



BID DOCUMENT

Request for Bids

(Two-Envelope Bidding Process)

(in case of any typographical/printing errors or any doubts and clarification on this Bidding Document, the Master Document available with GSCDL shall be referred and take precedence)

RFB No: 012/GSCDL/2022,

Project identification No: SIK-GAN-027.

NAME OF THE WORK: CONSTRUCTION / UPGRADATION OF PUBLIC TOILETS IN AND AROUND GANGTOK, EAST SIKKIM

(INCLUDING DEFECT LIABILITY PERIOD OF ONE YEAR)

Standard Procurement Document

Summary

Specific Procurement Notice

RFB No: 012/GSCDL/2022, Project identification No: SIK-GAN-027.

Bidding Document: Request for Bids – Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year) (Two-Envelope Bidding Process)

PART I – BIDDING PROCEDURES

Section I - Instructions to Bidders (ITB)

This Section provides relevant information to help Bidders prepare their Bids. It is based on two (2)-envelope Bidding process. Information is also provided on the submission, opening, and evaluation of Bids and on the award of Contracts. **Section I contains provisions that are to be used without modification.**

Section II - Bid Data Sheet (BDS)

This Section includes provisions that are specific to each procurement and that supplement Section I, Instructions to Bidders.

Section III - Evaluation and Qualification Criteria

This Section specifies the criteria to determine the Most Advantageous Bid.

Section IV - Bidding Forms

This Section includes the forms for the Bid submission, Bill of Quantities or Activity Schedules to be completed by the Bidder and submitted as part of its Bid.

Section V - Eligible Countries

This Section contains information regarding eligible countries.

Section VI - Fraud and Corruption

This section includes the Fraud and Corruption provisions which apply to this Bidding process.

Section VI A Standard Specifications

This section includes List of Materials and Proposed schedule of materials, fixtures and finishes which the bidder has to consider for designing, executing and completing the said Works while bidding.

PART II – WORKS REQUIREMENTS

Section VII -Works' Requirements

This Section contains the Specifications, the Drawings, and supplementary information that describe the Works to be procured. The Works' Requirements also include the environmental and social (ES) requirements (including requirements relating to Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH)) which are to be satisfied by the Contractor in executing the Works.

PART III – CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section VIII - General Conditions of Contract

This Section contains the general clauses to be applied in all contracts. **The text of the clauses in this Section shall not be modified.**

Section IX - Particular Conditions of Contract

This Section consists the Particular Conditions of Contract which contains provisions specific to each contract. The contents of this Section modify or supplement the General Conditions and shall be prepared by the Employer.

Section X - Contract Forms

This Section contains the Letter of Acceptance, Contract Agreement and other relevant forms.



Request for Bids

(Two-Envelope Bidding Process)

Employer: Gangtok Smart City Development Limited (GSCDL)

Project: SIK-GAN-027 Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)

Bid Value: Rs 4.84 Crores

RFB No: 012/GSCDL/2022, Project identification No: SIK-GAN-027.

Issued on: 25th February 2022

1. The GSCDL is to receive financing under the Smart City Mission, and intends to apply part of the proceeds toward payments under the contract "For this contract, the GSCDL shall process the payments as per the Company policy, terms and conditions laid in this Standard Procurement Document, subject to availability of funds.
2. The GSCDL now invites sealed Bids from eligible Bidders for the work "Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)" to be completed within a period of Twelve months.
3. Bidding will be conducted through competitive procurement using Request for Bids (RFB) as specified herein and is open to all eligible Bidders as defined in the given criteria.
4. Interested eligible Bidders may obtain further information from the office of the Chief Executive Officer, GSCDL; email id – ceosmartcity.gangtok@gmail.com and inspect the bidding document during office hours between 11:00 hrs to 15:00 hrs from Date: 21/03/2022 to 22/03/2022 at the address indicated below.
5. Interested eligible Bidders may purchase the bidding document in English during working days between 11:00 hrs to 15:00hrs 09/03/2022 to 11/03/2022 at the address indicated below, upon the submission of a written application to the address below and upon payment of a nonrefundable fee of Rs. 50,000 (Rupees Fifty Thousand only). The method of payment will be through demand draft payable to Gangtok Smart City Development Limited. The DD should be issued by a Nationalized Bank and payable at Gangtok.
6. Bids must be delivered to the address indicated below, on or before 15:00 hours on 24/03/2022. Electronic bidding will not be permitted. Late Bids will be rejected. The outer Bid envelopes marked "ORIGINAL BID", and the inner envelopes marked "TECHNICAL PART" will be publicly opened in the presence of the Bidders' designated representatives and anyone who chooses to attend, at the address below at 11:00 hrs on 25/03/2022. All envelopes marked "FINANCIAL PART" shall remain unopened and will be held in safe custody of the Employer. Successful technical bidders will be informed for attending opening of the financial bidding at the Office of the undersigned at said time and date of the intimation on the notice board of GCSDDL, Level V Kissan Bazar, - 737101 Gangtok.
7. All Bids must be accompanied by a Bid Security of Rs. 12,10,000/- (Rupees Twelve Lakh Ten Thousand only). {2.5% of bid value}
8. The address(es) referred to above is (are):

Chief Executive Officer

Gangtok Smart City Development Limited, Level V Kissan Bazar, - 737101 Gangtok, Sikkim, India

Email address: ceosmartcity.gangtok@gmail.com

Website: <http://smartcitygangtok.com/> & <https://smartnet.niua.org/>

Chief Executive Officer
Gangtok Smart City Development Limited

Request for Bids

**Construction / Upgradation of public toilets in and around
Gangtok, East Sikkim**

(Including Defect Liability Period of One Year)

(Two-Envelope Bidding Process)

Procurement of:

SIK-GAN-027

RFB No: 012/GSCDL/2022, Project identification No: SIK-GAN-027.

Project: Construction / Upgradation of public toilets in and around Gangtok, East Sikkim
(including Defect Liability Period of One Year)

Employer: Gangtok Smart City Development Limited

Country: The Republic of India

Issued on: 25th February 2022

PART I

BIDDING PROCEDURES

PART I: BIDDING PROCEDURES

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Section I - INSTRUCTIONS TO BIDDERS

A. GENERAL

1. SCOPE OF BIDS:

1.1 In connection with the Specific Procurement Notice – Request for Bids (RFB), specified in the Bid Data Sheet (BDS), the Employer, as specified in the BDS, issues this bidding document for the provision of Works as specified in Section VII, Works' Requirements. The name, identification, and number of lots (contracts) of this RFB are specified in the BDS.

1.2 Throughout this bidding document:

- (a) the term **“in writing”** means communicated in written form (e.g. by mail, e-mail, fax, including if **specified in the BDS**, distributed or received through electronic-procurement system used by the Employer) with proof of receipt;
- (b) if the context so requires, **“singular”** means **“plural”** and vice versa;
- (c) **“Day”** means calendar day, unless otherwise specified as a **“Business Day.”** A Business Day is any day that is a working day of the GSCDL. It excludes the GSCDL's official public holidays;
- (d) **“ES”** means environmental and social (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH));
- (e) **“Sexual Exploitation and Abuse” “(SEA)”** means the following:
“Sexual Exploitation” is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
“Sexual Abuse” is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
- (f) **“Sexual Harassment” “(SH)”** is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor's Personnel with other Contractor's or Employer's Personnel;
- (g) **“Contractor's Personnel”** is as defined in Sub- Clause 1 (ii) of the General Conditions of Contract; and
- (h) **“Employer's personnel”** is as defined in GCC Sub-Clause 1 (nn) of the General Conditions of Contract.

1.3 A non-exhaustive list of (i) behaviors, which constitute SEA, and (ii) behaviors, which constitute SH is attached to the Code of Conduct form in Section IV.

2. SOURCE OF FUND:

2.1 The GSCDL or Recipient (hereinafter called “GSCDL”) **specified in the BDS** is to receive financing (hereinafter called “funds”) from the Smart City Mission of the Government of India and jointly funded by the Government of Sikkim and intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document are issued.

2.2 Payment by GSCDL will be subject, in all respects, to the terms and conditions of the Agreement.

3. Fraud and Corruption

- 3.1. The GSCDL requires compliance with the GSCDL's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in Section VI.
- 3.2. In further pursuance of this policy, Bidders shall permit and shall cause their agents (where declared or not), subcontractors, sub consultants, service providers, suppliers, and personnel, to permit the GSCDL to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the GSCDL.

4. Eligible Bidders

- 4.1. A Bidder may be a firm that is a private entity, or a state-owned enterprise or institution — subject to ITB 4.6—or any combination of them in the form of a joint venture (JV), under an existing agreement, or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. Unless specified in the BDS, there is no limit on the number of members in a JV:
- 4.2. A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder.
 - (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
 - (b) receives or has received any direct or indirect subsidy from another Bidder; or
 - (c) has the same legal representative as another Bidder; or
 - (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this Bidding process; or
 - (e) or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or
 - (f) or any of its affiliates has been hired (or is proposed to be hired) by the Employer or GSCDL as Project Manager for the Contract implementation;
 - (g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project **specified in the BDS 2.1** that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
 - (h) has a close business or family relationship with a professional staff of the GSCDL (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the contract, and/or the Bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the GSCDL throughout the procurement process and execution of the contract.
- 4.3. A firm that is a Bidder (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a subcontractor in other Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member may participate as a subcontractor in more than one Bid.

- 4.4. A Bidder may only be of Indian Origin or is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of India, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub consultants for any part of the Contract including related Services.
- 4.5. A Bidder that has been sanctioned / debarred by the GSCDL, pursuant to the GSCDL's Anti-Corruption Guidelines, shall be ineligible to participate in the bid Government-owned enterprises in the Employer's country shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law, and that they are not a dependent agency of the Employer.
- 4.6. Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the GSCDL, that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Employer.
- 4.7. A Bidder shall not be under suspension from Bidding by the Employer as the result of the operation of a Bid-Securing or Proposal-Securing Declaration.
- 4.8. Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the GSCDL's country prohibits commercial relations with that country, provided that the GSCDL is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required.
- 4.9. Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.
- 4.10. A firm that is under a sanction of debarment by the GSCDL from being awarded a contract is eligible to participate in this procurement, unless the GSCDL, at the GSCDL's request, is satisfied that the debarment;
 - (a) relates to fraud or corruption; and
 - (b) followed a judicial or administrative proceeding that afforded the firm adequate due process

5. Eligible Materials, Equipment and Services

- 5.1. The materials, equipment and services to be supplied under the Contract and financed by the GSCDL may have their origin in any country subject to the restrictions specified in Section V, Eligible Countries, and all expenditures under the Contract will not contravene such restrictions. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.

B. Contents of Bidding Documents

6. Sections of Bidding Document

- 6.1. The bidding document consist of Parts I, II, and III, which include all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART I Bidding Procedures

- Section I - Instructions to Bidders (ITB)
- Section II - Bid Data Sheet (BDS)
- Section III - Evaluation and Qualification Criteria (EQC)
- Section IV - Bidding Forms (BDF)
- Section V- Eligible Countries
- Section VI – Fraud and Corruption
- Section VIA-Standard Specifications

PART II Works' Requirements

- Section VII – Work Requirements (WRQ)

PART III Conditions of Contract and Contract Forms

- Section VIII - General Conditions (GCC)
- Section IX - Particular Conditions (PCC)
- Section X - Contract Forms (COF)

- 6.2. The Specific Procurement Notice - Request for Bids (RFB) issued by the Employer is not part of this bidding document.
- 6.3. Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the bidding document, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail.
- 6.4. The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information and documentation as is required by the bidding document.

