BOSCH	ADVANCED	
53	PA SYSTEM	NOTIFIER	IFC	NOHMI
		BOSCH		
54	PUMPS	WILLO	KIRLOSKAR	KSB
		XYLLUM		
55	LT SERVO AUTOMATIC VOLTAGE STABILIZER	AE	LOGICSTAT	LD POWER TRANSFORMERS (PVT.)LTD.
56	D.G. SET ACCOUSTIC ENCLOSURE	AS PER D.G. SUPPLIER AND APPROVED BY OEM AND CONSULTANT / ARCHITECT.		
57	M.S. PIPE	TATA	JINDAL HISSAR	SAIL
		PRAKSH SURYA		
58	BUTTERFLY / BALANCING VALVE	ZOLOTO	AUDCO	SANT
		DRP		
59	POT STRAINER / Y STRAINER	ZOLOTO	EMERALD	SANT
		DRP		
60	CCTV CAMERA / DVR / NVR	HONEYWELL	SONY	BOSCH
61	ACCESS CONTROL	BOSCH	TYCO	LENEL
62	CAT 6A	CISCO	D-LINK	NETGEAR
63	MINERAL INSULATED COPPER CABLE	TYCO	ROCKBESTOS	MICC
		CAVICEL		

S.N	Material	Approved Makes/Brands		
64	FIRE SUPPRESSION SYSTEM	MINIMAX	UTC	FIRETRACE
65	VIBRATOR ELIMINATOR	KANWAL	RESISTROFLEX	D'WREN
66	INSULATION	UP TWIGA	KIMCO	LLYOD
67	WELD ELECTRODES	ADVANI	ESAB	L&T
		VICTOR		
68	BOOM BARRIER	FAAC	GODREJ VIGIGUARD	SOMFY
		GUNNEBO		
69	DWC HDPE PIPE	FINOLEX	ASTRAL	ASHIRVAD
		SUPREME		
70	INVERTER	MICROTEK	LUMINOUS	SU-KAM
71	SEMI ROTARY TYPE HAND FUEL FILLING PUMP	ROTODEL	KITTY	GROZ
72	SOLAR PV MODULE	ADANI	VIKRAM	TATA
73	SOLAR INVERTER	DELTA	NEOWATT	SCHNEIDER
74	DC CABLE	POLYCAB	HAVELLS	FINOLEX
75	LIGHT FIXTURES (LED)	LEGERO	WIPRO	HAVELLS
		INSTA POWER		
76	EXTERNAL LIGHTING POLE	VALMONT	NERI	GLOWMAG
77	LANDSCAPE / FACADE AREA LIGHT	LVELA	ES SYSTEM	LITOLUX
78	STREET LIGHT	CARIBONI	EWO	HEPER
		INSTA POWER		
79	HENSEL BOX	HEPER	ES SYSTEM	LITOLUX
80	MC4 CONNECTOR	SYNERGY	SETLLAR	SCHNEIDER
81	ALL POWER AMPLIFIERS	BOSE	POWERSOFT	ELECTRO VOICE
		BOSCH		
82	ALL LOUDSPEAKERS, LINE ARRAYS AND SUBWOOFERS IN CLASS ROOMS AND AUDITORIUMS	BOSE	MARTIN AUDIO	D&B AUDIOTECHNIC
		BOSCH	ELECTRO VOICE	
83	CEILING SPEAKER (AUDIO/ VIDEO)	BOSE	MARTIN AUDIO	D&B AUDIOTECHNIC
		BOSCH	ELECTRO VOICE	
84	STAGE LIGHTING	CANARA LIGHTING	MARTIN LIGHTS	ROBE
85	NETWORK SWITCH	CISCO	D-LINK	NETGEAR
86	ALL SWITCHING & CONTORLS, RECEIVERS, TRANSMITTERS, SCALER EXTENDER	BOSCH	CRESTRON	EXTRON
87	PROJECTOR	BARCO	CHRISTIE	DIGITAL PROJECTION
88	ELEVATORS	TOSHIBA	OTIS	MITSUBISHI
		SCHINDLER	KONE	



S.N	Material	Approved Makes/Brands		
89	MOTORIIZED SCREEN IN CLASS ROOMS AND AUDITORIUMS	DALITE	DRAPER	SUVIRA
90	FLAT PANAL DISPLAY	CHRISTIE	NEC	PLANAR
91	DOCUMENT CAMERA	ELMO	LUMENS	WOLF VISION
92	HIGH-DEFINITION VIDEO CONFERENCING	CISCO	POLYCOM	SONY
93	CAMERA SECONDARY	LUMENS	POLYCOM	SONY
94	MULTI FORMAT PRESENTATION SWITCHER WITH CONTROL PROCESSOR IN CLASS ROOMS AND AUDITORIUMS	AMX	CRESTRON	EXTRON
		BOSCH		
95	WIRELESS TOUCH PANEL WITH ACCESSORIES IN CLASS ROOMS AND AUDITORIUMS	AMX	CRESTRON	EXTRON
		BOSCH		
96	CONFERENCE SYSTEM IN CLASS ROOMS AND AUDITORIUMS	BEYERDYANMIC	BRAHLER	MARCONI TECHNOLOGIES
		BOSCH	SCHINDLER	
97	DELEGATE AND CHAIRMAN MICROPHONES	BEYERDYANMIC	BRAHLER	MARCONI TECHNOLOGIES
		BOSCH		
98	HANDHELD AND LAPEL MICROPHONES	BEYERDYANMIC	BRAHLER	MARCONI TECHNOLOGIES
		BOSCH		
99	DIGITAL SIGNAL PROCESSOR	CRESTON	BOSE	BIAMP
		BOSCH	BRAHLER	
100	VGA WITH AUDIO PATCH CABLE	AMX	CRESTRON	EXTRON
		KREMER		
101	HDMI PATCH CABLES	AMX	CRESTRON	EXTRON
		KREMER		
102	DIGITAL VIDEO CABLE NON-PLENUM	AMX	CRESTRON	EXTRON
		KREMER		
103	CONTROL CABLE	BELDEN	CRESTRON	EXTRON
104	MICROPHONE CABLE	AMX	CRESTRON	EXTRON
		KRYSTAL	BELDEN	
105	AUDIO AND STEREO CONTROL CABLE	BELDEN	CRESTRON	EXTRON
		KRYSTAL		
106	SHIELED CHIELDED CAT 6A / FIBRE CABLE	CISCO	D-LINK	NETGEAR
107	BULK CONNECTORS	NEUTRIK	SWITCHCRAFT	AMPHENOL
108	EQUIPMENT RACH	CHIEF	MIDDLE ATLANTICA	VALRACK
109	LIGHTING CONTROLLER/ MANAGEMENT SYSTEM	LUTRON	ZUMTOBEL	HONEYWELL

S.N	Material	Approved Makes/Brands		
110	SMART PODIUM	UNI	AHA	TECOMM
		LUMIN	PEOPLE LINK	
111	INTERACTIVE WHITE BOARD	PROMETHEAN	HITE VISION	SMART
112	COUNTDOWN CLOCK	BIGTIME CLOCKS	ULTRAK	BANGGOOD
113	COMPUTER	HP	DELL	IBM
114	MONITOR	SAMSUNG	PANASONIC	LG
		DELTA	CRISTLE	
115	12 BAY NAS	NETGEAR/CISCO	DELL	HP
116	10 G CORE SWITCH	NETGEAR/CISCO	DELL	HP
117	L3 POE PLUS SWITCH	NETGEAR/CISCO	DELL	HP
118	DUAL BAND 11 AC ACCESS POINT	NETGEAR/CISCO	DELL	HP
119	10G SINGLE MODE SFP+ MODULE	NETGEAR/CISCO	DELL	HP
120	SECURE NETWORK SERVER	CISCO	DELL	HP

\* For any missing item, the Contractor shall take prior approval from Engineer in Charge.

NOTE: All makes shall further confirm to standard specifications of each item as mentioned in technical specifications of tender documents.

## 6. SERVICE LEVELS

### 6.1. Service Level Agreement:

- a) The purpose of this Service Level Agreement (hereinafter called SLA) is to clearly define the levels of service which shall be provided by the Bidder to End Customer SSCL for the duration of the contract. The SLA is intended to establish a clear set of measurable parameters against which the performance of the Bidder can be measured.
- b) The Bidder shall maintain a monthly contact to monitor the performance of the services being provided by the Bidder.
- c) The SLAs shall be monitored periodically by SSCL or any person/ body appointed by SSCL and non-adherence of these SLAs is bound to attract penalties as described in the following Clauses.
- d) These SLAs shall be used to evaluate the performance of the services on weekly basis but penalties would be levied for cumulative performance for the quarter basis.
- e) No offline billing of parking charges will be allowed. The Bidder has to make standby arrangement of the internet/network connectivity in case the online system is down at any time. The Bidder has to keep spare hand-held devices, computers, network equipment and other equipment so that the system will be operational all times.
- f) It is expected that the Bidder should comply with all the Policy/ Procedural/ Regulatory Guidelines enforced by Government of India, Government of Meghalaya and other statutory related bodies, as amended from time to time. The Bidder should also safeguard the Application Security and Application Integrity.

### 6.2. Penalty:

S. No.	Condition of Delay	Penalty During Comprehensive Operations & Maintenance Period
1	If any complaint of over-charging or collecting parking charges defined in RFP document is received from the complainant or any violation is noticed. The same shall be levied after investigation carried out by the SSCL and confirmation that complainant was overcharged than the actual fee.	A penalty of minimum amount of Rs.2,000/-for each such incident shall be imposed on the Contractor for repeated violation, action shall be taken against the Contractor as per clause of this RFP to terminate the Agreement.
2	For non-operation and non-submission of database as per the requirement mentioned in RFP on any of the day.	Rs. 1,000/- (Rs. one Thousand) per day. If database found to be non-operational for more than 3 (three) continuous days the fine levied will be Rs. 5000 per day after first 3 days.
3	The uptime commitment of all the parking sensors, LED display, CCTV or any other equipment/ communication devices used for real-time availability of parking spaces is less than 97%	A penalty of Rs. 1000/- Per parking lot per day of downtime beyond the specified percentages in the adjoining column to be levied from the Contractor.
4	If uptime of online parking space booking system through mobile & website applications is less than 97%	A penalty of Rs. 500/- per day of downtime beyond the specified percentages in the adjoining column to be levied from the Contractor.
5	If the online information of parked vehicles/ availability of parking is not matching with the actual position (99% accuracy)	A penalty of Rs.1000/- (Rupees One Thousand) per parking lot per day will be imposed.
6	Delay in retrieval	Rs. 100/- per instance per vehicle for four-wheeler. The Retrieval time should be less than

S. No.	Condition of Delay	Penalty During Comprehensive Operations & Maintenance Period
		maximum allowed retrieval time as per system requirements.