7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting:

- 7.1. A Bidder requiring any clarification of the bidding document shall contact the Employer in writing at the Employer's address **specified in the BDS** or raise its inquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period **specified in the BDS**. The Employer shall forward copies of its response to all Bidders who have acquired the bidding document in accordance with ITB 6.3, **including** a description of the inquiry but without identifying its source. If so **specified in the BDS**, the Employer shall also promptly publish its response at the web page **identified in the BDS**. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 8 and ITB 22.2.
- 7.2. The Bidder is advised to visit and examine the Site of works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
- 7.3. The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

- 7.4. If so **specified in the BDS**, the Bidder's designated representative is invited to attend a pre-Bid meeting and/or a Site of works visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5. The Bidder is requested, to submit any questions in writing, to reach the Employer not later than one week before the meeting.
- 7.6. Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the bidding document in accordance with ITB 6.3. If so specified in the BDS, the Employer shall also promptly publish the Minutes of the pre-Bid meeting at the web page identified in the BDS. Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the *Employer* exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-Bid meeting. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

- 8.1. At any time prior to the deadline for submission of Bids, the Employer may amend the bidding document by issuing addenda.
- 8.2. Any addendum issued shall be part of the bidding document and shall be communicated in writing to all who have obtained the bidding document from the Employer in accordance with ITB 6.3. The Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITB 7.1.
- 8.3. To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

C. Preparation of Bids

9. Cost of Bidding

- 9.1. The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

10. Language of Bid

- 10.1. The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be written in the language **specified in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language **specified in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern..

11. Documents Comprising the Bid

- 11.1. The Bid shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted simultaneously in two separate sealed envelopes (two-envelope Bidding process). One envelope shall contain only information relating to the Technical Part

and the other, only information relating to the Financial Part. These two envelopes shall be enclosed in a separate sealed outer envelope marked "Original Bid".

11.2. The **Technical Part** shall contain the following:

- (a) **Letter of Bid – Technical Part**, prepared in accordance with ITB 12;
- (b) **Bid Security** or **Bid-Securing Declaration**, in accordance with ITB 19.1;
- (c) **Alternative Bid - Technical Part**: if permissible in accordance with ITB 13, the Technical Part of any Alternative Bid;
- (d) **Authorization**: written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.3;
- (e) **Bidder's Eligibility**: documentary evidence in accordance with ITB 17.1 establishing the Bidder's eligibility to Bid;
- (f) **Qualifications**: documentary evidence in accordance with ITB 17.2 establishing the Bidder's qualifications to perform the Contract if its Bid is accepted;
- (g) **Conformity**: a technical proposal in accordance with ITB 16; and
- (h) any other document **required in the BDS**.

11.3. The **Financial Part** shall contain the following:

- (a) **Letter of Bid – Financial Part**, prepared in accordance with 12 and ITB 14;
- (b) **Bill of Quantities** or **Activity Schedule** completed in accordance with ITB 12 and ITB 14 as **specified in the BDS**;
- (c) **Alternative Bid - Financial Part**: if permissible in accordance with ITB 13, the Financial Part of any Alternative Bid; and
- (d) any other document **required in the BDS**

11.4. The Technical Part shall not include any information related to the Bid price. Where material financial information related to the Bid price is contained in the Technical Part the Bid shall be declared non-responsive.

11.5. In addition to the requirements under ITB 11.2, Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.

11.6. The Bidder shall furnish in the Letter of Bid – Financial Part information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

12. Letters of Bid, and Schedules

12.1. The Letter of Bid – Technical Part, Letter of Bid – Financial Part and Priced Activity Schedules or Bill of Quantities shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.3. All blank spaces shall be filled in with the information requested.

13. Alternative Bids

13.1. Unless otherwise **specified in the BDS**, alternative Bids shall not be considered.

13.2. When alternative times for completion are explicitly invited, a statement to that effect will be **included in the BDS**, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

- 13.3. Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the bidding document must first price the Employer's design as described in the bidding document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Bidder with the Most Advantageous Bid conforming to the basic technical requirements shall be considered by the Employer.
- 13.4. When specified in the BDS, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section VII, Works' Requirements. The method for their evaluation will be stipulated in Section III, Evaluation and Qualification Criteria.

14. Bid Prices and Discounts

- 14.1. The prices and discounts quoted by the Bidder in the Letter of Bid – Financial Part and in the Priced Activity Schedule or Bill of Quantities shall conform to the requirements specified below.
- 14.2. The Bidder shall submit a Bid for the whole of the Works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section IV, Bidding Forms. In case of admeasurement contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
- 14.3. The price to be quoted in the Letter of Bid – Financial Part, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.
- 14.4. The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid - Financial Part, in accordance with ITB 12.1.
- 14.5. Unless otherwise **provided in the BDS**, and the Conditions of Contract, the prices quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data in Section IV- Bidding Forms and the Employer may require the Bidder to justify its proposed indices and weightings
- 14.6. If so specified in ITB 1.1, Bids are invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer discounts for the award of more than one Contract shall specify in their Bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all lots (contracts) are opened at the same time.
- 14.7. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of Bids, shall be included in the rates and prices and the total Bid price submitted by the Bidder

15. Currencies of Bid and Payment

- 15.1. The currency(ies) of the Bid and the currency(ies) of payments shall be the same and shall be **as specified in the BDS**.

- 15.2. Bidders may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data are reasonable, in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders

16. Documents Establishing the Eligibility and Qualifications of the Bidder

- 16.1. The Bidder shall furnish a technical proposal in the Technical Part of the Bid including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work's requirements and the completion time.

17. Documents Establishing the Qualifications of the Bidder

- 17.1. To establish Bidder's eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid, – Technical Part, included in Section IV, Bidding Forms.
- 17.2. In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.
- 17.3. If a margin. of preference applies as specified in accordance with ITB 38.1, domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITB 38.1

18. Period of Validity of Bids

- 18.1. Bids shall remain valid until the date specified in the BDS or any extended date if amended by the Employer in accordance with ITB 8. A Bid that is not valid until the date specified in the BDS, or any extended date if amended by the Employer in accordance with ITB 8, shall be rejected by the Employer as nonresponsive.
- 18.2. In exceptional circumstances, prior to the date of expiry of the Bid validity, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 19, it shall also be extended for twenty-eight (28) days beyond the extended date for Bid validity. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 18.3.
- 18.3. If the award is delayed by a period exceeding fifty-six (56) days beyond the date of expiry of the Bid validity specified in accordance with ITB 18.1, the Contract price shall be determined as follows:
- (a) in the case of fixed price contracts, the Contract price shall be the Bid price adjusted by the factor **specified in the BDS**;
 - (b) in the case of adjustable price contracts, no adjustment shall be made; or
 - (c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

19. Bid Security

- 19.1. The Bidder shall furnish as part of its Technical Part of its Bid, a Bid Security as specified in the BDS, in original form and in the amount and currency **specified in the BDS**.

19.2. Deleted.

19.3. If a Bid Security is specified pursuant to ITB 19.1, the Bid Security shall be a demand draft as **specified in the BDS**, from a nationalized Bank. The Bid Security shall be valid for twenty-eight (28) days beyond the original date of expiry of the Bid validity, or beyond any extended date if requested under ITB 18.2.

19.4. If a Bid Security is specified pursuant to ITB 19.1, any Bid not accompanied by a substantially responsive Bid Security shall be rejected by the Employer as non-responsive.

19.5. If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB 50.

19.6. The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security.

19.7. The Bid Security may be forfeited:

- (a) if a Bidder withdraws its Bid prior to the expiry date of the Bid validity specified by the Bidder on the Letter of Bid – Technical Part and repeated in the Letter of Bid – Financial Part or any extension thereto provided by the Bidder; or
- (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 49; or
 - (ii) furnish a Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 50.

19.8. The Bid Security or the Bid-Securing Declaration of a JV shall be in the name of the JV that submits the Bid. If the JV has not been constituted into a legally enforceable JV, at the time of Bidding, the Bid Security or the Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent mentioned in ITB 4.1 and ITB 11.5.

19.9. If a Bid Security is not required in the BDS, pursuant to ITB 19.1, and:

- (a) if a Bidder withdraws its Bid prior to the expiry date of the Bid validity specified by the Bidder on the Letters of Bid or any extended date provided by the Bidder; or
- (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 49; or
 - (ii) furnish a Performance Security and if required in the BDS, the Environmental, and Social (ES) Performance Security in accordance with ITB 50 the GSCDL may, if provided for **in the BDS**, declare the Bidder ineligible to be awarded a contract by the Employer for a period of time as **stated in the BDS**

20. Format and Signing of Bid

20.1. The Bidder shall prepare the Bid, in accordance with this Instruction, ITB 11 and ITB 21.

20.2. Bidders shall mark as “Confidential” information in their Bids which is confidential to their business. This may include proprietary information, trade secrets or commercial or financially sensitive information.

20.3. The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as **specified in the BDS** and shall be attached to the bid. The

name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialed by the person signing the Bid.

20.4. In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

20.5. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. Submission and Opening of Bids

21. Sealing and Marking of Bids

21.1. The Bidder shall deliver the Bid in two separate, sealed envelopes (the Technical Part and the Financial Part.) These two envelopes shall be enclosed in a separate sealed outer envelope marked "Original Bid".

21.2. In addition, the Bidder shall submit copies of the Bid in the number **specified in the BDS**. Copies of the Technical Part shall be placed in a separate sealed envelope marked "Copies: Technical Part". Copies of the Financial Part shall be placed in a separate sealed envelope marked "Copies: Financial Part". The Bidder shall place both of these envelopes in a separate, sealed outer envelope marked "Bid Copies". In the event of any discrepancy between the original and the copies, the original shall prevail. If alternative Bids are permitted in accordance with ITB 13, the alternative Bids shall be submitted as follows: the original of the alternative Bid Technical Part shall be placed in a sealed envelope marked "Alternative Bid – Technical Part" and the Financial Part shall be placed in a sealed envelope marked "Alternative Bid – Financial Part" and these two separate sealed envelopes then enclosed within a sealed outer envelope marked "Alternative Bid – Original", the copies of the alternative Bid will be placed in separate sealed envelopes marked "Alternative Bid – Copies Of Technical Part", and "Alternative Bid – Copies Of Financial Part" and enclosed in a separate sealed outer envelope marked "Alternative Bid - Copies"

21.3. The envelopes marked "ORIGINAL BID" and "BID COPIES" (and, if appropriate, a third envelope marked "ALTERNATIVE BID") shall be enclosed in a separate sealed outer envelope for submission to the Employer.

21.4. The inner and outer envelopes shall:

- (a) bear the name and address of the Bidder;
- (b) be addressed to the Employer in accordance with ITB 22.1;
- (c) bear the specific identification of this Bidding process indicated in ITB 1.1; and
- (d) bear a warning not to open before the time and date for Bid opening

21.5. If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

22. Deadline for Submission of Bids

22.1. Bids must be received by the Employer at the address and no later than the date and time specified in the BDS. When so specified in the BDS, Bidders shall have the option of submitting their Bids electronically. Bidders submitting Bids electronically shall follow the electronic Bid submission procedures specified in the BDS.

22.2. The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the bidding document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

23.1. The Employer shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 22. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

24.1. A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be:

- (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “Withdrawal,” “Substitution,” “Modification;” and
- (b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 22.

24.2. Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.

24.3. No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the date of expiry of the Bid validity specified by the Bidder on the Letter of Bid or any extended date thereof.

E. Public Opening of Technical Parts of Bids

25. Public Opening of Technical Parts of Bids

25.1. Except in the cases specified in ITB 23 and ITB 24.2, the Employer shall publicly open and read out all Bids received by the deadline, at the date, time and place **specified in the BDS**, in the presence of Bidders` designated representatives and anyone who chooses to attend. All Bidders, or their representatives and any interested party may attend a public opening. Any specific electronic Bid opening procedures required if electronic bidding is permitted in accordance with ITB 22.1, shall be as **specified in the BDS**.

25.2. First, the written notice of withdrawal in the envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. No Bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Bid opening.

25.3. Next, envelopes marked “Substitution” shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Bid opening

- 25.4. Next, envelopes marked “Modification” shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening.
- 25.5. Next, all other envelopes marked “Technical Part” shall be opened one at a time. All envelopes marked “Second Envelope: Financial Part” shall remain sealed, and kept by the Employer in safe custody until they are opened, at a later public opening, following the evaluation of the Technical Part parts of the Bids. On opening the envelopes marked “Technical Part” the Employer shall read out: the name of the Bidder, the presence or the absence of a Bid Security, or Bid-Securing Declaration, if required, and whether there is a modification; and Alternative Bid - Technical Part; and any other details as the Employer may consider appropriate.
- 25.6. Only Technical Parts of Bids and Alternative Bid - Technical Parts that are read out at Bid opening shall be considered further for evaluation. The Letter of Bid- Technical Part and the separate sealed envelope marked “Second Envelope: Financial Part” are to be initialed by representatives of the Employer attending Bid opening in the manner **specified in the BDS**.
- 25.7. At the Bid opening the Employer shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with ITB 23.1).
- 25.8. The Employer shall prepare a record of the Technical Parts of Bid opening that shall include, as a minimum:
- (a) the name of the Bidder and whether there is a withdrawal, substitution, or modification;
 - (b) the receipt of envelopes marked “Second Envelope: Financial Part”;
 - (c) the presence or absence of a Bid Security or Bid-Securing Declaration, if one was required; and
 - (d) if applicable, any Alternative Bid – Technical Part.
- 25.9. The Bidders’ representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

F. Evaluation and Comparison of Bids

26. Confidentiality

- 26.1. Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 44.
- 26.2. Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its Bid.
- 26.3. Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing.

27. Clarification of Bids

- 27.1. To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid given a reasonable time for a response. Any clarification submitted by a Bidder that is not in response

to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 36.

27.2. If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.

28. Deviations, Reservations, and Omissions

28.1. During the evaluation of Bids, the following definitions apply:

- (a) "Deviation" is a departure from the requirements specified in the bidding document;
- (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
- (c) "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.

29. Nonconformities, Errors, and Omissions

29.1. Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid.

29.2. Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

29.3. Provided that a Bid is substantially responsive pursuant to ITB 31, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid price. To this effect, the Bid Price shall be adjusted, for comparison purposes only to reflect the price of a missing or non-conforming item or component, by adding the average price of the item or component quoted by substantially responsive Bidders. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate

G. Evaluation of Technical Parts of Bids

30. Evaluation of Technical Parts

30.1. In evaluating the Technical Parts of each Bid, the Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted

31. Determination of Responsiveness

31.1. The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB11.

31.2. A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

- (a) if accepted, would:
 - (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
 - (ii) limit in any substantial way, inconsistent with the bidding document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
- (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.

31.3. The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, in particular, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission

31.4. If a Bid is not substantially responsive to the requirements of the bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

32. Qualification of the Bidder

32.1. The Employer shall determine to its satisfaction whether the eligible Bidders that have submitted substantially responsive Bid- Technical Parts meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

32.2. The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17. The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the bidding document), or any other firm different from the Bidder

32.3. If a Bidder does not meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria, its Bid shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission

32.4. Only Bids that are both substantially responsive to the bidding document, and meet all Qualification Criteria shall have their envelopes marked "Second Envelope: Financial Part" opened at the second public opening.

33. Subcontractors

33.1. Unless otherwise stated in the BDS, the Employer does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Employer.

33.2. The subcontractor's qualifications shall not be used by the Bidder to qualify for the Works unless their specialized parts of the Works were previously designated by the Employer in the BDS as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Bidder may be added to the qualifications.

33.3. Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the BDS. Subcontractors proposed by the Bidder shall be fully qualified for their parts of the Works.

H. Public Opening of Financial Parts of Bids

34. Public Opening of Financial Parts

- 34.1. Following the completion of the evaluation of the Technical Parts of the Bids, and the GSCDL has issued its no objection (if applicable), the Employer shall notify in writing those Bidders whose Bids were considered non-responsive to the bidding document or failed to meet the Qualification Criteria, advising them of the following information:
- (a) the grounds on which their Technical Part of Bid failed to meet the requirements of the bidding document;
 - (b) their envelopes marked “Second Envelope: Financial Part” will be returned to them unopened after the completion of the selection process and the signing of the Contract; and
 - (c) notify them of the date, time and location of the public opening of the envelopes marked “Second Envelope: Financial Part”.
- 34.2. The Employer shall, simultaneously, notify in writing those Bidders whose Technical Part have been evaluated as substantially responsive to the bidding document and met all Qualifying Criteria, advising them of the following information:
- (a) their Bid has been evaluated as substantially responsive to the bidding document and met the Qualification Criteria;
 - (b) their envelope marked “Second Envelope: Financial Part” will be opened at the public opening of the Financial Parts; and
 - (c) notify them of the date, time and location of the second public opening of the envelopes marked “Second Envelope: Financial Part” as **specified in the BDS**
- 34.3. The opening date should allow Bidders sufficient time to make arrangements for attending the opening. The Financial Part of the Bid shall be opened publicly in the presence of Bidders’ designated representatives and anyone who chooses to attend.
- 34.4. At this public opening the Financial Parts will be opened by the Employer in the presence of Bidders, or their designated representatives and anyone else who chooses to attend. Bidders who met the Qualification Criteria and whose bids were evaluated as substantially responsive will have their envelopes marked “Second Envelope: Financial Part” opened at the second public opening. Each of these envelopes marked “Second Envelope: Financial Part” shall be inspected to confirm that they have remained sealed and unopened. These envelopes shall then be opened by the Employer. The Employer shall read out the names of each Bidder, and the total Bid prices, per lot (contract) if applicable, including any discounts and Alternative Bid - Financial Part, and any other details as the Employer may consider appropriate
- 34.5. Only envelopes of Financial Part of Bids, Financial Parts of Alternative Bids and discounts that are opened and read out at Bid opening shall be considered further for evaluation. The Letter of Bid – Financial Part and the Priced Activity Schedules are to be initialed by a representative of the Employer attending the Bid opening in the manner **specified in the BDS**.
- 34.6. The Employer shall neither discuss the merits of any Bid nor reject any envelopes marked “Second Envelope: Financial Part”.
- 34.7. The Employer shall prepare a record of the Financial Part of the Bid opening that shall include, as a minimum:
- (a) the name of the Bidder whose Financial Part was opened;
 - (b) the Bid price, per lot (contract) if applicable, including any discounts; and
 - (c) if applicable, any Alternative Bid – Financial Part.
- 34.8. The Bidders whose envelopes marked “Second Envelope: Financial Part” have been opened or their representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

I. Evaluation of Financial Parts of Bids

35. Evaluation of Financial Parts

35.1. To evaluate the Financial Part, the Employer shall consider the following

- (a) the Bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities for admeasurement contracts, but including Daywork items, where priced competitively
- (b) price adjustment for correction of arithmetic errors in accordance with ITB 36.1
- (c) price adjustment due to discounts offered in accordance with ITB 14.4
- (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 37
- (e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 29.3;and
- (f) the additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria

35.2. The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.

35.3. If this bidding document allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated cost of the contract combinations, including any discounts offered in the Letter of Bid – Financial Part, is specified in Section III, Evaluation and Qualification Criteria

36. Correction of Arithmetical Errors

36.1. In evaluating the Financial Part of each Bid, the Employer shall correct arithmetical errors on the following basis:

- (a) only for admeasurement contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

36.2. Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 36.1, shall result in the rejection of the Bid.

37. Conversion to Single Currency

37.1. For evaluation and comparison purposes, the currency(ies) of the Bids shall be converted in a single currency as **specified in the BDS**.

38. Margin of Preference

38.1. Unless otherwise **specified in the BDS**, a margin of preference for domestic Bidders shall not apply.

39. Comparison of Financial Parts

39.1. The Employer shall compare the evaluated costs of all responsive and qualified Bids to determine the Bid that has the lowest evaluated cost.

40. . Abnormally Low Bids

40.1. An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid price

40.2. In the event of identification of a potentially Abnormally Low Bid, the Employer shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in correlation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.

40.3. After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to deliver the contract for the offered tender price, the Employer shall reject the Bid.

41. Unbalanced or Front Loaded Bids

41.1. If the Bid for an admeasurement contract, which results in the lowest evaluated cost, in the Employer's opinion, seriously unbalanced or front loaded the Employer may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Bid prices with the scope of works, proposed methodology, schedule and any other requirements of the bidding document.

41.2. After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may as appropriate:

- (a) accept the Bid; or
- (b) require that the amount of the performance security be increased at the expense of the Bidder to a level not exceeding 20% of the Contract price; or
- (c) reject the Bid

42. Most Advantageous Bid

42.1. Having compared the evaluated costs of Bids, the Employer shall determine the Most Advantageous Bid. The Most Advantageous Bid is the Bid of the Bidder that meets the Qualification Criteria and whose Bid has been determined to be:

- (a) substantially responsive to the bidding document; and
- (b) the lowest evaluated cost.

43. Employer's Right to Accept Any Bid, and to Reject Any or All Bids

43.1. The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, Bid Securities, shall be promptly returned to the Bidders

44. Standstill Period

44.1. The Contract shall not apply

45. Notification of Intention to Award

45.1. The Employer shall send to each Bidder (that has not already been notified that it has been unsuccessful) the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:

- (a) the name and address of the Bidder submitting the successful Bid;
- (b) the Contract price of the successful Bid;
- (c) the names of all Bidders who submitted Bids, and their Bid prices as readout, and as evaluated;
- (d) a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the notification is addressed) was unsuccessful, unless the price information in c) above already reveals the reason;
- (e) deleted
- (f) instructions on how to request a debriefing and/or submit a complaint.

J. Award of Contract

46. Award Criteria

46.1. Subject to ITB 43, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid as specified in ITB 42

47. Notification of Award

47.1. Prior to the expiration of the Bid validity the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification of award (hereinafter and in the Conditions of Contract and Contract Forms called the “Letter of Acceptance”) shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the contract (hereinafter, and in the Conditions of Contract and Contract Forms, called “the Contract Price”).

47.2. Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:

- (a) name and address of the Employer;
- (b) name and reference number of the contract being awarded, and the selection method used;
- (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;
- (d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor;
- (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope; and
- (f) successful Bidder’s Beneficial Ownership Disclosure Form, if specified in BDS ITB 49.1

47.3. The Contract Award Notice shall be published on the Employer’s website with free access if available, or in at least one newspaper of national circulation in the Employer’s country, or in the official gazette. The Employer shall also publish the contract award notice in UNDB online.

47.4. Until a formal Contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.

48. Debriefing by the Employer

48.1. On receipt of the Employer's Notification of Intention to Award referred to in ITB 45.1, an unsuccessful Bidder has three (3) Business Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline

48.2. Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) Business Days, unless the Employer decides, for justifiable reasons, to provide the debriefing outside this timeframe

48.3. Where a request for debriefing is received by the Employer later than the three (3)-Business Day deadline, the Employer should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of Public Notice of Award of contract

48.4. Debriefings of unsuccessful Bidders may be done in writing or verbally. The Bidder shall bear their own costs of attending such a debriefing meeting.

49. Signing of Contract

49.1. The Employer shall send to the successful Bidder the Letter of Acceptance including the Contract Agreement, and, if specified in the BDS, a request to submit the Beneficial Ownership Disclosure Form providing additional information on its beneficial ownership. The Beneficial Ownership Disclosure Form, if so requested, shall be submitted within eight (8) Business Days of receiving this request.

49.2. The successful Bidder shall sign, date and return to the Employer, the Contract Agreement within twenty-eight (28) days of its receipt.

50. Performance Security

50.1. Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with the General Conditions of Contract, subject to ITB 41.2 (b), using for that purpose the Performance Security and ES Performance Security Forms included in Section X, Contract Forms, or another form acceptable to the Employer. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Employer. A foreign institution providing a bond shall have a correspondent financial institution located in the Employer's Country, unless the Employer has agreed in writing that a correspondent financial institution is not required.

50.2. Failure of the successful Bidder to submit the above-mentioned Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security, or to sign the Contract Agreement shall constitute sufficient *grounds* for the annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the Bidder offering the next Most Advantageous Bid.