1. Nothing in this clause shall operate to restrict any other rights and remedies available to Employer/ Authority at law or under this Agreement.
2. The Contractor shall not be considered in breach of its obligations under this Clause on account of any of the following, for the duration thereof:
  - a. Compliance with a request from SSCL;
  - b. the directions of any Government Agency;
3. In case the contractor after signing the agreement, fails to mobilise or perform the scope of work agreed through SLAs or this agreement, the contractor shall not only be terminated but blacklisted.
4. Penalty would be applicable for non-compliance of relevant security certifications. There would be Zero Tolerance policy against such breaches. The penalties across various breaches could be categorized as follows (this includes but not limited to the following):
  - a. Information Security Breach: Any data leakage, information sharing, reports sharing without the consent of SSCL.
  - b. Network & System Security Breach: Any instance of hacking, information / data compromise, unauthorized access to public Wi-Fi.
  - c. Guidelines Breach: Non-compliance to guidelines shared by various government agencies such as complying with Standards for website/mobile app development, etc.

For any of the breach for above-mentioned category, a penalty would be levied on the Bidder for every instance of occurrence if not responded as per the timelines mentioned in the table below:

Type	Measurement (Unit)	Response Time (In Unit)	Penalty on Response w.r.t. Delay/Unit
Information Security Breach	<b>Day</b>	<b>01</b>	<b>1,000</b>
Network & System Security Breach	<b>Day</b>	<b>01</b>	<b>1,000</b>
Guidelines Breach	<b>Days</b>	<b>07</b>	<b>3,000</b>

The response time refers to immediate remedial action taken preventive measures updated by the Contractor on occurrence of the event. In case the breaches are not responded to in the time frame as specified, penalties would be levied as per the table above failing to address the breach in desired timeline, recurring penalties would be levied w.r.t. to delay in units as mentioned. For example, in case of an Information Security Breach, the Bidder has to respond within one (1) day of the event occurrence.

Guidelines Breach includes non-compliance to certain guidelines as set by various agencies like Ministry of Communications Information Technology, Department of Science Technology, or other statutory Authorities, etc. In such cases, resolution of the issue is mandatory. The Bidder would be required to respond with the action plan / change request, as applicable, in order to resolve the guidelines breach within the specified response time.

*Penalties shall not be levied on the Bidder in the following cases;*

- a) In case of a force majeure event affecting the SLA, which is beyond the control of the Bidder. Force Majeure events shall be considered in line with the Force Majeure clause mentioned in this RFP document.
- b) Theft cases by default/vandalism would not be considered as “beyond the control of Bidder”. Hence, the Bidder should be taking adequate anti-theft measures, and Insurance as required to maintain the required SLA.

### 6.3. Review of SLA Parameters:

The SLA design is based on the scope of services to be delivered by Bidder. Due to evolving nature of the proposed project, a review of SLAs will be conducted at the end of three months from the date of Commencement of the operations. The purpose of this review is to reassess the SLAs based on the first three months’ operations. SSCL, after thorough analysis of the monthly statistics monitored as per the above-mentioned SLA parameters, may consider revision of the SLA parameters, and update the terms. If the revision occurs, then the revised SLAs would be final binding for the rest of the term of the operation & maintenance Agreement.

## 7. User charge Fees during Operation and Maintenance

### 7.1. Parking Fee

Parking Fee	Fee per Hour	Night Parking (10 pm - 8 am)	Monthly* Parking
For MLCP	Rs. 20 per Hour (Maximum – Rs. 150 per day)	100	2000

**\*Monthly Passes shall be valid for 10 hours in a day/night.**

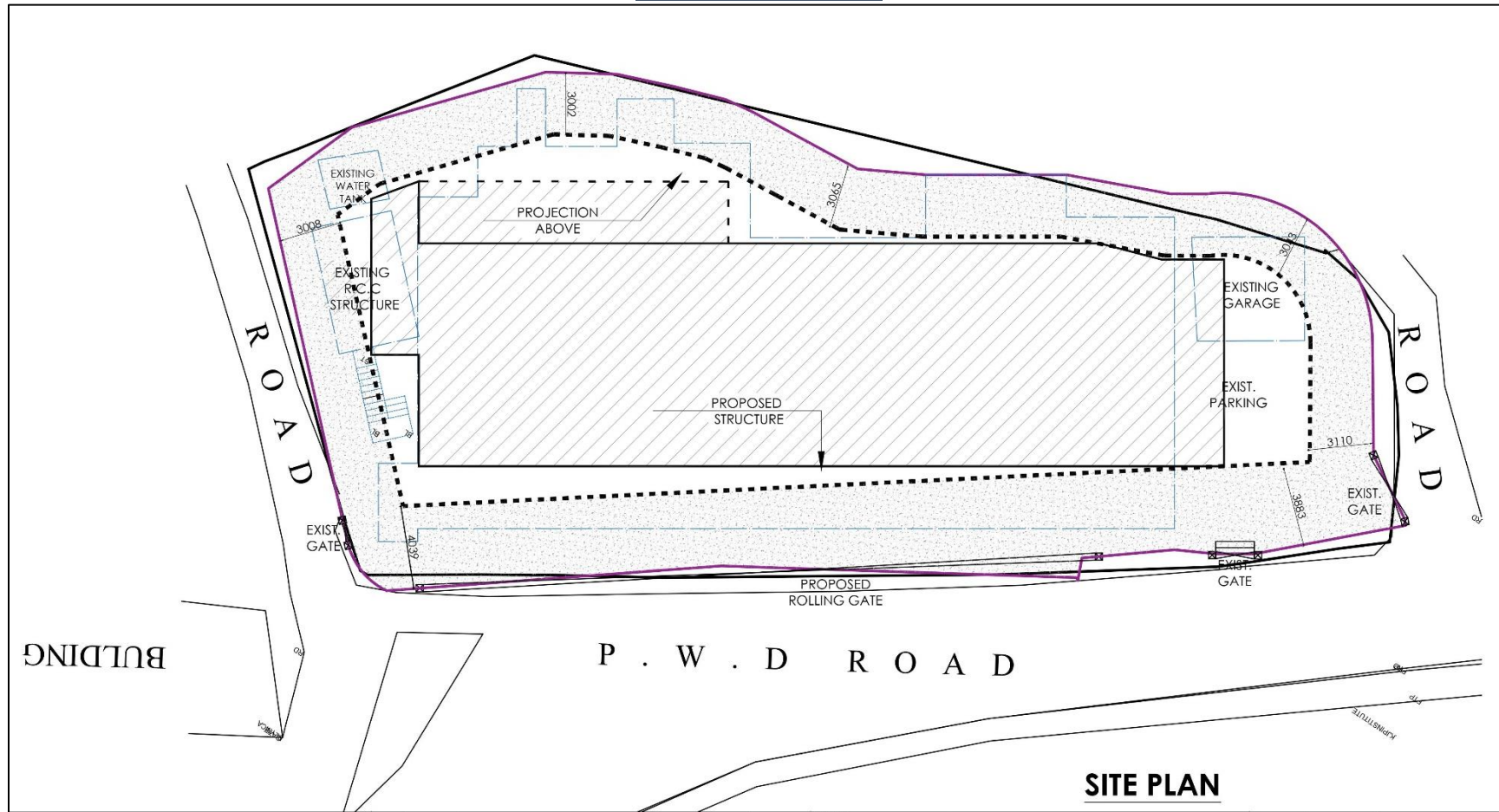
The Parking fee is allowed to be escalated by 5% per annum (or in line with government parking rates), after approval of the same from Employer in writing.

### 7.2. Advertisement Fee

The Contractor shall be allowed for outdoor advertisement at building façade (up to maximum 50% of the area). The rights of advertisement at the building façade shall be with the Contractor. The Contractor can levy the advertisement charges as per the market rates.

**SECTION 6**  
**PRILIMINARY DRAWINGS (Tender Purpose)**

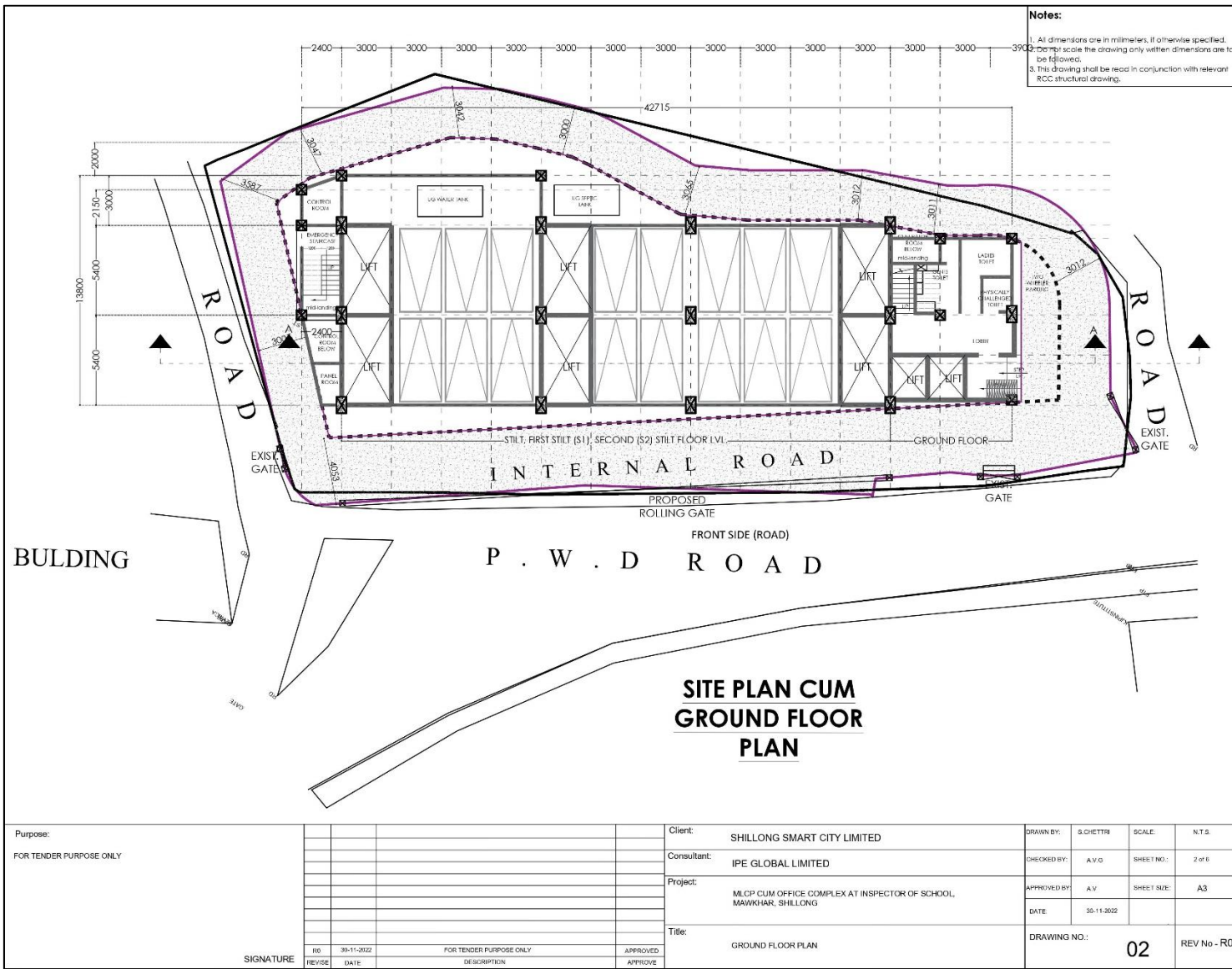
**Plot – Site Plan**



**SITE PLAN**

Purpose: FOR TENDER PURPOSE ONLY				Client:	SHILLONG SMART CITY LIMITED	DRAWN BY:	S.CHETTRI	SCALE:	N.T.S.
				Consultant:	IPE GLOBAL LIMITED	CHECKED BY:	A.V.G	SHEET NO.:	1 of 6
				Project:	MLCP CUM OFFICE COMPLEX AT INSPECTOR OF SCHOOL, MAWKHAR, SHILLONG	APPROVED BY:	A.V	SHEET SIZE:	A3
						DATE:	30-11-2022		
				Title:	SITE PLAN	DRAWING NO.:	01	REV No. -	R0
SIGNATURE	RD	30-11-2022	FOR TENDER PURPOSE ONLY	APPROVED					
	REVISE	DATE	DESCRIPTION	APPROVE					

### PLAN – GROUND FLOOR INCLUDING STILT, FIRST STILT AND SECOND STILT

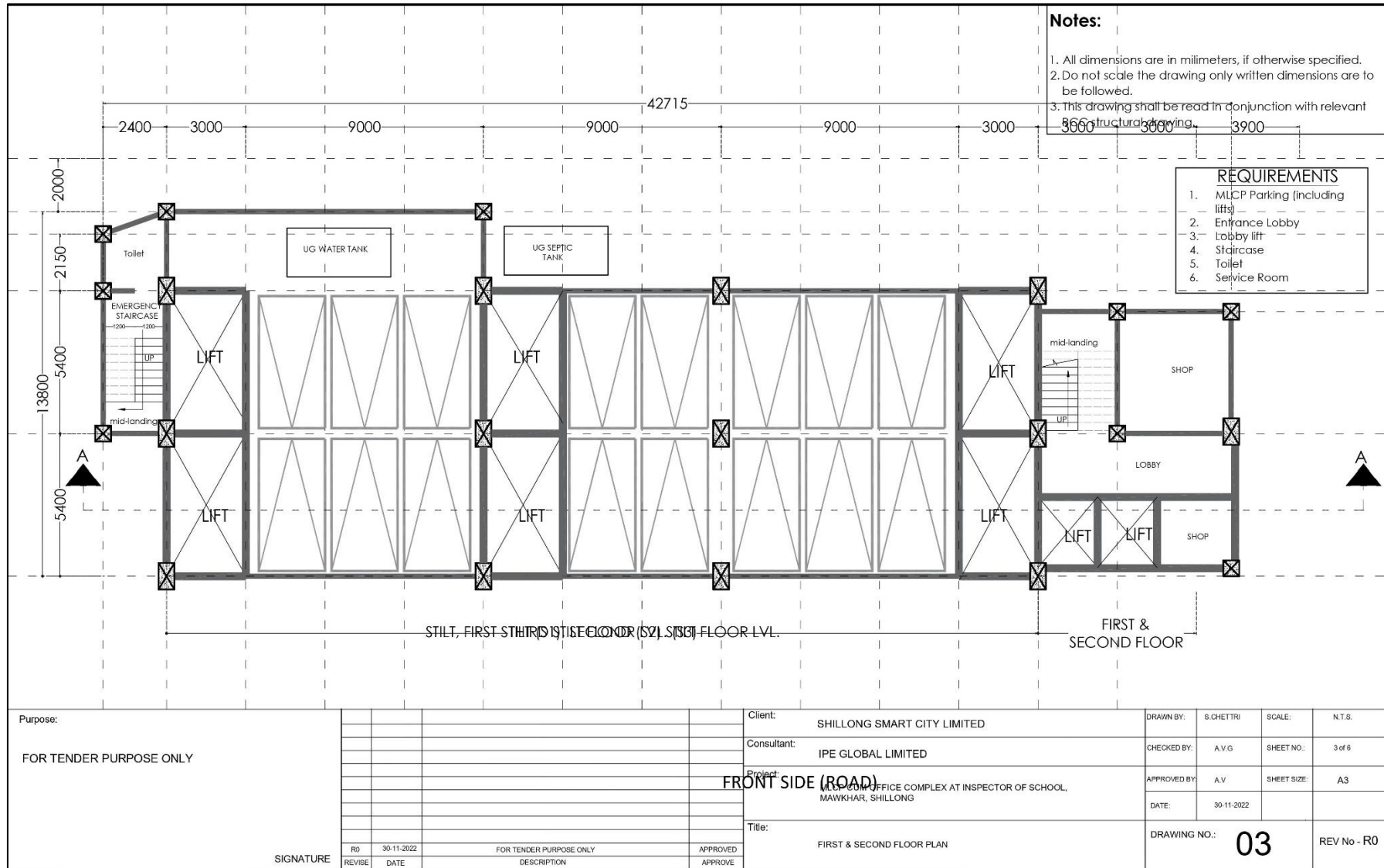


#### SITE PLAN CUM GROUND FLOOR PLAN

Purpose: FOR TENDER PURPOSE ONLY	Client:		SHILLONG SMART CITY LIMITED		Drawn by:	S.CHETTRI	Scale:	N.T.S
	Consultant:		IPE GLOBAL LIMITED		Checked by:	A.V.G	Sheet No.:	2 of 6
	Project:		MLCP CUM OFFICE COMPLEX AT INSPECTOR OF SCHOOL, MAWKHAR, SHILLONG		Approved by:	A.V	Sheet Size:	A3
	Title:		GROUND FLOOR PLAN		Date:	30-11-2022	Drawing No.:	02
	SIGNATURE		NO	30-11-2022	FOR TENDER PURPOSE ONLY	APPROVED	APPROVE	REV No - R0