51. Adjudicator

51.1. The Employer proposes the person named in the BDS to be appointed as Adjudicator under the Contract, at the hourly fee specified in the BDS, plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the Particular Conditions of Contract (PCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

52. Procurement Related Complaint

52.1. The procedures for making a Procurement-related Complaint are as specified in the BDS.

Section II - BID DATA SHEET (BDS)

The following specific data for the Works to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

A. General

ITB 1.1	<p>The reference number of the Request for Bids (RFB) is: 012/GSCDL/2022</p> <p>The Employer is: Gangtok Smart City Development Limited</p> <p>The name of the RFB is: “Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)”</p>
ITB 1.1	The number and identification of this RFB is: SIK-GAN-027
ITB 1.2(a)	N.A.
ITB 2.1	<p>The GSCDL is Gangtok Smart City Development Ltd.</p> <p>Financing Agreement amount: Rs 1000 crore.</p> <p>The name of the Project is: Smart City Mission,</p> <p>Funded by the Ministry of Housing and Urban Affairs, Government of India and the Urban Development Department, Government of Sikkim</p>
ITB 4.1	Maximum number of members in the JV shall be: Three
ITB 4.5	Deleted

B. Contents of Bidding Documents

ITB 7.1	<p>For <u>Clarification of Bid purposes</u> only, the Employer’s address is:</p> <p>Attention: Mr. Bhupendra Kothari, Chief Executive Officer</p> <p>Postal Address: Gangtok Smart City Development Limited, Level V, Kissan Bazar, Gangtok, East Sikkim.</p> <p>City: Gangtok, Pin Code:737101, India</p> <p>Phone Number: 8116679989</p> <p>Electronic mail address: ctosmartcity.gangtok@gmail.com</p>
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	Requests for clarification should be received by the Employer no later than seven days. Website: http://smartcitygangtok.com/ & www.smartnet.niua.org
ITB 7.4	A Pre-Bid meeting “ shall ” take place at the following date, time and place: Date: N.A Place: Gangtok Smart City Development Limited, Level V, Kissan Bazar, Gangtok, East Sikkim A site visit conducted by the Employer “ shall not be ” organized
ITB 7.6	Web page: http://smartcitygangtok.com/

C. Preparation of Bids

ITB 10.1	The language of the Bid is: “ English ” All correspondence exchange shall be in English language. Language for translation of supporting documents and printed literature is English
ITB 11.2(h)	The Bidder shall submit the following additional documents in its Bid: N.A.
ITB 11.3(b)	The following additional schedules shall be submitted with the Bid: None apart from what is already indicated in Bidding Document.
ITB 11.3(d)	The Bidder shall submit the following additional documents in its Bid: None apart from what is already indicated in the Bidding Document.
ITB 13.1	Alternative Bids “ shall not be ” considered.
ITB 13.2	Alternative times for completion “ shall not be ” permitted.
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: Not Applicable.
ITB 14.5	The prices quoted by the Bidder “ shall not be ” subject to adjustment during the performance of the Contract.
ITB 15.1	The price shall be quoted by the Bidder in: Indian Rupees INR
ITB 18.1	The Bid shall be valid until 180 days.
ITB 18.3 (a)	The Bid price shall be adjusted by the following factor(s): Not Applicable (NA)

ITB 19.1	<p>Bid Security shall be required, a Bid-Securing Declaration shall not be required.</p> <p>A Bid Security “shall be” required.</p> <p>A Bid-Securing Declaration “shall not be” required.</p> <p>The Bid Security shall be required, the amount and currency of the Bid Security shall be Rs. 12, 10,000/- (Rupees Twelve Lakh Ten Thousand only).</p>
ITB 19.3(d)	Only Demand Draft drawn in favour of Gangtok Smart City Development Ltd, payable at Gangtok and issued by a Nationalized Bank.
ITB 19.9	not applicable
ITB 20.3	The written confirmation of authorization to sign on behalf of the Bidder shall consist of Power of Attorney.

D. Submission of Bids

ITB 21.2	In addition to the original of the Bid, the number of copies is: One (Total Two)
ITB 22.1	<p>For Bid submission purposes only, the Employer’s address is: Gangtok Smart City Development Limited, Level V, Kissan Bazar</p> <p>Attention: Chief Executive Officer, GSCDL, Gangtok.</p> <p>The deadline for Bid submission is:</p> <p>Date: 24th March 2022</p> <p>Time: 1500 hrs</p> <p>Bidders shall not have the option of submitting their Bids electronically.</p>

E. Public Opening of Technical Parts of Bids

ITB 25.1	<p>The Bid opening shall take place at:</p> <p>City: Gangtok, Sikkim, India</p> <p>Date: 25th March 2022</p> <p>Time: 1100 hrs</p>
ITB 25.1	Omitted

ITB 25.6	The Letter of Bid – Technical Part and the sealed envelope marked “Second Envelope: Financial Part” shall be initialed b three representatives of the Employer conducting Bid opening.
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F. Evaluation of Bids – General Provisions

G. Evaluation of Bids - Technical Parts

ITB 33.1	At this time the Employer does not intend to execute certain specific parts of the Works by subcontractors selected in advance.
ITB 33.2	not applicable
ITB 33.3	Contractor’s proposed subcontracting: Maximum percentage of subcontracting permitted is Nil_% of the total contract amount or Nil % of the volume of work.

H. Public Opening of Financial Parts

ITB 34.2 (c)	Following the completion of the evaluation of the Technical Parts of the Bids, the Employer will notify all Bidders of the location, date and time of the public opening of Financial Parts. Any interested party who wishes to attend this public opening may contact Mr. Binay Lama, Divisional Engineer, Gangtok Smart City Dev. Ltd. e-mail:- degscdl@gmail.com and request to be notified of the location, date and time of the public opening of Financial Parts. The request should be made before the deadline for submission of Bids, stated above.
ITB 34.5	The Letter of Bid – Financial Part and Schedules shall be initialed by three representatives of the Employer conducting Bid opening.

I. Evaluation of Bids - Financial Parts

ITB 37.1	The currency that shall be used for Bid evaluation shall be in Indian Rupees. No other currency shall be admissible.
ITB 38.1	A margin of domestic preference “ shall not ” apply.

J. Evaluation of Bids - Financial Parts

ITB 49.1	The successful Bidder shall not submit the Beneficial Ownership Disclosure Form.
ITB 50.1 and 50.2	The successful Bidder shall not be required to submit an Environmental and Social (ES) Performance Security.
ITB 51 Adjudicator	The Adjudicator proposed by the Employer is The Chief Engineer Urban Development Department, Govt. of Sikkim.

<p>ITB 52.1</p>	<p>If a Bidder wishes to make a Procurement-related Complaint, the Bidder shall submit its complaint following these procedures, In Writing to:</p> <p>For the attention: Mr. Bhupendra Kothari</p> <p>Title/position: Chief Executive Officer</p> <p>Employer: Gangtok Smart City Development Limited</p> <p>Email address: ceosmartcity.gangtok@gmail.com</p> <p>In summary, a Procurement-related Complaint may challenge any of the following:</p> <ol style="list-style-type: none">1. the terms of the Bidding Documents;2. the Employer’s decision to exclude a Bidder from the procurement process prior to the award of contract; and3. the Employer’s decision to award the contract.
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Section III - EVALUATION AND QUALIFICATION CRITERIA

This section contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders when qualification in the evaluation of the Technical Part is applied. No other factors, methods or criteria shall be used other than those specified in this bidding document. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms

1. Technical Part

1.1. Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VII, Works' Requirements).

1.2. Alternative Technical Solutions for specified parts of Works

The acceptability of technical alternatives for parts of the Works, if permitted under ITB 13.4, will be determined as follows:

Not Applicable

1.3. Specialized Subcontractors

If permitted under ITB 33, only the specific experience of Subcontractors for specialized works permitted by the Employer will be considered. The general experience and financial resources of the Specialized Subcontractors shall not be added to those of the Bidder for purposes of qualification of the Bidder.

Not Applicable

1.4. Qualification Criteria

Pursuant to ITB 32.1, the Employer shall assess each Bid against the following Qualification Criteria. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
1. Eligibility							
1.1	Nationality	Nationality in accordance with ITB 4.4	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid and Forms ELI – 1.1 and 1.2, with attachments
1.2	Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.3	Debarment	Not having been declared ineligible by the GSCDL, as described in ITB 4.5.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.4	State-owned enterprise or institution of the GSCDL country	Meets conditions of ITB 4.6	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
2. Legality / Non-Performance							

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
2.1	History of Non-Performing Contracts / Legality	Non-performance of a contract or not legally entitled.	Must meet requirement	Must meet requirements	Must meet requirement	N/A	Letter of Bid

3. Key Personnel

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

No.	Position/ specialization	Relevant academic qualifications	Minimum years of relevant work experience	Nos.
1	Civil Engineer	B.E./ Diploma in Civil	5 years' experience in relevant field	1 no.
2	Site supervisors	B.E./ Diploma in Civil	Diploma in Civil Engineer with 2 years' experience in relevant field; or B.E. Civil Engineering with 1 years' experience in relevant field	1 no.

4. Equipment

The Bidder must demonstrate that it has access to the key equipment listed hereafter:

[Specify requirements for each lot as applicable]

No.	Equipment Type and Characteristics	Min. Number Required
1	Excavator	1
2	Jack hammer/ breaker	4
3	Truck/ Tippers	4
4	Concrete Mixer Machine	1
5	Needle Vibrator 5 HP / 2 HP with nozzles 60 /40/20 / as required	4
6	Surface Vibrator	2
7	Laboratory for testing fineness, consistency, setting time compressive & tensile strength of cement compressive & flexural strength of Cement concrete and proof stress, elongation, tensile strength, bending & re-bending of reinforcement steel. Fully equipped field level laboratory for testing of general materials located at project site or at authority approved nearby place.	1

The Bidder shall provide further details of proposed items of equipment using Form EQU in Section IV, Bidding Forms

5. Multiple Contracts: NA

2. Financial Part

2.1 Margin of Preference

The Employer will not grant a margin of preference.

2.2 Multiple Contracts

Pursuant to ITB 35.3, if Works are grouped in multiple contracts, evaluation will be as follows:

Award Criteria for Multiple Contracts:

Lots

Bidders have the option to Bid for any one or more lots. Bids will be evaluated lot-wise, taking into account discounts offered, if any, after considering all possible combination of lots. The contract(s) will be awarded to the Bidder or Bidders offering the lowest evaluated cost to the Employer for combined lots, subject to the selected Bidder(s) meeting the required qualification criteria for lot or combination of lots as the case may be.

Packages

Bidders have the option to Bid for any one or more packages and for any one or more lots within a package. Bids will be evaluated package-wise, taking into account discounts offered, if any, for combined packages and/or lots within a package. The contract(s) will be awarded to the Bidder or Bidders offering the lowest evaluated cost to the Employer for combined packages, subject to the selected Bidder(s) meeting the required qualification criteria for combination of packages and or lots as the case may be.

2.3 Sustainable procurement

As specified and under the law of the land

2.4 Alternative Completion Time

An alternative Completion Time, if permitted under ITB 13.2, will be evaluated as follows:

Not Applicable

2.5 Alternative Technical Solutions for specified parts of the Works

If the alternative technical solutions of parts of the Works, if permitted under ITB 13.4, were accepted in the evaluation of the Technical Part, the Financial Part of the Bid shall be evaluated as follows:

Not Applicable

2.6 Other criteria

If permitted under ITB 35.1(f):

N.A.

Section IV - BIDDING FORMS

Letter of Bid - Technical Part

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Note: All italicized text is to help Bidders in preparing this form.

Date of this Bid submission: [insert date (as day, month and year) of Bid submission]

RFB No: 012/GSCDL/2022, Project identification No: SIK-GAN-027.

To: The CEO, Gangtok Smart City Development Ltd.

We, the undersigned, hereby submit our Bid, in two parts, namely:

- (a) the Technical Part, and
- (b) the Financial Part

In submitting our Bid, we make the following declarations:

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with Instructions to Bidders (ITB 8);
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4; Further I am a citizen of India / our JV-Company is registered in India and legally entitled to take part in the bidding process;
- (c) **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration or Proposal-Securing Declaration in the Employer's country in accordance with ITB 4.7;
- (d) **Conformity:** We offer to execute in conformity with the bidding document the following Works "Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)",
- (e) **Bid Validity:** Our Bid shall be valid until [insert day, month and year in accordance with ITB 18.1], and it shall remain binding upon us and may be accepted at any time on or before this date;
- (f) **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security in accordance with the bidding document;
- (g) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder or as a subcontractor, and we are not participating in any other Bid(s) as a Joint Venture member, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;
- (h) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not under temporary suspension or a debarment imposed by the GSCDL or the National or State Government;
- (i) **State-owned enterprise or institution:**[select the appropriate option and delete the other] [We are not a state-owned enterprise or institution] / [We are a state-owned enterprise or institution but meet the requirements of ITB 4.6];

PART I: BIDDING PROCEDURES

- (j) **Binding Contract:** We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (k) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive; and
- (l) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption;
- (m) **Adjudicator:** We accept the appointment of the Chief Engineer UDD, Govt of Sikkim, as the Adjudicator.
- (n) **GSTIN:**(certificate copy enclosed)
- (o) **PAN:**(Card copy enclosed)
- (p) **CIN:**(copy enclosed in case of Companies only)
- (q) **Registration Certificate/ Enlistment Certificate:** Issued by the Authority to practice/trade/work as contractor. Copy to be enclosed
- (r) **Mobile No:**..... (not to be changed during the contract period or to inform the project manager if it is being changed)
- (s) **Email address:**.....
- (t) **Bank Account Number:**....., Branch
.....
(IFSC Code.....)