### PLAN – 3<sup>RD</sup> STILT FLOOR



Purpose:  
FOR TENDER PURPOSE ONLY

SIGNATURE

NO	DATE	DESCRIPTION	APPROVED
R0	30-11-2022	FOR TENDER PURPOSE ONLY	APPROVED
REVISE	DATE	DESCRIPTION	APPROVE

Client: SHILLONG SMART CITY LIMITED

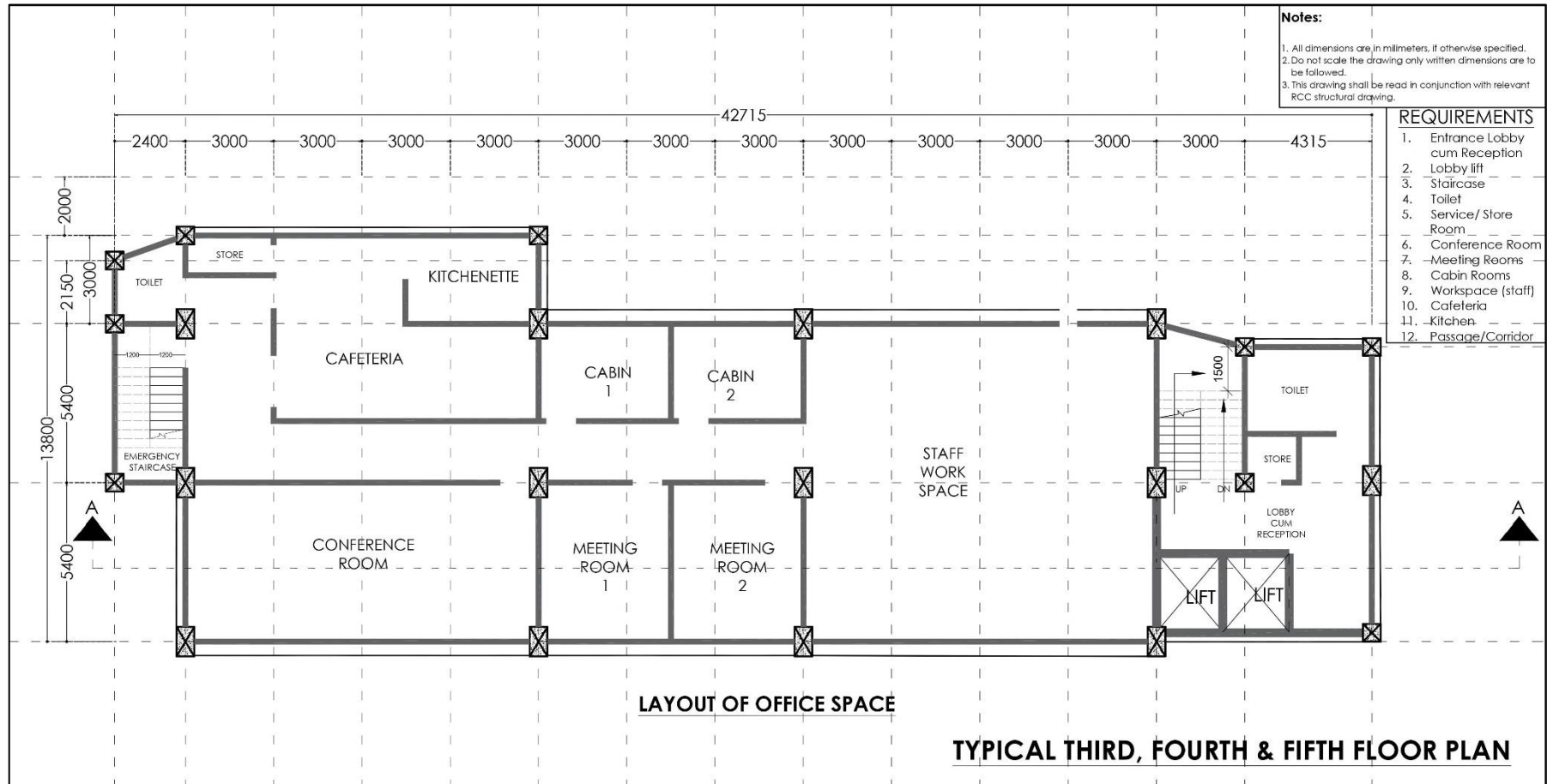
Consultant: IPE GLOBAL LIMITED

Project: OFFICE COMPLEX AT INSPECTOR OF SCHOOL, MAWKHAR, SHILLONG

Title: FIRST & SECOND FLOOR PLAN

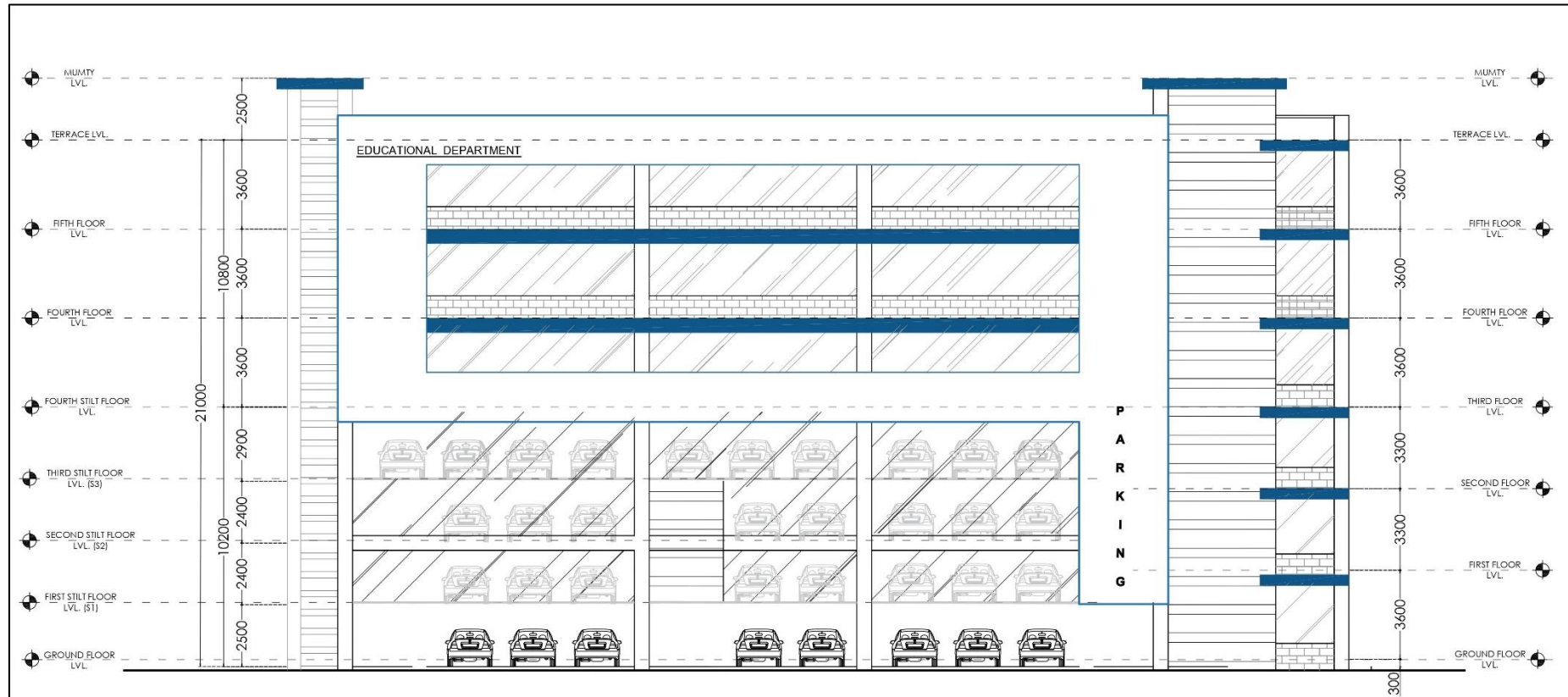
DRAWN BY:	S.CHETTRI	SCALE:	N.T.S.
CHECKED BY:	A.V.G	SHEET NO.:	3 of 6
APPROVED BY:	A.V	SHEET SIZE:	A3
DATE:	30-11-2022		
DRAWING NO.:	<b>03</b>	REV No -	R0

### TYPICAL PLAN - 3RD 4TH AND 5TH FLOOR



Purpose:  FOR TENDER PURPOSE ONLY				Client: SHILLONG SMART CITY LIMITED			DRAWN BY: S.CHETTRI	SCALE: N.T.S.
				Consultant: IPE GLOBAL LIMITED			CHECKED BY: A.V.G	SHEET NO.: 4 of 6
				Project: MLCP CUM OFFICE COMPLEX AT INSPECTOR OF SCHOOL, MAWKHAR, SHILLONG			APPROVED BY: A.V	SHEET SIZE: A3
				Title: THIRD, FOURTH & FIFTH FLOOR PLAN			DATE: 30-11-2022	
	SIGNATURE			R0	30-11-2022	FOR TENDER PURPOSE ONLY	APPROVED	DRAWING NO.: <b>04</b>
	REVISE	DATE			DESCRIPTION	APPROVE		

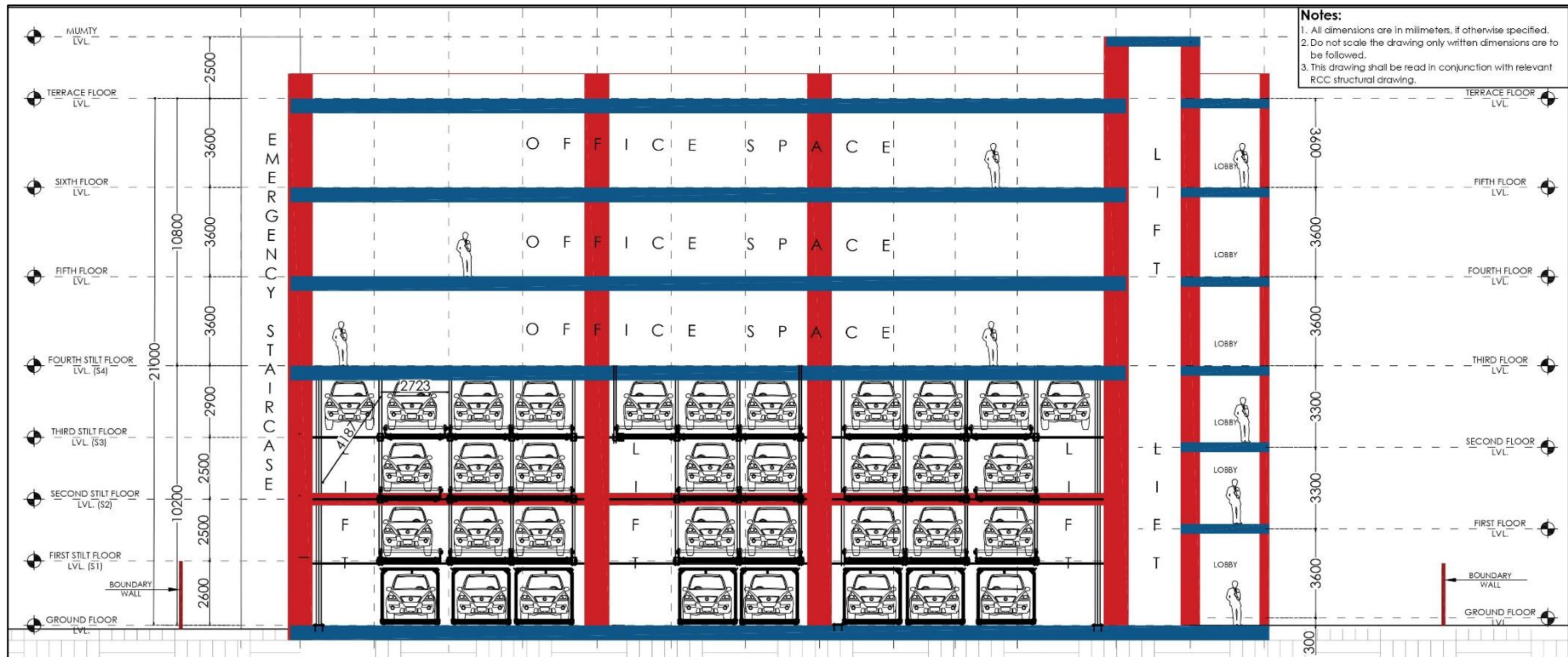
### ELEVATION VIEW



### ELEVATION

Purpose:  FOR TENDER PURPOSE ONLY	SIGNATURE		RD	30-11-2022	FOR TENDER PURPOSE ONLY	APPROVED	Client:	SHILLONG SMART CITY LIMITED	DRAWN BY:	S.CHETTRI	SCALE:	N.T.S.
	REVISION	DATE	DESCRIPTION	APPROVE	Consultant:	IPE GLOBAL LIMITED	CHECKED BY:	A.V.G	SHEET NO.:	5 of 6		
	Project:						MLCP CUM OFFICE COMPLEX AT INSPECTOR OF SCHOOL, MAWKHAR, SHILLONG	APPROVED BY:	A.V	SHEET SIZE:	A3	
	Title:						ELEVATION	DATE:	30-11-2022	DRAWING NO.:		
								DRAWING NO.:		<b>05</b>	REV No - R0	

### SECTION VIEW



### SECTION AT AA

Purpose: FOR TENDER PURPOSE ONLY	Client: SHILLONG SMART CITY LIMITED		Drawn By:	S. CHETTRI	Scale:	N.T.S.
	Consultant: IPE GLOBAL LIMITED		Checked By:	A.V.G	Sheet No.:	6 of 6
SIGNATURE	Project: MLCP CUM OFFICE COMPLEX AT INSPECTOR OF SCHOOL, MAWKHAR, SHILLONG		Approved By:	A.V	Sheet Size:	A3
	Title: SECTION		Date:	30-11-2022	Drawing No.:	06
REVISE	DATE	DESCRIPTION	APPROVED	APPROVE	REV No - R0	