Name of the Bidder: *[insert complete name of the Bidder]

Name of the person duly authorized to sign the Bid on behalf of the Bidder: ** [insert complete name of person duly authorized to sign the Bid]

Title of the person signing the Bid: [insert complete title of the person signing the Bid]

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date signed [insert date of signing] **day of** [insert month], [insert year]

Date signed _____ day of _____, _____

*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

** : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid

Appendix A to Technical Part: Technical Proposal

Code of Conduct for Contractor's Personnel (ES) Form

The Bidder shall initial and submit the Code of Conduct form as part of its bid.

We are the Contractor, [enter name of Contractor]. We have signed a contract with [enter name of Employer] for [enter description of the Works]. These Works will be carried out at [enter the Site and other locations where the Works will be carried out]. Our contract requires us to implement measures to address environmental and social risks related to the Works, including the risks of sexual exploitation, sexual abuse and sexual harassment.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the Works. It applies to all our staff, laborers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as "Contractor's Personnel" and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor's Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
 - (a) ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
 - (b) wearing required personal protective equipment;
 - (c) using appropriate measures relating to chemical, physical and biological substances and agents; and
 - (d) following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;

- 9.** not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
- 10.** complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Abuse (SEA) and Sexual Harassment (SH);
- 11.** report violations of this Code of Conduct; and
- 12.** not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor’s Personnel or the project’s Grievance Redress Mechanism.

RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done by reporting to the Contractors Engineer or Project Manager GSCDL.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor’s Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

Name of Bidder/Contractor: [insert name]

Signature: _____

Date: (day month year): _____

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM

BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)

The following non-exhaustive list is intended to illustrate types of prohibited behaviors:

1. Examples of sexual exploitation and abuse include, but are not limited to:

- A Contractor's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- A Contractor's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favor.
- A Contractor's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

2. Examples of sexual harassment in a work context

- Contractor's Personnel comment on the appearance of another Contractor's Personnel (either positive or negative) and sexual desirability.
- When a Contractor's Personnel complains about comments made by another Contractor's Personnel on his/her appearance, the other Contractor's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Contractor's or Employer's Personnel by another Contractor's Personnel.
- A Contractor's Personnel tells another Contractor's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

Appendix B to Technical Part: Equipment

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section III (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

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 (a) <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

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 (b) <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

(Note Add Table for more equipments)

Appendix C to Technical Part: Key Personnel

A. Form PER – 1: Key Personnel

Bidders should provide the names and details of the suitably qualified Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Key Personnel

1.	Title of position:	
	Name of candidate:	
	Duration of appointment:	[insert the whole period (start and end dates) for which this position will be engaged]
	Time commitment for this position:	[insert the number of days/week/months/ that has been scheduled for this position]
	Expected time schedule for this position:	[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]

B. Form PER – 2: Resume and Declaration

Key Personnel

(Bidder to submit for personnel)

Name of Bidder

Position [#1]: [title of position from Form PER-1]		
Personnel information	Name	Date of birth
	Address:	E-mail:
	Professional qualifications	
	Academic qualifications:	
	Language proficiency: [language and levels of speaking, reading and writing skills]	
	Address of employer	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present employer:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement
[main project details]	[role and responsibilities on the project]	[time in role]

Declaration

I, the undersigned Key Personnel, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	Details
Commitment to duration of contract:	[insert period (start and end dates) for which this Key Personnel is available to work on this contract]
Time commitment:	[insert the number of days/week/months/ that this Key Personnel will be engaged]

I understand that any misrepresentation or omission in this Form may:

- (a) be taken into consideration during Bid evaluation;
- (b) my disqualification from participating in the Bid;
- (c) my dismissal from the contract.

Name of Key Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day month year): _____

Appendix D to Technical Part: Bidder's Qualification

To establish its qualifications to perform the contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder

C. Form ELI -1.1

Bidder Information Form	
	Date: _____
	RFB No. and title: _____
	Page _____ of _____ pages
Bidder's name	
In case of Joint Venture (JV), name of each member:	
Bidder's actual or intended country of registration: [indicate country of Constitution]	
Bidder's actual or intended year of incorporation:	
Bidder's legal address [in country of registration]:	
Bidder's authorized representative information	
Name: _____	
Address: _____	
Telephone/Fax numbers: _____	
E-mail address: _____	
<p>1. Attached are copies of original documents of</p> <ul style="list-style-type: none"> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing: <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not under the supervision of the Employer <p>2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. [If required under BDS ITB 49.1, the successful Bidder shall provide additional information on beneficial ownership, using the Beneficial Ownership Disclosure Form.]</p>	

D. Form ELI -1.2

**Bidder's JV Information Form
(to be completed for each member of Bidder's JV)**

Date: _____

RFB No. and title: _____

Page _____ of _____ pages

Bidder's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Employer, in accordance with ITB 4.6. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. [If required under BDS ITB 49.1, the successful Bidder shall provide additional information on beneficial ownership for each JV member using the Beneficial Ownership Disclosure Form.]

E. Bidder’s Declaration on Affidavit

Date:

Bid No.:.....

Invitation for Bid No.:.....

To:

CEO

GSCDL, Level 5, Kissan Bazaar, Gangtok.

We, the undersigned, declare that:

1. We have seen the Section VI A: Standard Specifications and we have studied and understood all the Clauses of this Section. We accordingly offer to design (if any), execute and complete the said Works and remedy any defects therein, fit for purpose in conformity with the relevant Clauses of this Section.

2. We further undertake to accept that these form a part of our bid and we agree to sign these at the time when the contract agreement is executed.

Dated this _____ day of _____ 20____.

Signed and Sealed by: _____

In the Capacity of: _____

Name and Address of Bidder: _____

(Affix company seal)

Letter of Bid -Financial Part

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Note: All italicized text in black font is to help Bidders in preparing this form.

Date of this Bid submission: [insert date (as day, month and year) of Bid submission]

Request for Bid No.: [insert identification]

To: The CEO, Gangtok Smart City Development Ltd.

We, the undersigned, hereby submit the second part of our Bid, the Bid Price and Bill of Quantities. This accompanies the Letter of Technical Part.

In submitting our Bid, we make the following additional declarations:

- (a) **Bid Validity:** Our Bid shall be valid until [insert day, month and year in accordance with ITB 18.1], and it shall remain binding upon us and may be accepted at any time on or before this date;
- (b) **Total Price:** The total price of our Bid, is as below:
 - (i) Basic Cost as per BOQ : Rs.....
 - (ii) Add GST 18% : Rs.....
 - (iii) Add Labour Cess 1% : Rs
 - (iv) Total Bid Price : Rs.....

Name of the Bidder:*[insert complete name of the Bidder]

Name of the person duly authorized to sign the Bid on behalf of the Bidder: ** [insert complete name of person duly authorized to sign the Bid]

Title of the person signing the Bid: [insert complete title of the person signing the Bid]

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date signed [insert date of signing] **day of** [insert month], [insert year]

*: In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder.

**: Person signing the Bid shall have the power of attorney given by the Bidder. The power of attorney shall be attached with the Bid Schedules

Appendix A to Financial Part: Schedules

A. Dayworks /Provisional Sums and Bill of Quantities

Daywork Schedule /Provisional Sums/Lumpsum

For Daywork Schedule or Lump Sum Provisions, in order to calculate the cost the Project Manager shall quantify the consumption of men/materials and incidentals. The rates for calculating the costs shall be (to be filled in by the bidder)

Sl	Item	Unit	Rate in Rupees i/c Tax and Cess
1	Ordinary Labour	Manday	
2	Skilled Labour	Manday	
3	Highly Skilled Labour	Manday	
4	Sand	Per cum	
5	Stone Chips 20 mm down	Per cum	
6	Stone 150 mm	Per cum	
7	Hire charge of Tipper Truck upto first 15 km radius	per trip	
8	Every additional 5 km	Per 5 km	
9	For manufactured items, the MRP shall be adopted	Contractor shall submit the proof, on demand by the Project Manager	

The basic cost of the work shall be calculated using the above rates. The Project Manager shall add 30% for handling, incidentals and contractors profit on the above cost for making the payment. In case the activity/item cannot be measured, the Project Manager or his delegated authority shall certify that the work is not susceptible to measurement and propose a lumpsum amount for payment for that specific activity/item.

B. BILL OF QUANTITIES**1. BOQ FOR SITE LEVELING AND PROTECTIVE WORKS FOR THE CONSTRUCTION OF PUBLIC TOILET BELOW LAL BAZAR AT RANIPOOL, GANGTOK.**

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	71.40	Sqm		
2	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	116.89	cum		
3	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	87.48	cum		
4	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	10.935	cum		
5	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	7.29	cum		
6	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	194.4	cum		
7	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 cm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	82	m		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
8	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	174.96	cum		
9	Carriage of non-stock materials (Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Sand	Unloading	50.517	cum	
		Haulage	5577.08	km-ton	
	Stone	Unloading	325.389	cum	
		Haulage	42951.35	km-ton	
	Stone chips	Unloading	28.065	cum	
		Haulage	4041.36	km-ton	
10	Carriage of stock materials within 10 km radius(Cement or Steel)	Unloading	721.075	ton	
		Haulage	7210.75	km-ton	
	SUBTOTAL		A		

Signature of Bidder

2. BOQ FOR CONSTRUCTION OF PUBLIC TOILET BELOW LAL BAZAR AT RANIPOOL, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	38.475	Cum		
2	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	689	cum		
3	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	1.16	cum		
4	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)				
	Beam, lintels, girders, brersumers and cantilevers.	55.62	Sqm		
	Foundation, footings, base of column etc. for mass concrete.	54	Sqm		
	Floor slab, roof slab, landing, balcony and access platform.	3.18	Sqm		
	Square columns	21.6	Sqm		
5	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	37.71	cum		
6	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	40.7292	Qtl		
	Mild steel	4.52547	Qtl		
7	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	17.901	cum		
8	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 coarse sand) including carriage of bricks up to work site, curing etc. all complete.	157.98	Sqm		
9	Providing and Laying 40 mm thick 1:2:4 c.c. (1cement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. including cost of glass strips	39.78	Sqm		

PART I : BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	and curing etc. complete in all building floors wherever specified.				
10	Providing & Laying white or coloured glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (1cement, 3coarse sand) finished with flush pointing with white cement slurry.	39.78	Sqm		
11	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summer sand, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (1cement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	144.18	Sqm		
12	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.	0.468	cum		
	With locally available timber				
13	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	21.42	Sqm		
14	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concreten1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	225	kg		
15	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	42	nos		
16	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	14	nos		
17	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	10	nos		
18	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	20	nos		
19	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	10	nos		
20	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	384.36	Sqm		
21	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting	39.78	Sqm		

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris confirming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two coats of primer suitable for GRG board as per manufacture specification				
22	Providing fitting and fixing rolling shutters of approved make, made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	10.8	Sqm		
23	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	42.84	Sqm		
24	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	9	Sqm		
25	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	384.36	Sqm		
26	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	384.36	Sqm		
27	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/Sand/Kanker/Moorum).				
	Sand	Unloading	40.2	cum	
		Haulage	4438	km-ton	
	Stone	Unloading	15.801	cum	
		Haulage	2085.74	km-ton	

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	Stone chips	Unloading	66.96	cum	
		Haulage	9642.2	km-ton	
28	Carriage of stock materials within 10 km radius (Cement or Steel)				
		Unloading	218.117	ton	
		Haulage	2181.17	km-ton	
29	Head load of stock materials for a distance beyond 30 m and within 100m distance.	2181.17	ton		
30	Head load of non-stock materials for a distance beyond 30 m and within 100 m distance	122.96	cum		
31	Provision for internal water supply and sanitation	1	Job		
32	Provision for external sanitation system	1	Job		
33	Provision for internal electrification	1	Job		
	SUBTOTAL		B		