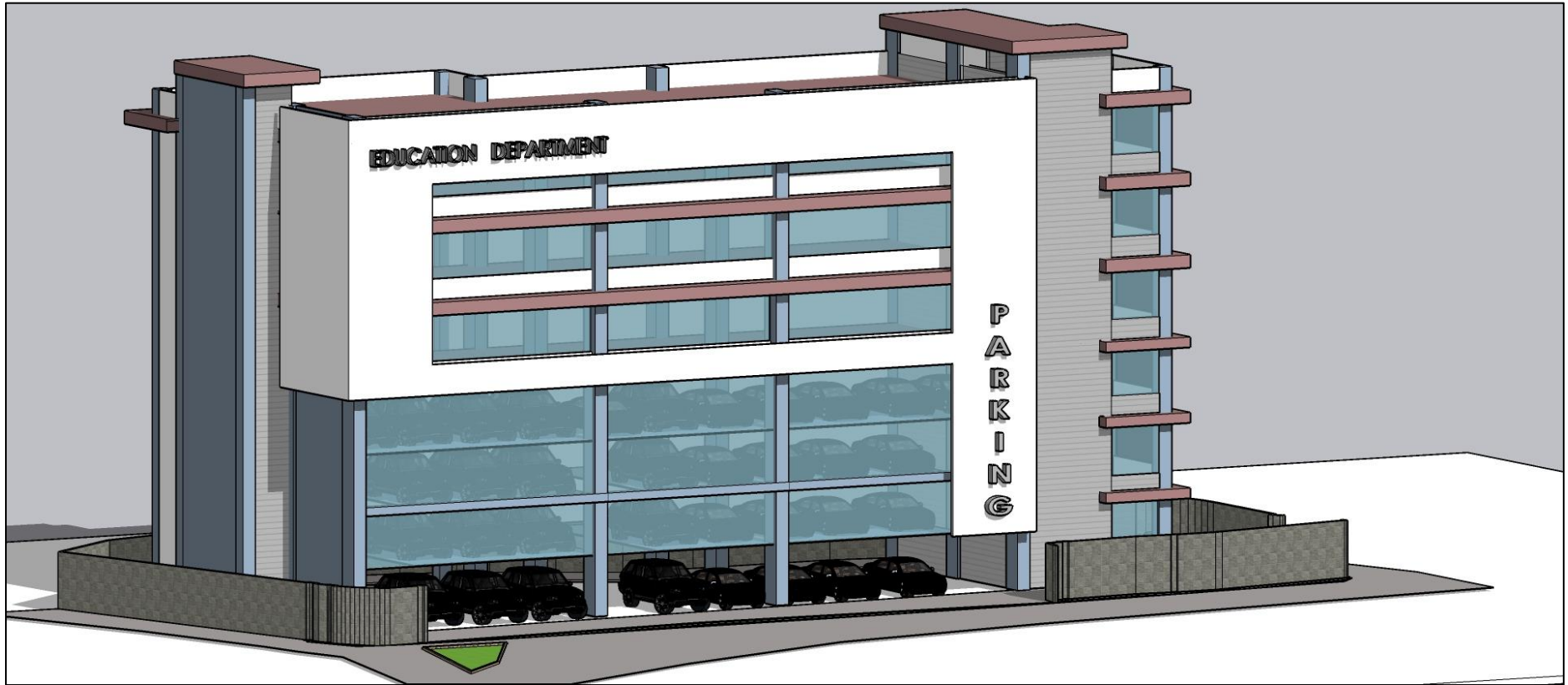
3D VIEW 1 - FRONT SIDE



### 3D VIEW 2- RIGHT SIDE



### 3D VIEW – LEFT SIDE



**SECTION 7  
FORM OF BID**



## TECH FORM – 1: LETTER OF TECHNICAL BID

Location (date)

To

[Name of the employer and address]

Dear sir

We, the undersigned, offer to provide the consulting Assignment/job [insert title of the assignment/job] in accordance with your Request for Proposal dated [dated] and our proposal. We are hereby submitting our Proposal, which includes the Technical Proposal, and a Financial Proposal sealed under a separate envelope and requisite EMD and the Bid Processing Fees.

We are submitting our proposal in association with [insert name of the associated Bidder]

We hereby declare that all the information and statements made in this proposal are true and accept that (i) any misinterpretation contained in it, and (ii) non-disclosure of required information may lead to our disqualification.

If negotiations are held during the period of validity of the proposal, i.e., before the date indicated in the Part -II data Sheet, we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Contract negotiations.

We understand you are not bound to accept any Proposal you receive

We remain

Yours sincerely

Authorizes signature [in full and initials]

Name and title of signatory

Name of Firm

Address

## TECH FORM – 2: BIDDERS INFORMATION SHEET

Name of the Bidder	
Name of the JV/Association partner if any	
Address of Registered Office of Lead Bidder	
Year of Establishment:	
Contact Person with Contact Details:  (Name, address, telephone numbers, fax numbers, e-mail address)	
Annual Turnover* in last three years ( in Lakhs)  FY 2021-22:  FY 2020-21:  FY 2019-20:  Average Annual Turnover for above three Financial Years:  *Financial Statements to be enclosed	
PAN Number	
GST Number	
Any Other Relevant Details:	
<b>*Enclose the copies of the following original documents.</b> <input type="checkbox"/> 1. In case of single entity, articles of incorporation or constitution of the legal entity named above. <input type="checkbox"/> 2. Authorization to represent the firm or JV named in above. <input type="checkbox"/> 3. In case of JV or Consortium or Association, relevant Agreement. <input type="checkbox"/> 4. In case of a government-owned entity, any additional documents not covered under 1 above.	

(Signature of Authorized Person)

Date:

Seal:

*Each member of a JV or Consortium or Association must fill in this form*

*For brevity, only JV is mentioned below*

<b>JV / Specialist Sub-Contractor Information</b>	
Bidder's legal name	
JV Partner's or Specialist Sub-Contractor's legal name	
JV Partner's or Specialist Sub-Contractor's country of constitution	
JV Partner's or Specialist Sub-Contractor's year of constitution	
JV Partner's or Specialist Sub-Contractor's legal address in country of constitution	
JV Partner's or Specialist Sub-Contractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	
<b>*Enclose the copies of the following original documents.</b>	
<input type="checkbox"/> 1. Articles of incorporation/constitution or Partnership Deed (as applicable) of the legal entity named above	
<input type="checkbox"/> 2. Authorization to represent the firm named above.	
<input type="checkbox"/> 3. In the case of government-owned entity, documents establishing legal and financial autonomy and compliance with commercial law.	

## TECH FORM – 2A: JV AGREEMENT

**Joint Venture Agreement (\*Similar Consortium Agreement/ Association Agreement to be signed in case of a Consortium/ Association)**  
(On Rs 200/- Non-judicial Stamp Paper)

**Memorandum of Understanding for**

### JOINT VENTURE

This Memorandum of Understanding (hereinafter referred to as "**MOU**") is made and entered into this  
----- ("**Effective Date**").

#### BETWEEN

M/s. \_\_\_\_\_, a company incorporated, and having its registered office at \_\_\_\_\_.  
(Hereinafter referred to as the "**First Party**"/ "**One Partner**").

M/s. \_\_\_\_\_) a company incorporated, and having Registered office at \_\_\_\_\_. (Hereinafter referred to as the "**Second Party**"/ "**Each Partner**").

Hereinafter jointly referred to as the "**Parties**" and individually as "**Each Party**" or "**a Party**" as the case may be.

WHEREAS,

A) **SHILLONG SMART CITY LIMITED, Shillong, Meghalaya** (hereinafter referred to as the **SSCL or procuring entity**) invited bid for \_\_\_\_\_  
[name of the work]

(B) The Parties hereto formed a Joint Venture or will form a joint venture (hereinafter referred to as the "**JV**") to jointly execute the above project in all respect

**NOW THEREFORE IT IS HERE BY AGREED** as follows

#### **ARTICLE 1: JOINT VENTURE:**

- 1.1. The Parties hereto agree to form the Joint Venture with \_\_\_\_\_ designated as the One Partner and First Partner.
- 1.2. \_\_\_\_\_ shall be the Second Member – or Second Partner

#### **ARTICLE 2: JOINT VENTURE NAME:**

2. The JV shall do business in the name of " \_\_\_\_\_ Joint Venture"

#### **ARTICLE 3: JOINT AND SEVERAL LIABILITY:**

3. The Parties hereto shall, for the above-referred Projects, be jointly and severally liable to the Employer for the execution of the Projects in accordance with the Contract till the actual completion of Contract including defect liability period and operation & maintenance as per bid conditions.

**ARTICLE 4: PROPORTIONATE SHARE:**

- 4.
- 4.1. Each member of the Joint Venture agrees to place at the disposal of the Joint Venture, the benefit of all its experience, technical knowledge and skill, and shall in all respects bear its share of responsibility and burden of completing the contract. The parties herein shall be responsible for physical and financial distribution of work as under.

**Lead Partner:**

Financial responsibility: -----

Physical responsibility: -----

**Other Partner:**

Financial responsibility: -----

Physical responsibility: -----

- 4.2. All rights, interests, liabilities, obligations, risks, costs, expenses and pecuniary obligations and all net profits or net losses arising out of the Contract shall be shared or borne by the Parties in the above Proportions.
- 4.3. The members in the proportion as mention in article 4.1, shall contribute sufficient Initial fixed capital for timely execution of the project including commissioning & operating period as per the contract.

**ARTICLE 5: JOINT EFFORT AND MANAGEMENT:**

- 5.
- 5.1. The Parties shall participate as a JV in the submission of bids and further negotiations with the Employer and shall co-operate and contribute their respective expertise and resources to secure and execute the Projects.
- 5.2. On award of Projects, the First Partner in consultation with the other member of JV will decide on the final management structure for the successful execution of the Projects as per the terms of Contract.
- 5.3. All the Parties hereby agree to pool in their financial, administrative, managerial, technical and material resources for execution of the Projects, including commissioning & operation for the period as stipulated in the contract. The share of interest of the JV shall be as per the mutual understanding for the successful completion of the project.

**ARTICLE 6: EXCLUSIVITY:**

- 6.
- 6.1. The co-operation between the Parties hereto shall be mutually exclusive i.e. none of them shall without the other Party's consent & prior approval of SSCL, approach or cooperate with any other parties in respect of the Project.
- 6.2. In the course of working as associates, the parties to the JV will be sharing information with each other which may be proprietary /confidential information /knowledge acquired by each other. It is hereby agreed that the parties will maintain complete secrecy regarding such information /

knowledge and will not divulge to any party for any other purpose except for the success of the joint execution of the contract. All parties will also indemnify each other against any claim that may arise out of using information, which are being claimed proprietary.

**ARTICLE 7: MEMORANDUM OF UNDERSTANDING:**

7.

7.1. This Memorandum of Understanding shall be terminated: -

- a. if the Parties mutually confirm that the JV's bid proposal has not been finally accepted by Employer and all rights and obligations of the Parties under or in connection with this Memorandum of Understanding have ceased, or
- b. after successful completion of the project including commissioning & operation and defect liability period from the date of this Memorandum of Understanding unless extended for a further period on demand of SSCL & mutual consent of the Parties, or

7.2. The Memorandum of Understanding can be modified by mutual consent of the Parties to suit the efficient and expeditious execution of Projects including commissioning & operation of Plant or to make this agreement more meaningful to suit the requirements of Employer after the consent of the Employer.

**ARTICLE 8: ARBITRATION:**

8.

Any dispute resulting from this Agreement shall be settled amicably by mutual Consultation by the Managing Directors/ Chairman of \_\_\_\_\_ & \_\_\_\_\_. In the event that an amicable settlement is not reached within 60 days in any particular case, the dispute shall be referred to arbitration and shall be resolved in accordance with and subject to the provisions of the \_\_\_\_\_ and any statutory modifications and enactment hereof for the time being in force. The decision of the arbitrators shall be final and binding upon both parties. The venue of arbitration will be \_\_\_\_\_.