Signature of Bidder

**3. BOQ FOR CONSTRUCTION OF PUBLIC TOILET AT VAJRA STAND, GANGTOK.
(For Men: 3 nos.)**

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	8.04	cum		
2	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber) Beam, lintels, girders, brersumers and cantilevers.	2.91	Sqm		
3	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (Icement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	0.57	cum		
4	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	0.61236	Qtl		
	Mild steel	0.06804	Qtl		
5	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 course sand) including carriage of bricks up to work site, curing etc. all complete.	63.27	Sqm		
6	Providing and Laying 40 mm thick 1:2:4 c.c. (Icement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. Including cost of glass strips and curing etc. complete in all building floors wherever specified.	20.16	Sqm		
7	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (Icement, 3coarse sand) finished with flush pointing with white cement slurry.	20.16	Sqm		
8	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summer sand, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (Icement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	10.26	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
9	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.	0.189	cum		
	With locally available timber				
10	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	12.60	Sqm		
11	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concrete 1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	135.00	kg		
12	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	36.00	nos		
13	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	12.00	nos		
14	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	8.00	nos		
15	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	16.00	nos		
16	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	8.00	nos		
17	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	146.70	Sqm		
18	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris conforming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two	20.16	Sqm		

PART I : BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	coats of primer suitable for GRG board as per manufacture specification				
19	Providing fitting and fixing rolling shutters of approved make , made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	7.50	Sqm		
20	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	17.64	Sqm		
21	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	7.20	Sqm		
22	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	146.70	Sqm		
23	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	146.70	Sqm		
24	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/Sand/Kanker/Moorum).				
	Sand	Unloading	16.58	cum	
		Haulage	1830.43	km-ton	
	Stone chips	Unloading	17.618	cum	
		Haulage	2536.99	km-ton	
25	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading	30.49	ton	
		Haulage	304.90	km-ton	
26	Head load of stock materials for a distance beyond 30 m and within 100m distance.	304.90	ton		
27	Head load of non-stock materials for a distance beyond 30 m and within 100 m distance	34.20	cum		
28	Provision for internal water supply and sanitation	1.00	Job		
29	Provision for external water supply system	1.00	Job		
30	Provision for internal electrification	1.00	Job		
	SUBTOTAL		C		

Signature of Bidder

**4. BOQ FOR CONSTRUCTION OF PUBLIC TOILET AT VAJRA STAND, GANGTOK.
(For Women: 3 nos.)**

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	8.46	cum		
2	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)	2.52	Sqm		
	Beam, lintels, girders, brersumers and cantilevers.				
3	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (Icement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	0.38	cum		
4	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	0.40824	Qtl		
	Mild steel	0.04536	Qtl		
5	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 course sand) including carriage of bricks up to work site, curing etc. all complete.	60.75	Sqm		
6	Providing and Laying 40 mm thick 1:2:4 c.c. (Icement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. Including cost of glass strips and curing etc. complete in all building floors wherever specified.	16.83	Sqm		
7	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (Icement, 3coarse sand) finished with flush pointing with white cement slurry.	16.83	Sqm		
8	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summer sand, beach, wood duro, melody, or equivalent) in skirting, risers of steps and	9.81	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	Dados on 12mm thick cement plaster (1cement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.				
9	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.	0.189	cum		
	With locally available timber				
10	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	12.60	Sqm		
11	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concreten1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	135.00	Sqm		
12	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	36.00	nos		
13	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	12.00	nos		
14	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	8.00	nos		
15	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	16.00	nos		
16	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	8.00	nos		
17	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	138.33	Sqm		
18	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris confirming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175and consisting of floor and ceiling channel 50mm wide having	16.83	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two coats of primer suitable for GRG board as per manufacture specification				
19	Providing fitting and fixing rolling shutters of approved make , made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	7.50	Sqm		
20	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	17.64	Sqm		
21	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	7.20	Sqm		
22	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	138.33	Sqm		
23	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	138.33	Sqm		
24	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/Kanker/Moorum).				
	Sand	Unloading	14.83	cum	
		Haulage	1637	km-ton	
	Stone chips	Unloading	14.627	cum	
		Haulage	2106.26	km-ton	
25	Carriage of stock materials within 10 km radius(Cement or Steel)				

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	Unloading	27.549	ton		
	Haulage	275.486	km-ton		
26	Head load of stock materials for a distance beyond 30 m and within 100m distance.	275.49	ton		
27	Head load of non-stock materials for a distance beyond 30 m and within 100 m distance	29.45	cum		
28	Provision for internal water supply and sanitation	1.00	Job		
29	Provision for external water supply system	1.00	Job		
30	Provision for internal electrification	1.00	Job		
	SUBTOTAL		D		

Signature of Bidder

5. BOQ FOR SITE LEVELING AND PROTECTIVE WORKS FOR THE CONSTRUCTION OF PUBLIC TOILET AT MANILAKHANG, BHURTUK HELIPAD, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	71.4	Sqm		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	21.3	cum		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	1.35	cum		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	0.9	cum		
5	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	15.9	cum		
6	Providing, fixing & removing formwork for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	18.54	Sqm		
7	Providing and Laying 12mm thick cement plaster in 1:3 mix of specified mix in single coat including finishing even and smooth and curing complete.	33.75	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
8	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 cm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	15	m		
9	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	135	cum		
10	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
	Sand	Unloading	5.108	cum	
		Haulage	563.878	km-ton	
	Stone	Unloading	130.054	cum	
		Haulage	17167.1	km-ton	
	Stone chips	Unloading	2.659	cum	
		Haulage	382.942	km-ton	
11	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading	70.096	ton	
		Haulage	700.957	km-ton	
	SUBTOTAL		E		

Signature of Bidder

6. BOQ FOR CONSTRUCTION OF PUBLIC TOILET AT MANILAKHANG, BHURTUK HELIPAD, GANGTOK.

Sl. No	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Earth work in excavation by mechanical means (Hydraulic Excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	38.475	cum		
2	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	0.689	cum		
3	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	1.16	cum		
4	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)				
	Beam, lintels, girders, brersumers and cantilevers.	55.62	Sqm		
	Foundation, footings, base of column etc. for mass concrete.	54.00	Sqm		
	Floor slab, roof slab, landing, balcony and access platform.	3.18	Sqm		
	Square columns	21.6	Sqm		
5	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	37.71	cum		
6	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	40.7292	Qtl		
	Mild steel	4.52547	Qtl		
7	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	17.901	cum		
8	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 course sand) including carriage of bricks up to work site, curing etc. all complete.	157.98	Sqm		
9	Providing and Laying 40 mm thick 1:2:4 c.c. (1cement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. Including cost of glass strips and curing etc. complete in all building floors wherever specified.	39.78	Sqm		
10	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in	39.78	Sqm		

PART I: BIDDING PROCEDURES

Sl. No	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (1cement, 3coarse sand) finished with flush pointing with white cement slurry.				
11	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summer sand, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (1cement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	144.18	Sqm		
12	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.	0.468	cum		
	With locally available timber				
13	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	21.42	Sqm		
14	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concrete 1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	225.00	kg		
15	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	42.00	nos		
16	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	14.00	nos		
17	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	10.00	nos		
18	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	20.00	nos		
19	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	10.00	nos		
20	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	384.36	Sqm		
21	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris confirming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick	39.78	Sqm		

PART I: BIDDING PROCEDURES

Sl. No	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two coats of primer suitable for GRG board as per manufacture specification				
22	Providing fitting and fixing rolling shutters of approved make , made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	10.80	Sqm		
23	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	42.84	Sqm		
24	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	9.00	Sqm		
25	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	384.36	Sqm		
26	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	384.36	Sqm		
27	Carriage of non-stock materials (Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Sand	Unloading	40.2	cum	
		Haulage	4438	km-ton	
	Stone	Unloading	15.801	cum	
		Haulage	2085.74	km-ton	
	Stone chips	Unloading	66.96	cum	
		Haulage	9642.2	km-ton	
28	Carriage of stock materials within 10 km radius (Cement or Steel)				
		Unloading	218.117	ton	
		Haulage	2181.17	km-ton	

PART I: BIDDING PROCEDURES

Sl. No	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
29	Head load of stock materials for a distance beyond 30 m and within 100m distance.	2181.17	ton		
30	Head load of non-stock materials for a distance beyond 30 m and within 100 m distance	122.96	cum		
31	Provision for internal water supply and sanitation	1.00	Job		
32	Provision for external sanitation system	1.00	Job		
33	Provision for internal electrification	1.00	Job		
	SUBTOTAL		F		

Signature of Bidder

7. BOQ FOR SITE LEVELING AND PROTECTIVE WORKS FOR THE CONSTRUCTION OF PUBLIC TOILET AT SILIGURI STAND, DEORALI, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	2.70	cum		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	10.50	cum		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	0.90	cum		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	0.30	cum		
5	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	3.29	cum		
6	Supplying, bending and placing in position mild steel (6mm dia.) including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	3.55	Qtl		
	Mild steel	0.39	Qtl		
7	Providing, fixing & removing formwork for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	22.25	Sqm		
8	Providing and Laying 12mm thick cement plaster in 1:3 mix of specified mix in single coat including finishing even and smooth and curing complete.	21.85	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
9	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 cm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	30.00	m		
10	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
11	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/Sand/Kanker/Moorum).				
	Sand	Unloading	4.121	cum	
		Haulage	454.907	km-ton	
	Stone	Unloading	2.048	cum	
		Haulage	270.332	km-ton	
	Stone chips	Unloading	0.726	cum	
		Haulage	104.589	km-ton	
12	Carriage of stock materials within 10 km radius (Cement or Steel)				
		Unloading	51.941	ton	
		Haulage	519.409	km-ton	
SUBTOTAL			G		

Signature of Bidder

8. BOQ FOR CONSTRUCTION OF PUBLIC TOILET AT SILIGURI STAND, DEORALI, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	1.89	cum		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	23.895	cum		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	0.189	cum		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	0.38	cum		
5	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)				
	Beam, lintels, girders, brersumers and cantilevers.	11.97	Sqm		
	Foundation, footings, base of column etc. for mass concrete.	30.24	Sqm		
	Floor slab, roof slab, landing, balcony and access platform.	1.62	Sqm		
	Square columns	14.4	Sqm		
6	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	15.56	cum		
7	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	16.801	Qtl		
	Mild steel	1.86678	Qtl		
8	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	3.969	cum		
9	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4	39.42	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	course sand) including carriage of bricks up to work site, curing etc. all complete.				
10	Providing and Laying 40 mm thick 1:2:4 c.c. (1cement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. including cost of glass strips and curing etc. complete in all building floors wherever specified.	8.82	Sqm		
11	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (1cement, 3coarse sand) finished with flush pointing with white cement slurry.	8.82	Sqm		
12	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summer sand, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (1cement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	23.04	Sqm		
13	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.	0.054	cum		
	With locally available timber				
14	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	3.78	Sqm		
15	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concreten1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	45	Sqm		
16	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	12	nos		
17	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	4	nos		
18	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	4	nos		
19	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	8	nos		
20	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	2	nos		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
21	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	100.62	Sqm		
22	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris conforming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two coats of primer suitable for GRG board as per manufacture specification	8.82	Sqm		
23	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	15.12	Sqm		
24	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	1.8	Sqm		
25	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	100.62	Sqm		
26	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	100.62	Sqm		
27	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
	Sand	Unloading	10.28	cum	
		Haulage	1135.06	km-ton	
	Stone	Unloading	3.534	cum	
		Haulage	466.528	km-ton	
	Stone chips	Unloading	21.075	cum	
		Haulage	3034.85	km-ton	
28	Carriage of stock materials within 10 km radius (Cement or Steel)				
		Unloading	20.932	ton	

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	Haulage	209.324	km-ton		
29	Provision for internal water supply and sanitation	1.00	Job		
30	Provision for external sanitation system	1.00	Job		
31	Provision for internal electrification	1.00	Job		
	SUBTOTAL		H		

Signature of Bidder

9. BOQ FOR SITE LEVELING AND PROTECTIVE WORKS FOR THE CONSTRUCTION OF PUBLIC TOILET NEAR NAR BAHADUR BHANDARI DEGREE COLLAGE, TADONG, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	14.98	cum		
2	Provision for shifting of utilities like, power cable, water supply lines, sewer lines and other necessary arrangements. (To be paid as per measurements)	job	L.S		
3	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	104.85	cum		
4	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	14.85	cum		
5	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	9.90	cum		
6	Providing and Laying in position cement concrete of specified grade including compacting curing etc all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	159.94	cum		
7	Providing and laying hand packed stone filling in building works with clean hard selected stones, all complete.	4.81	cum		
8	Supplying, bending and placing in position mild steel (6mm dia.) including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	172.74	Qtl		
	Mild steel	19.19	Qtl		
9	Providing, fixing & removing formwork for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.				0
	Footings	10.26	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	Beams:	36.18	Sqm		
	Slab:	188.10	Sqm		
	Column:	10.94	Sqm		
10	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	91.07	cum		
11	Providing and Laying 12mm thick cement plaster in 1:3 mix of specified mix in single coat including finishing even and smooth and curing complete.	25.85	Sqm		
12	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 cm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	30.00	m		
13	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
14	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
	Sand	Unloading	173.259	cum	
		Haulage	19127.1	km-ton	
	Stone	Unloading	78.693	cum	
		Haulage	10387.4	km-ton	
	Stone chips	Unloading	17.502	cum	
		Haulage	2520.35	km-ton	
15	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading	2082.823	ton	
		Haulage	20828.2	km-ton	
	SUBTOTAL		I		

Signature of Bidder

**10. BOQ FOR CONSTRUCTION OF PUBLIC TOILET NEAR NAR BAHADUR
BHANDARI DEGREE COLLAGE, TADONG, GANGTOK.**

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)				
	Beam, lintels, girders, brersumers and cantilevers.	88.11	Sqm		
	Foundation, footings, base of column etc. for mass concrete.	54.00	Sqm		
	Floor slab, roof slab, landing, balcony and access platform.	3.60	Sqm		
	Square columns	21.60	Sqm		
2	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	45.54	cum		
3	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	49.1805	Qtl		
	Mild steel	5.4645	Qtl		
4	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 coarse sand) including carriage of bricks up to work site, curing etc. all complete.	252.48	Sqm		
5	Providing and Laying 40 mm thick 1:2:4 c.c. (1cement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. including cost of glass strips and curing etc. complete in all building floors wherever specified.	79.20	Sqm		
6	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (1cement, 3coarse sand) finished with flush pointing with white cement slurry.	90.00	Sqm		
7	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summer sand, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (1cement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	238.68	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
8	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.				
	With locally available timber	0.468	cum		
9	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	21.42	Sqm		
10	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concrete 1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	225.00	kg		
11	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	42.00	nos		
12	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	14.00	nos		
13	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	10.00	nos		
14	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	20.00	nos		
15	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	10.00	nos		
16	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	384.36	Sqm		
17	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris conforming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two	90.00	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	coats of primer suitable for GRG board as per manufacture specification				
18	Providing fitting and fixing rolling shutters of approved make , made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	10.80	Sqm		
19	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	42.84	Sqm		
20	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	9.00	Sqm		
21	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	9.00	Sqm		
22	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	384.36	Sqm		
23	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
	Sand	Unloading	61.32	cum	
		Haulage	6769.73	km-ton	
	Stone chips	Unloading	106.027	cum	
		Haulage	15267.89	km-ton	
24	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading	347.266	ton	
		Haulage	3472.66	km-ton	
25	Head load of stock materials for a distance beyond 30 m and within 100m distance.	347.266	ton		
26	Head load of non-stock materials for a distance beyond 30 m and within 100 m distance	167.347	cum		
27	Provision for internal water supply and sanitation	1.00	Job		
28	Provision for external sanitation system	1.00	Job		
29	Provision for internal electrification	1.00	Job		
	SUBTOTAL		J		

Signature of Bidder

11. BOQ FOR SITE LEVELING AND PROTECTIVE WORKS FOR THE CONSTRUCTION OF PUBLIC TOILET BELOW SBI ATM AT BHURTUK, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	10.76	cum		
2	Provision for shifting of utilities like, power cable, water supply lines, sewer lines and other necessary arrangements. (To be paid as per measurements)	job	L.S		
3	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	61.65	cum		
4	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	9.45	cum		
5	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	6.30	cum		
6	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	55.90	cum		
7	Providing and laying hand packed stone filling in building works with clean hard selected stones, all complete.	4.81	cum		
8	Supplying, bending and placing in position mild steel (6mm dia.) including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	60.37	Qtl		
	Mild steel	6.71	Qtl		
9	Providing, fixing & removing formwork for casting R.C.C items as indicated				

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.				
	Footings	10.26	Sqm		
	Beams:	14.58	Sqm		
	Slab:	8.10	Sqm		
	Column:	10.94	Sqm		
10	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	91.07	cum		
11	Providing and Laying 12mm thick cement plaster in 1:3 mix of specified mix in single coat including finishing even and smooth and curing complete.	25.85	Sqm		
12	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 cm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	30.00	m		
13	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
14	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
	Unloading	76.550	cum		
	Haulage	8451.866	km-ton		
	Unloading	78.693	cum		
	Haulage	10387.441	km-ton		
	Unloading	8.720	cum		
	Haulage	1255.716	km-ton		
15	Carriage of stock materials within 10 km radius(Cement or Steel)				
	Unloading	805.543	ton		
	Haulage	8055.427	km-ton		
	SUBTOTAL		K		

Signature of Bidder

12. BOQ FOR CONSTRUCTION OF PUBLIC TOILET BELOW SBI ATM AT BHURTUK, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)				
	Beam, lintels, girders, brersumers and cantilevers.	88.11	Sqm		
	Foundation, footings, base of column etc. for mass concrete.	54.00	Sqm		
	Floor slab, roof slab, landing, balcony and access platform.	3.60	Sqm		
	Square columns	21.60	Sqm		
2	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	45.54	cum		
3	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	49.1805	Qtl		
	Mild steel	5.4645	Qtl		
4	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 course sand) including carriage of bricks up to work site, curing etc. all complete.	252.48	Sqm		
5	Providing and Laying 40 mm thick 1:2:4 c.c. (1cement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. including cost of glass strips and curing etc. complete in all building floors wherever specified.	79.20	Sqm		
6	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (1cement, 3coarse sand) finished with flush pointing with white cement slurry.	90.00	Sqm		
7	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summer sand, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (1cement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	238.68	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
8	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.				
	With locally available timber	0.468	cum		
9	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	21.42	Sqm		
11	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concrete 1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in-Charge all complete:	225.00	kg		
12	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	42.00	nos		
13	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	14.00	nos		
14	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	10.00	nos		
15	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	20.00	nos		
16	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	10.00	nos		
17	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	384.36	Sqm		
18	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris confirming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two coats of primer suitable for GRG board as per manufacture specification	90.00	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
19	Providing fitting and fixing rolling shutters of approved make , made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	10.80	Sqm		
20	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	42.84	Sqm		
21	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	9.00	Sqm		
22	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	9.00	Sqm		
23	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	384.36	Sqm		
24	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/Sand/Kanker/Moorum).				
	Sand	Unloading	61.32	cum	
		Haulage	6770.07	km-ton	
	Stone chips	Unloading	106.027	cum	
		Haulage	15267.9	km-ton	
25	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading	347.266	ton	
		Haulage	3472.66	km-ton	
26	Head load of stock materials for a distance beyond 30 m and within 100m distance.	3472.66	ton		
27	Head load of non-stock materials for a distance beyond 30 m and within 100 m distance	167.35	cum		
28	Provision for internal water supply and sanitation	1.00	Job		
29	Provision for external sanitation system	1.00	Job		
30	Provision for internal electrification	1.00	Job		
	SUBTOTAL		L		

Signature of Bidder

13. BOQ FOR SITE LEVELING AND PROTECTIVE WORKS FOR THE CONSTRUCTION OF PUBLIC TOILET AT ADAMPOOL NEW HIGHWAY BELOW KHEL GAON, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	71.4	Sqm		
2	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	70.25	cum		
3	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	116.64	cum		
4	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	14.58	cum		
5	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	9.72	cum		
6	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	259.20	cum		
7	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 cm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	110.00	m		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
8	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	225.60	cum		
9	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
	Unloading	62.266	cum		
	Haulage	7421.77	km-ton		
	Unloading	427.039	cum		
	Haulage	56369.1	km-ton		
	Unloading	37.355	cum		
	Haulage	5379.16	km-ton		
10	Carriage of stock materials within 10 km radius(Cement or Steel)				
	Unloading	959.898	ton		
	Haulage	9598.98	km-ton		
	SUBTOTAL		M		

Signature of Bidder

14. BOQ FOR CONSTRUCTION OF PUBLIC TOILET AT ADAMPOOL NEW HIGHWAY BELOW KHEL GAON, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	38.475	cum		
2	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	0.689	cum		
3	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	1.16	cum		
4	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)				
	Beam, lintels, girders, brersumers and cantilevers.	55.62	Sqm		
	Foundation, footings, base of column etc. for mass concrete.	54.00	Sqm		
	Floor slab, roof slab, landing, balcony and access platform.	3.18	Sqm		
	Square columns	21.60	Sqm		
5	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	37.71	cum		
6	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	40.7292	Qtl		
	Mild steel	4.52547	Qtl		
7	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	17.901	cum		
8	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 course sand) including carriage of bricks up to work site, curing etc. all complete.	157.98	Sqm		
9	Providing and Laying 40 mm thick 1:2:4 c.c. (1cement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. Including cost of glass strips	39.78	Sqm		

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	and curing etc. complete in all building floors wherever specified.				
10	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (1cement, 3coarse sand) finished with flush pointing with white cement slurry.	39.78	Sqm		
11	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summer sand, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (1cement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	144.18	Sqm		
12	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.	0.468	cum		
	With locally available timber				
13	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	21.42	Sqm		
14	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concreten1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	225.00	kg		
15	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	42.00	nos		
16	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	14.00	nos		
17	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	10.00	nos		
18	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	20.00	nos		
19	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	10.00	nos		
20	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	384.36	Sqm		
21	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting	39.78	Sqm		

PART I : BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris confirming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two coats of primer suitable for GRG board as per manufacture specification				
22	Providing fitting and fixing rolling shutters of approved make, made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	10.80	Sqm		
23	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	42.84	Sqm		
24	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	9.00	Sqm		
25	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	384.36	Sqm		
26	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	384.36	Sqm		
27	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
		Unloading	40.20	cum	
		Haulage	4438	km-ton	
		Unloading	15.801	cum	
		Haulage	2085.74	km-ton	

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
		Unloading	66.96	cum	
		Haulage	9642.20	km-ton	
28	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading	218.117	ton	
		Haulage	2181.17	km-ton	
29	Head load of stock materials for a distance beyond 30 m and within 100m distance.	218.117	ton		
30	Head load of non-stock materials for a distance beyond 30 m and within 100 m distance	122.961	cum		
31	Provision for internal water supply and sanitation	1.00	Job		
32	Provision for external sanitation system	1.00	Job		
33	Provision for internal electrification	1.00	Job		
	SUBTOTAL		N		

Signature of Bidder

15. BOQ FOR SITE LEVELING AND PROTECTIVE WORKS FOR THE CONSTRUCTION OF PUBLIC TOILET AT FISH POND NEAR PALZOR STADIUM, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Clearing jungle including uprooting of rank vegetation, grass, brushwood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.	71.40	Sqm		
2	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	18.83	cum		
3	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	19.44	cum		
4	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	2.43	cum		
5	Providing and Laying in position cement concrete of specified grade including compacting curing etc all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	1.62	cum		
6	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	41.18	cum		
7	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 cm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	110.00	m		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
8	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	112.80	cum		
9	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
	Sand	Unloading		12.109	cum
		Haulage		1336.85	km-ton
	Stone	Unloading		136.365	cum
		Haulage		18000.2	km-ton
	Stone chips	Unloading		6.681	cum
		Haulage		962.106	km-ton
10	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading		169.624	cum
		Haulage		1696.24	km-ton
	SUBTOTAL			0	