**ARTICLE 9: GOVERNING LAWS:**

9.

This Agreement shall in all respects be governed by and interpreted in accordance with the \_\_\_\_\_ Laws.

**ARTICLE 10: CONFIDENTIALITY:**

10.

No Party hereto shall disclose to any other party any information of a confidential nature including but not limited to trade secrets, know-how acquired from any Party in connection with the subject matter of this Agreement.

**ARTICLE 11: ADDRESS OF CONSORTIUM:**

11.

Any and all correspondence from the Employer to the JV shall be addressed to (name of JV) at the address stated herein below– (any one of the partners). The address of the Consortium office of the partner companies will be deemed to be the address for the purpose of communication. The notice, if

any required to be served on the party by the other party, will be deemed to be served, if the said notice / communication is delivered by Registered Post at the respective address (name of JV)

\_\_\_\_\_  
\_\_\_\_\_

**ARTICLE 12: AUTHORIZED REPRESENTATIVE:**

12.

The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.

Authorized Representative of JV: \_\_\_\_\_

**ARTICLE 13: ASSIGN ABILITY:**

The interests and rights of a Party in the Contract and as a Party of the Joint Venture shall not be transferable or assignable without the written consent of the Employer & other party.

**ARTICLE 14: INTERPRETATION OF HEADINGS:**

The headings of each of the Articles herein contained are inserted merely for convenience of reference and shall be ignored in the interpretation and construction of any of the provisions herein contained.

**ARTICLE 15: OTHERS**

Any other matters not contained in this Agreement shall be discussed and amicably agreed upon by the Parties in the spirit of mutual trust and cooperation for timely completion of project including commissioning & operation of project. Notwithstanding anything above all the Parties are severally and jointly responsible to the Employer for execution of the Contract:

**IN WITNESS WHEREOF** the Parties hereto have caused this Agreement to be executed by each of the duly authorized representatives as appearing below: -

Signed by \_\_\_\_\_ in the presence of \_\_\_\_\_  
For and on behalf of (\_\_\_\_\_) Name:  
Designation:  
Name:  
Designation:

Signed by \_\_\_\_\_ in the presence of \_\_\_\_\_  
For and on behalf of (\_\_\_\_\_) Name:  
Designation:  
Name:  
Designation:

## TECH FORM – 2B (1)

### Format for power of attorney authorising the lead member of a JV (or Consortium/ Association, as applicable)

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

To know all men by these presents that we parties whose details are as follows;

1. M/s \_\_\_\_\_, having its registered office at \_\_\_\_\_ (hereinafter referred as "\_\_\_", which the term shall unless otherwise repugnant to the context shall mean and include all its successors and permitted assigns) and represented by its \_\_\_\_\_
2. M/s \_\_\_\_\_, having its registered office at \_\_\_\_\_ (hereinafter referred as "\_\_\_", which the term shall unless otherwise repugnant to the context shall mean and include all its successors and permitted assigns) and represented by its \_\_\_\_\_

Have entered into a JV agreement for the purpose of tender for \_\_\_\_\_ vide tender No: \_\_\_ and with our principal place of business at \_\_\_\_\_ herein after referred as "\_\_\_", which the term shall unless otherwise repugnant to the context shall mean and include all its successors and permitted assigns)

We, the above said parties, through this power of attorney mutually agrees to hereby constitute, nominate and appoint "\_\_\_\_\_", who is the lead member of the JV as our duly constituted Lawful Attorney (hereinafter referred as "Lead Member") to exercise all or any of the powers for and on behalf of the JV Members in regards to the Specification No. \_\_\_\_\_, the bids for which have been invited by the Shillong Smart City Limited (herein after referred to as "SSCL")

- a. To submit proposal and participate in the above-mentioned bid specification of SSCL on behalf the "JV".
- b. To negotiate with the Purchaser the terms and conditions for award of the contract pursuant to the above-mentioned bid and to sign the Contract with SSCL for and on behalf of the "JV".
- c. To do any other act or submit any document related to the above.
- d. To receive, accept and execute the contract for and on behalf of the "JV".
- e. To authorise any person, employee or otherwise to represent the Lead Member and JV for doing the aforesaid
- f. In the event of an order placed on the JV the work shall be executed as per the terms and conditions of the Purchase Order issued and the Agreement executed between SSCL and the JV.

It is expressly understood that this Power of Attorney shall remain valid, binding and irrevocable until the completion of the tender or till the completion of the tenure of contract to be executed between the JV and Shillong Smart City Limited, if tender is awarded in favour of the JV.

We hereby agree to ratify all the acts, deeds and things lawfully done by the Lead Member and its authorised person/s pursuant to this Power of Attorney and that all acts, deeds and things done by above mentioned Lead Member shall always be deemed to have been done by us.

IN WITNESS THEREOF, the Members constituting the JV as previously mentioned have executed these presents on this \_\_\_ day of \_\_\_ 20\_\_\_ under the Common Seal(s) of their companies.

For \_\_\_\_\_

For \_\_\_\_\_

Authorized Signatory

Authorized Signatory



## TECH FORM – 2B (2)

### Format for power of attorney authorising signatory of bid

[To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

Know by all men by these presents, We \_\_\_\_\_ (Name of the Bidder and address of their registered office) do hereby constitute, appoint and authorize Mr. / Ms \_\_\_\_\_ (name and residential address of Power of attorney holder) who is presently employed with us and holding the position of \_\_\_\_\_ as our true and lawful attorney (hereinafter referred to as the "Authorized Representative") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for the Bid for "**Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong**", under Shillong Smart City Mission including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre bid and other conferences and providing information/responses to SSCL, representing us in all matters before SSCL, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with SSCL in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us till the entering into of the Agreement with SSCL.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorized Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorized Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, ..... THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS .....DAY OF ....., 20\*\*

For \_\_\_\_\_

Name:

Designation:

Date:

Time:

Seal:

Business Address:

Witness:

1.

2.

Notarized Accepted

Signature of the Applicant  
(Signature, name, designation, and address)

Bid for “**Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong**”, under Shillong Smart City Mission, East Khasi hills district, Meghalaya.

Accepted,

\_\_\_\_\_ (Signature)  
(Name, Title and Address of the Attorney)

Note:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- The Power of Attorney shall be provided on a stamp paper of Rs.200/- and above
- The Power of Attorney should be supported by a duly authorized resolution of the Board of Directors of the Bidder authorizing the person who is issuing this power of attorney on behalf of the Bidder.

#### CERTIFICATE AS TO AUTHORISED SIGNATORIES

I \_\_\_\_\_, the Company Secretary of \_\_\_\_\_, certify that \_\_\_\_\_ who signed the above Bid is authorized to do so and bind the company by authority of its board/ governing body.

Date:

Signature:

(Company Seal) (Name)

### TECH FORM – 3A: FINANCIAL CAPACITY

Each Bidder or member of a JV or Consortium or Association must fill in this form

SN	Description	Financial Data for Latest Last 3 Years (Indian Rupees)		
		Year 2019-20	Year 2020-21	Year 2021-22
1	Total Assets			
2	Current Assets			
3	Total external Liabilities			
4	Current Liabilities			
5	Profits Before Taxes			
6	Profits After Taxes			
7	Net Worth = (1-3)			
8	Working Capital = (2-4)			
9	Annual Turnover			

\*Enclose the copies of financial statements (balance sheets including all related notes, and income statements) for the last THREE years, as indicated above, complying with the following conditions.

- All such documents reflect the financial situation of the legal entities comprising the Bidder or partner to a JV, and not sister or parent companies, subsidiaries, or affiliates
- financial statements must be audited by a certified accountant.
- financial statements must be complete, including all notes to the financial statements.
- financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

**TECH FORM – 3B: AVERAGE ANNUAL TURNOVER FROM MLCP PROJECTS  
(INCL. O&M)**

**Each Bidder or member of a JV or Consortium or Association must fill in this form  
(Certified by Chartered Accountant).**

<b>Annual Turnover Data for the Last 3 Years (MLCP works only)</b>			
<b>Year</b>	<b>Amount Currency</b>	<b>Exchange Rate</b>	<b>INR Equivalent</b>
Year-1 2021-22			
Year-2 2020-21			
Year-3 2019-20			
Average Annual Turnover for the Last 3 Years			

The information supplied should be the Annual Turnover of the Bidder or each member of a JV in terms of the amounts billed to Clients for each year for work in progress or completed, converted to INRs at the rate of exchange at the end of the period reported.

## TECH FORM – 4A: AVAILABILITY OF FINANCIAL RESOURCES

Specify proposed sources of financing, such as liquid assets, lines of credit, and other financial resources (means other than any Contractual advance payments), available to meet the financial resources requirements. Each Bidder or member of a JV must fill in this form.

Financial Resources		
SN	Source of financing	Amount (INR equivalent)
•		
•		
•		

**Note:**

- i. The bidder shall provide supporting documents like letter from the Banks for the revolving line of credit facility etc specific to the project if applicable for its declared availability of financial resources.
- ii. Bidder shall provide details on available credit facility from each source of financing after utilizing to the commitments

**TECH FORM – 4B: SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR  
AVAILABILITY OF CREDIT FACILITIES**

**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.

Signature of Bank Manager \_\_\_\_\_

Name of the Bank Manager \_\_\_\_\_

Address of the Bank -----

Stamp of the Bank

Place:

Date:

Note: Certificate should be on the letter head of the bank.

## TECH FORM – 4C: FORMAT OF SOLVENCY CERTIFICATE

No.....

To .....

.....

This is to state that to the best of our knowledge and information, Mr. / Ms. / M/s .....  
a customer of our Bank is respectable and can be treated as good up to a sum of Rs.....  
(Rupees in words .....).

It is clarified that this information is furnished without any risk and responsibility on our part in any  
respect whatsoever more particularly either as guarantor or otherwise. This certificate is issued at the  
specific request of the customer.

Signature of Bank Manager \_\_\_\_\_

Name of the Bank Manager \_\_\_\_\_

Address of the Bank -----

Stamp of the Bank

Place:

Date:

Note:

- (i) Certificate should be on the letter head of the bank and to be signed by Bank Manager/ Senior Bank Manager.
- (ii) In case of partnership firm, the certificate shall include name of all the partners as recorded with Bank.

### TECH FORM – 5: CURRENT CONTRACT COMMITMENTS / WORKS IN HAND

Bidder (or each JV partner) should provide information indicated below in order to calculate the aggregated financial resources requirement, which equals the sum of: (i) the Bidder's (or each JV partner's) current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued and (ii) financial resources requirement for subject contract as determined by the Employer. Bidder must also disclose any other financial obligations that could materially affect the implementation of subject contract if such contract were to be awarded to the Bidder.

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



## TECH FORM – 6: BIDDING CAPACITY INFORMATION & DECLARATION

***(To be submitted by bidder through affidavit)***

Bidders (JV put together) who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the Cost of Construction as per 13.1 (A) of ITB. The available bid capacity will be calculated as under:

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

Where,

**A** = Maximum value of civil engineering works executed in any one year during the last seven years (updated to the price level of the last year at the rate of 8 percent a year) 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 (period up to 6 months to be taken as half-year and more than 6 months as one year).  $M = 2.5$

**B** = Value, at the current price level, of existing commitments and on-going works to be completed during the period of completion of the works for which bids are invited.

Note:

- i. The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in Charge, not below the rank of an Executive Engineer or equivalent.
- ii. In the case of a JV or Consortium or Association, the above formula will be applied to each member to the extent of the proposed participation in the JV or Consortium or Association. If the proposed % participation is not mentioned, then equal participation will be assumed.

Example for calculation of bid capacity in case of JV or Consortium or Association

Suppose there are 'P' and 'Q' members of the JV or Consortium or Association with their participation as 70% and 30% respectively and available bid capacity of these members as per above formula individually works out 'X' and 'Y' respectively, then Bid Capacity of the JV or Consortium or Association shall be as under:

$$\text{Bid Capacity of the JV or Consortium or Association} = 0.7X + 0.3Y$$

### TECH FORM – 7: BIDDER’S EXPERIENCE IN SIMILAR WORKS

Each Bidder or member of a JV or Consortium or Association must fill in this form

General Construction Experience				
Starting Month Year	Ending Month Year	Years	Contract Identification and Name; Name and Address of Employer; and Brief Description of the Works Executed by the Bidder (including value of works)	Role of Bidder

## TECH FORM – 7(A): DETAILES OF EACH OF THE SIMILAR WORK

[List projects/Products in the last Seven years which are similar to that in the RFP.]

[The following information should be provided in the format below for each reference assignment for which your firm, either individually as a corporate entity or as one of the major companies within a consortium, was legally contracted by the Employer stated below.]

<b>Name of the Project:</b>	<b>Approx. value of the contract (in current `):</b>
<b>Country:</b> <b>Location within country:</b>	<b>Duration of contract (months):</b>
<b>Name of Client:</b>	
<b>Address:</b>	
<b>Start date (month/year):</b> <b>Completion date (month/year):</b>	
<b>Name of joint venture partner or associated partner if any:</b>	
<b>Name of senior regular full-time employees of the firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader):</b>	
<b>Narrative description of Project:</b>	
<b>Description of actual services* provided in the Contract:</b>	

*\*Copy of Work order /completion certificate to be submitted*

**Firm's Name:** \_

**Signature of Authorized Representative:**

## **TECH FORM – 8A: SITE ORGANIZATION**

(Bidder shall insert the Site Organization information)

The Bidder shall supply a table of personnel and a chart showing the proposed organization to be established for (i) carrying out the construction works during all phases of works included under this Contract package like mobilization; preparation of Service Improvement Plan; design, drawing, construction and commissioning separately.

## **TECH FORM – 8B: APPROACH & METHODOLOGY**

***(Bidder shall insert the Approach & Methodology complying to the following)***

1. The bidder is required to submit Approach and Method Statement for carrying out all the activities under this project.
2. The activities for methodology shall also include following:
  - a. Bidder's assessment of site(s), availability of construction materials, labour, etc.
  - b. Surveys/Investigations, if required,
  - c. Preparation of phasing of works,
  - d. Construction Methodology for various works,
  - e. Implementation schedule as per scope of works:
  - f. Proposed Safety Plan / safety measures to be put in place,
  - g. Proposed mechanism to protect environment,
  - h. Preparation of O&M Manual,
  - i. Any other activities

## **TECH FORM – 8C: MOBILIZATION SCHEDULE**

*(Bidder shall insert the Mobilization Schedule)*

The Bidder shall submit mobilization and de-mobilization schedule of personnel and equipment in detail for all phases of works. The mobilization schedule should include mobilization of skilled and unskilled manpower, different machineries and equipment, materials, as required in each Phase.

## **TECH FORM – 8D: WORK PLAN AND CONSTRUCTION SCHEDULE**

***(Bidder shall insert the Work plan and Construction Schedule)***

The Contractors will submit detailed work plan as part of technical bid covering all sections of work to achieve sectional and full work key milestones as shown in Employer's Requirement

The Bidder shall prepare and submit overall construction schedule. The construction schedule shall be designed and documented in a series of tasks and task assignments complete with projected completion target dates with the aid of computer operated management software like Microsoft project office, Primavera or latest by using Gantt charts and PERT diagrams to allow all actors to know their contribution towards fulfilling the Employer's Requirement.

### TECH FORM – 8E: EQUIPMENT

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Clause 4.4.3(a) of ITB. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Please provide the following additional information in case of equipment proposed to be taken on rent or lease:

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

Note: For owned equipment, copy of bills/invoices are to be furnished (only owned equipment are to be given marks during evaluation of Bids).

Item of Equipment	Requirement			Owned and available		Remarks
	No.	Capacity	Owned	Number/ Capacity	Age/ Condition	



## TECH FORM – 8F: RESUME OF PROPOSED PERSONNEL

1. Proposed Position:

2. Name of Firm:

3. Name of  
Staff:

4. Date of Birth:

5. Nationality:

6. Education:

[Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment]:

7. Other Training:

8. Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]:

9. Employment Record:

[Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held.]:

From [Year]: To Year]:

Employer:

Positions held:

12 Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

[Among the Assignment/jobs in which the staff has been involved, indicate the following information for those Assignment/jobs that best illustrate staff capability to handle the tasks listed under point 12.]

Name of Assignment/job or project:

Year:

Location:

Employer:

Main project features:

Positions held: Activities

performed:

13. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date: [Signature of staff member or authorized

Place: representative of the staff]

[Full name of authorized representative]:

## TECH FORM – 9: PENDING LITIGATIONS

Each Bidder or member of a JV or Consortium or Association must fill in this form.

<b>Pending Litigation</b>			
<b>No pending litigation and arbitration in accordance with Clause 4.2(j) of ITB.</b>			
<b>or</b>			
<b>Below is the description of all Pending litigation and arbitration involving the bidder (or each JV member if Bidder is a JV member) in accordance with Clause 4.2(j) of ITB</b>			
<b>Year &amp; Client</b>	<b>Matter in Dispute</b>	<b>Value of Pending Claim in INR</b>	<b>Value of Pending Claim as a Percentage of Net Worth</b>

**TECH FORM – 10: FORMAT FOR DECLARATION BY THE BIDDER FOR NOT  
BEING BLACKLISTED / DEBARRED**

(To be submitted on the Letterhead of the Bidder)  
(To be provided by Lead bidder and all members of Consortium in separate letters)

Date: dd/mm/yyyy

To

\_\_\_\_\_  
\_\_\_\_\_

Subject: Declaration for not being debarred / black-listed by any Ministry/Department/Agency of  
Central Government/any State Government/any Union Territory or PSU or Local Body  
in India as on the date of submission of the bid

RFP Reference No: XX

Dear Sir,

I, authorized representative of \_\_\_\_\_, hereby solemnly confirm that the  
Company \_\_\_\_\_ is not debarred / black-listed by any Central/State  
Government/ PSU entity in India or similar agencies globally for unsatisfactory past performance,  
corrupt, fraudulent or any other unethical business practices or for any other reason as on last date of  
submission of the Bid. In the event of any deviation from the factual information/ declaration, SSCL  
reserves the right to reject the Bid or terminate the Contract without any compensation to the Company.

Thanking you,

Yours faithfully,

\_\_\_\_\_

Signature of Authorized Signatory (with official seal)

Date:

Name:

Designation:

Address:

Telephone & Fax:

E-mail address:

## **TECH FORM – 11: INTEGRITY PACT**

To  
The Chief Executive Officer,  
Shillong Smart City Limited (SSCL)  
Shillong, Meghalaya.

**Sub:** Submission of Tender for the work of “**Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong,**” under Shillong Smart City Mission, East Khasi hills district, Meghalaya.

Dear Sir,

I/We acknowledge that Shillong Smart City Limited (SSCL) is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed Integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by SSCL. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, SSCL shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/ bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

**To be signed by the bidder and signatory competent / authorized to sign the relevant contract  
on behalf of SSCL**

**INTEGRITY AGREEMENT**

This Integrity Agreement is made at..... on this ..... day of..... 20 .....

**BETWEEN**

Shillong Smart City Limited (SSCL) represented through the Chief Executive Officer, (Hereinafter referred as the '**Principal/Owner**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

**AND**

..... (Name and Address of the Individual/firm/Company) through .....  
(Details of duly authorized signatory) (Hereinafter referred to as the "**Bidder/Contractor**" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

**Preamble**

WHEREAS the Principal / Owner has floated the Tender (Tender No .....)  
(Hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for (Name of work) hereinafter referred to as the "Contract".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relationship with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

**Article 1: Commitment of the Principal/Owner**

- (1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
  - c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- (2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act)

or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer of Meghalaya and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

**Article 2: Commitment of the Bidder(s)/Contractor(s)**

- (1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government /Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- (2) The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
  - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
  - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
  - c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
  - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly, Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
  - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- (3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- (4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a wilful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the

purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

- (5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

### **Article 3: Consequences of Breach**

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- (1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the Contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or Terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- (2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- (3) Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

### **Article 4: Previous Transgression**

- (1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.
- (3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

### **Article 5: Equal Treatment of all Bidders/Contractors/Sub-Contractors**



- (1) The Bidder(s)/Contractor(s) undertake(s) to demand from all sub-Contractors, if applicable, a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-Contractors/sub-vendors.
- (2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- (3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/ Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

#### **Article 6- Duration of the Pact**

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority.

#### **Article 7- Other Provisions**

- (1) This Pact is subject to Indian Law, place of performance and jurisdiction is Shillong, Meghalaya.
- (2) Changes and supplements need to be made in writing. Side agreements have not been made.
- (3) If the Contractor is a Joint Venture or Consortium or Association, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- (4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- (5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

#### **Article 8- LEGAL AND PRIOR RIGHTS**

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

(For and on behalf of Principal/Owner)

(For and on behalf of Bidder/Contractor)

**WITNESSES:**

1 .....

(Signature, name, and address)

2 .....

(Signature, name and address)

Place:

Dated

## **TECH FORM – 12: CERTIFICATE FROM THE BIDDERS REGARDING COMPLIANCE**

Format for Certification in accordance with Clause 3.6 of ITB

### Certificate

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority<sup>12</sup>. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. *[Where applicable, evidence of valid registration by the Competent Authority shall be attached]*

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<sup>12</sup> For the purpose of this registration, Competent Authority is as defined in office memorandum no F.No.6/18/2019-PPD Ministry of Finance Department of Expenditure Public Procurement Division dated 23rd July, 2020

## FIN FORM – 1: LETTER OF FINANCIAL BID

[to be submitted in Financial Bid Envelope]

Dated:

To,

The Chief Executive Officer,  
Shillong Smart City Limited (SSCL)

We, the undersigned, declare that:

- a. We have examined and have no reservations to the Bidding Documents, including Addenda issued,
- b. We offer to execute in conformity with the Bidding Documents and the Technical Bid submitted for the following Works: Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong, under Shillong Smart City Mission, East Khasi hills district, Meghalaya
- c. The bid price for the design and construction of a) Office Complex, and b) Fully Automatic Multi Level Car Parking Facility for 70 ECS including 5 years of O&M, including defect liability period of 1 (One) year as per the financial bid format is Rs. .... (In figure and words);
- d. Our Bid shall be valid for a period of 180 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- e. If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents,
- f. We confirm, an Annual Guaranteed License fee shall be payable to SSCL during the operation and maintenance period of five (5) years for MLCP as per Clause 13.3 of ITB upon successful award of the contract.
- g. We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- h. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signature of Authorised Person

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

Company Seal

### Template for Financial Bid

**Project Name:** Development of Office Cum Automated Multi-Level Car Park (On DBOT Basis) at Mawkhar, Shillong, Under Shillong Smart City Mission, East Khasi Hills District, Meghalaya.

**For Design and Construction** of a) Mechanized Fully Automatic Multi Level Car Parking Facility along with 5 years of O&M, and b) Construction of Office Complex including defect liability period of 1 (One) year as per detailed scope & specification of RFP.

Sr. No.	Description of Item	Qty.	Unit Rate	Amount in Rs. (Figure)	Amount in Rs. (Words)
<b>a)</b>	<b>Cost of Civil works including Office Complex &amp; MLCP.</b>	<b>Plinth Area</b>			
	Design and Construction of Office Complex and other Civil Works as per scope and technical specification under RFP including one year of defect liability period after construction.	<b>2315 Sq.m</b>			
<b>b)</b>	<b>Design and Construction of Mechanized Fully Automatic Multi Level Car Parking</b> Facility for Four-Wheeler, having Six Level (Ground level & 3 upper floors) Multi Grid automated Parking System with Electro Mechanical Technology accommodating minimum 70 ECS. The parking system shall be designed for permitting cars with the following characteristics: Admissible Car size (L x W x H): 5 M x 2.2 M x 2.15 M (All SUV Floors) Maximum allowable weight of the car: 2300 Kg. Model: High Density Parking System.  Including, three side weather proof trifold sheet cladding; Sprinklers System and other Fire Fighting Provisions;  Transformer, DG, UPS & Automatic Changeover; and  Parking Management System, Boom barrier, ANPR Camera and mobile app.	<b>70 Nos.</b>			

Sr. No.	Description of Item	Qty.	Unit Rate	Amount in Rs. (Figure)	Amount in Rs. (Words)
	The system must be having safety features as outlined in specifications and maintained for complete duration of O&M period of 5 years.				
	<b>Total Price Part (a +b)</b>				

Signature of Authorised Person

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

Company Seal

## **OTHER FORMS**

## FORMAT A: FORMAT OF SENDING PRE-BID QUERIES

**NIT Reference No: XX**

Bidder's Request for Clarification				
SN	Clause No.	Page No.	Content of Bid document Requiring Clarification	Change Requested/ Clarification required
1				
2				
3				
4				
5				

Signature:

Name of the Authorized signatory:

Company seal:

Date and Stamped

**Note: Bidder(s) are requested to send the queries in PDF with Sign and Company Seal and also in MS Word / Excel for making consolidation process easy.**



**FORMAT B: LETTER OF ACCEPTANCE (LOA)**

To,

M/s.....  
.....  
.....

This is to notify you that on behalf of the Employer, the Chief Executive Officer, Shillong Smart City Limited has accepted your Bid dated ..... for ..... [name of the work] for the Contract Price of Rs..... (Rupees.....only).

You are hereby requested to furnish the following within 10 days of the receipt of this Letter of Acceptance valid up to 45 days from the date of expiry of Defects Liability Period (i.e., up to .....) and sign the contract, failing which action as stated in Clause 33 of ITB will be taken.

- Performance Security, in the form detailed in Clause 33 of ITB for an amount of Rs..... (Rupees.....).

Yours faithfully,

Chief Executive Officer  
Shillong Smart City Limited

**FORMAT C: ISSUE OF NOTICE TO PROCEED WITH THE WORK**

LETTER NO.....

DATED.....

To,

.....

.....

.....

Dear Sir,

Pursuant to your furnishing the requisite Performance Security in accordance with Clause 33 of Instructions to Bidders (ITB) and Clause 45 of General Conditions of Contract (GCC) of the Bidding Document and signing of the contract for \_\_\_\_\_ [name of the work], you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully

Chief Executive Officer  
Shillong Smart City Limited

## FORMAT D: AGREEMENT

This Agreement is made at..... on this ..... day of..... 2022.

### BETWEEN

Shillong Smart City Limited (SSCL) represented through the Chief Executive Officer, (hereinafter called "the Employer", which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

### AND

M/s \_\_\_\_\_ [name and address of the Contractor/JV or Consortium or Association] through \_\_\_\_\_ [name of the PoA holder] (hereinafter called "the Contractor", which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Whereas the Employer is desirous that the Contractor execute the Work of \_\_\_\_\_ [name of the work] (hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein at a cost of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) and applicable GST.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
  - i) Letter of Acceptance;
  - ii) Notice to proceed with the works;
  - iii) Contractor's Bid;
  - iv) Contract Data;
  - v) Special Conditions of contract and General Conditions of Contract;
  - vi) Scope of Work and Technical Specifications;
  - vii) Drawings;
  - viii) Addenda and Corrigenda; and
  - ix) Any other document listed in the Contract Data as forming part of the contract.
    - a) Response to pre-bid queries; and
    - b) Performance Security furnished by the Contractor.

In WITNESS WHEREOF, the parties through their duly Authorized representatives have executed these presents (execution whereof has been approved by the Competent Authorities of both the parties) on the day, month and year first above mentioned at Shillong.

For and on behalf of:

For and on behalf of:

Chief Executive Officer  
Shillong Smart City Limited  
Shillong, Meghalaya

M/s \_\_\_\_\_  
[name and address of the Contractor]

WITNESS

WITNESS:

1.

1.

2.

2.

## FORMAT E: BANK GUARANTEE FOR ADVANCE PAYMENT

(Unconditional irrevocable Bank guarantee of any  
nationalized/ scheduled banks on INR 100/- Stamp Paper)

To,  
Chief Executive Officer,  
Shillong Smart City Limited  
Shillong, Meghalaya

Gentlemen:

In accordance with the provisions of the General Conditions of contract, clause 44 ("Advance Payment") of the above-mentioned Contract, \_\_\_\_\_ [name and address of Contractor, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof] (hereinafter called "the Contractor") shall deposit with \_\_\_\_\_ [name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of \_\_\_\_\_ [amount of guarantee] \_\_\_\_\_ [in words].

We, the \_\_\_\_\_ [bank or financial institution] as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to \_\_\_\_\_ [name of Employer] on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding \_\_\_\_\_ [amount of guarantee]<sup>13</sup> \_\_\_\_\_.

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed thereunder or of any of the Contractor documents which may be release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

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

Yours truly,

Signature and seal: \_\_\_\_\_

Name of Bank/Financial Institution: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

<sup>13</sup> An amount shall be inserted by the bank or financial institution representing the amount of the Advance Payment and denominated in Indian Rupees.

## FORMAT F: PERFORMANCE BANK GUARANTEE

(Unconditional irrevocable Bank guarantee of any  
nationalized/ scheduled banks on INR 100/- Stamp Paper)

To,  
Chief Executive Officer,  
Shillong Smart City Limited  
Shillong, Meghalaya

WHEREAS \_\_\_\_\_ [Name and Address  
of Contractor, which in the case of a joint venture shall be the name of the joint venture (whether legally  
constituted or prospective) or the names of all members thereof] (Hereinafter called "the Contractor")  
has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ to execute  
\_\_\_\_\_ [Name of Contract and brief description of Works] herein after 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 Nationalized Bank for the sum specified therein as security for compliance  
with his obligations 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 a demand for  
the sum specified therein.

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

We further agree that no change or addition to or other modification of the terms of the Contract or of  
the Works to be performed thereunder or of any of the Contract documents which may be made  
between you and the Contractor shall in anyway 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 a date 45 days after the expiry of defect liability period of 1 year  
after intended completion date.

Signature and seal of the guarantor \_\_\_\_\_

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

Address \_\_\_\_\_

Date \_\_\_\_\_

## FORMAT G: EARENST MONEY DEPOSIT/ BID SECURITY BANK GUARANTEE

(Unconditional irrevocable Bank guarantee of any  
nationalized/ scheduled banks on INR 100/- Stamp Paper)

To,  
Chief Executive Officer,  
Shillong Smart City Limited  
Shillong, Meghalaya

Whereas ..... [Name and Address of Contractor, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof] (Hereinafter called "the Contractor") has submitted the bid for Submission of RFP..... [RFP Number] dated..... [Date] for..... [Name of the assignment] (hereinafter called "the Bid") to..... [Name of Employer/ Authority].

Know all Men by these presents that we ..... [Name of Bank] having our office at ..... [Registered Address] (hereinafter called "the Bank") are bound unto the ..... [Name of Employer/ Authority] (hereinafter called "the Employer") in the sum of Indian Rupees ..... [Amount in figures] (Rupees..... [Amount in words] only) for which payment well and truly to be made to the said Employer, the Bank binds itself, its successors and assigns by these presents.

Sealed with the Common Seal of the said Bank this..... [Date]. The conditions of this obligation are:

1. If the Bidder having its bid withdrawn during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Employer during the period of validity of bid
  - a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required;  
OR
  - b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor,

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

This guarantee will remain in force up to and including the date<sup>14</sup>..... after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Engineer-in- Charge, 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.

NOTWITHSTANDING ANYTHING CONTAINED HEREIN:

- I. Our liability under this Bank Guarantee shall not exceed Indian Rupees ..... [Amount in figures] (Rupees..... [Amount in words] only)
- II. This Bank Guarantee shall be valid up to ..... [insert date]

<sup>14</sup> Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender

- III. It is a condition of our liability for payment of the guaranteed amount or any part thereof arising under this Bank Guarantee that we receive a valid written claim or demand for payment under this Bank Guarantee on or before ..... [insert date] failing which our liability under the guarantee will automatically cease.

Date: .....

(Authorized Signatory of the Bank)

Seal:

WITNESS .....

(SIGNATURE, NAME AND ADDRESS)