Signature of Bidder

16. BOQ FOR CONSTRUCTION OF PUBLIC TOILET AT FISH POND NEAR PALZOR STADIUM, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 Sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	78.039	cum		
2	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	9.86	cum		
3	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 (1cement, 3 coarse sand, 6 graded stone aggregate of 20mm & down size).	6.573	cum		
4	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)				
	Beam, lintels, girders, brersumers and cantilevers.	165.00	Sqm		
	Foundation, footings, base of column etc. for mass concrete.	90.72	Sqm		
	Floor slab, roof slab, landing, balcony and access platform.	265.20	Sqm		
	Square columns	43.20	Sqm		
5	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	119.88	cum		
6	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				0
	Tor steel	129.47	Qtl		
	Mild steel	14.3856	Qtl		
7	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	108.702	cum		
8	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 course sand) including carriage of bricks up to work site, curing etc. all complete.	513.80	Sqm		
9	Providing and Laying 40 mm thick 1:2:4 c.c. (1cement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. including cost of glass strips	241.56	cum		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	and curing etc. complete in all building floors wherever specified.				
10	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (1cement, 3coarse sand) finished with flush pointing with white cement slurry.	241.56	Sqm		
11	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summers and, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (1cement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	513.80	Sqm		
12	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.	0.662	cum		
	With locally available timber				
13	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	16.20	Sqm		
14	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concreten1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	1971.00	kg		
15	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	38.00	nos		
16	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	19.00	nos		
17	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	12.00	nos		
18	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	38.00	nos		
19	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc complete.	19.00	nos		
20	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)	1317.76	Sqm		
21	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting	241.56	Sqm		

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris confirming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two coats of primer suitable for GRG board as per manufacture specification				
22	Providing fitting and fixing rolling shutters of approved make, made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	16.20	Sqm		
23	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	32.40	Sqm		
24	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	48.60	Sqm		
25	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	1317.76	Sqm		
26	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	1317.76	Sqm		
27	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/ Kanker/ Moorum).				
	Sand	Unloading		187.93	cum
		Haulage		20747.6	km-ton
	Stone	Unloading		100.777	cum
		Haulage		13302.6	km-ton

PART I: BIDDING PROCEDURES

Sl. No.	Particulars			Quantity	Unit	Rate (in INR)	Amount (in INR)
	Stone chips	Unloading		313.403	cum		
		Haulage		45130	km-ton		
28	Carriage of stock materials within 10 km radius(Cement or Steel)						
		Unloading		832.068	ton		
		Haulage		8320.68	km-ton		
29	Provision for internal water supply and sanitation			1.00	Job		
30	Provision for external sanitation system			1.00	Job		
31	Provision for internal electrification			1.00	Job		
	SUBTOTAL				P		

Signature of Bidder

17. BOQ FOR CONSTRUCTION OF PUBLIC TOILET AT OLD CHILDERN PARK, GANGTOK.

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
1	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials upto a lead of 1000 metres, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	8.04	cum		
2	Providing, fixing & removing form work for casting R.C.C items as indicated below: with locally available timber)				
	Beam, lintels, girders, brersumers and cantilevers.	10.74	Sqm		
3	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (Icement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	1.74	cum		
4	Supplying, bending and placing in position mild steel including straightening, cutting, bending and placing in position including binding wire complete.				
	Tor steel	1.88082	Qtl		
	Mild steel	0.20898	Qtl		
5	Providing and laying first class brick work in half brick thick in superstructure of standard size bricks with 1:4 cement mortar (1 cement and 4 course sand) including carriage of bricks up to work site, curing etc. all complete.	180.27	Sqm		
6	Providing and Laying 40 mm thick 1:2:4 c.c. (Icement, 2coarse sand,4 of 12.5mm and down stone aggregate) flooring with floating coat of neat cement to give a smooth surface in not exceeding 02 Sqm. Including cost of glass strips and curing etc. complete in all building floors wherever specified.	79.20	Sqm		
7	Providing & Laying white or colored glazed vitrified tiles of Orient / Somani or equivalent colour in flooring, treads of steps landing etc. laid on a bed of 15mm, cm 1:3 (Icement, 3coarse sand) finished with flush pointing with white cement slurry.	79.20	Sqm		
8	Providing and Laying white or colored glazed tiles of size 200mm x 300mm of plain/normal prints colours (white, grey, ivory, platinum, cream, glacier white, summers and, beach, wood duro, melody, or equivalent) in skirting, risers of steps and Dados on 12mm thick cement plaster (Icement, 3coarsed sand) 1:3 bare and jointed with white cement slurry.	180.27	Sqm		

PART I: BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
9	Providing, fitting and fixing of dressed local timber (tooni, katus equivalent) in all types of frames complete.	0.423	cum		
	With locally available timber				
10	Providing, fitting and fixing waterproof flush door shutters, solid block hard-core construction with frame of 1st class hard timber with well-matched 3mm teak ply decorative type on one faces of the shutters including hinges with screws complete.	21.42	Sqm		
11	Providing, fitting and fixing steel windows and ventilators of standard rolled steel section joints metered and welded with iron lugs embedded in cement concrete 1:3:6 including providing fitting and fixing 3 mm thick glass pens with glazing clips and special metal putty complete with MS grills @ 150mm c/c as per the direction of Engineer - in- Charge all complete:	275.00	kg		
12	Providing and fixing M.S. pressed bright finished butt hinges with necessary screws etc. complete.	33.00	nos		
13	Providing, fitting and fixing. Sliding door bolts with nuts and screws etc. complete.	11.00	nos		
14	Providing, fitting and fixing. Tower bolts 250x10mm with necessary screw etc. complete.	11.00	nos		
15	Providing, fitting and fixing. Handles 125mm size with necessary screws etc. complete.	22.00	nos		
16	Providing and fixing 100mm mortise lock with 6 levers and pair of handles with necessary screws etc. complete.	11.00	nos		
17	Providing and Laying 15mm thick cement plaster of specified mix in single coat including finishing even and smooth and curing etc. all complete. (1:3)				
18	Providing / Fitting / Fixing Gypsum board ceiling having composite thickness of 67mm consisting of frames and double skin 8.5mm thick glass reinforced gypsum (GRG) board manufactured by spray suction technique with high strength plaster of Paris conforming to IS 8272 i/c providing and fixing frame works made of special section power pressed MS sheet and galvanized with Zinc coating of grade 175 and consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm width 0.50 m thick fixed to floor/ceiling at spacing 610 mm centre to centre by 6mm dia. bolts and nuts to both ends of ceiling (hang on truss)/ partition fixed on wall with rawl plugs) at the spacing of 450mm c/c and fixing of GRG boards to either frame work by 20mm long drive screws on studs, floors, ceiling channel spacing of 300mm c/c i/, join paper tapes i/c two	79.20	Sqm		

PART I : BIDDING PROCEDURES

Sl. No.	Particulars	Quantity	Unit	Rate (in INR)	Amount (in INR)
	coats of primer suitable for GRG board as per manufacture specification				
19	Providing fitting and fixing rolling shutters of approved make , made of required size MS laths interlocked together through their entire length and joined together at the end by end lock mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including providing and fixing wire springs grade No 2 and MS top cover of required thickness of rolling shutters as per the direction of Engineer - in- Charge all complete:	7.50	Sqm		
20	Providing and applying priming coat with ready mixed pink on timberwork including preparation of the surface by thoroughly cleaning and sand papering etc. complete.	42.84	Sqm		
21	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	9.90	Sqm		
22	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	42.84			
23	White washing three or more coats with white lime to give an even shade including cleaning the surface to remove dirt, dust, mortar drop etc. on new surface complete.	9.90			
24	Carriage of non-stock materials (Stone Boulder/ Stone aggregates/ Sand/Kanker/ Moorum).				0
		Unloading	54.50	cum	
		Haulage	6017.21	km-ton	
		Unloading	68.80	cum	
		Haulage	9907.24	km-ton	
25	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading	225.643	ton	
		Haulage	2256.43	km-ton	
26	Head load of stock materials for a distance beyond 30 m and within 100m distance.	225.64	ton		
27	Head load of non-stock materials for a distance beyond 30 m and within 100 m distance	123.30	cum		
28	Provision for internal water supply and sanitation	1.00	Job		
29	Provision for external water supply system	1.00	Job		
30	Provision for internal electrification	1.00	Job		
	SUBTOTAL		Q		

Signature of Bidder

Measurement & Payment Criteria

The measurement and payment criteria shall generally be as under:

Measurement of work done

Definition: The Project manager shall also mean the Engineer-in Charge and vice versa.

The Project Manager shall, except as otherwise provided, ascertain and determine by measurement the value in accordance with the contract of work done.

- All measurements of the items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract.
- All measurements and levels shall be taken jointly by the Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurement shall be signed and dated by the Engineer-in-Charge and the contractor or their representative in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.
- If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the GSCDL shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurement after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the contractor.
- The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.
- The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative in-charge of the work before covering or otherwise pacing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in-charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.
- The Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of GSCDL to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.
- It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material on which it

relates not shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

Payment on Intermediate Certificate to be regarded as Advances

No payment shall be made for work, estimated to cost Rupees Fifty Thousand or less, till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rupees twenty thousand, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the GSCDL in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/adjustment of advances for material collected, if any, since the last such payment is less, than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-Charge shall prepare or cause to be prepared interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge.

All such interim payments shall be regarded as payment by way to advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-Charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate (s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which or relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect contract conclude, determine or affect in any way powers of the Engineer-in-Charge or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided, without prejudice to the right of the GSCDL to take action under the terms of the contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority

Section V- Eligible Countries

This bid is eligible only to bidders from India

Section VI - Fraud and Corruption

1. Purpose

1.1 This annex shall apply with respect to procurement under GSCDL projects.

2. Requirements

2.1 The GSCDL requires that employees of GSCDL, bidders, (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution and refrain from Fraud and Corruption.

2.2 To this end, the GSCDL:

- (a) Defines, for the purposes of this provision, the terms set forth below as follows:
- (i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - (ii) “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - (iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - (iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (v) “obstructive practice” is:
 - deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a GSCDL investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - acts intended to materially impede the exercise of the GSCDL’s inspection and audit rights provided for under paragraph 2.2 e. below.
- (b) Rejects a proposal for award if the GSCDL determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- (c) In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the GSCDL determines at any time that representatives of the GSCDL or bidder or his representative engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question;
- (d) GSCDL, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a GSCDL-financed contract, financially or in any other manner;(ii) to be a nominated sub-contractor, consultant, manufacturer or supplier, or

PART I: BIDDING PROCEDURES

- service provider of an otherwise eligible firm being awarded a GSCDL-financed contract; and (iii) to further in the preparation or implementation of any GSCDL-financed project;
- (e) Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a GSCDL loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the GSCDL to inspect all accounts, records and other documents relating to the procurement process, selection and/or contract execution,, and to have them audited by auditors appointed by the GSCDL.

Section VI A-Standard Specifications

List of Materials and Proposed schedule of finishes for the “Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)”, Contractor has to take prior approvals of all materials, fixtures and finishes to be used from the Project Manager/appropriate authority appointed by GSCDL before procurement.

Materials	Specifications
Cement	43,53 Grade OPC
Sand	Tar Khola or its equivalent
Stone chips	Government approved quarry
Stone	Government approved quarry
Door Frames	Sal/Katus or its equivalent
Door Shutters	38mm TK block board with both side with clamp/teak lipping
Windows	Wooden flung open / Aluminum / UPVC
Bricks	(20x10x10)
Cement Plaster	1:4
Reinforcement Fe415,500	TATA / SAIL or equivalent
Concrete RCC	M25, M20
GI Sheet	22 BWG TATA or equivalent (As per sample approved)
Road	Modified Bitumen for Grading II (10mm Nominal Size)
G.I. Pipe	Medium with high quality fibre with ISI Mark
Kadappa Stone	25mm TK (Layed over 20mm TK 1:4 Concrete)
MS Railing	Square pipe with endless knot at centre

PART I: BIDDING PROCEDURES

Materials	Specifications
MS Grating for Drain	6mmX40mm flat plate fitting with angle plate
Primer and Paint	Asian Paints/Berger/Dulux or equivalent
Flooring	
Corridor	Kota Stone
Toilet	Somany / Kajaria or equivalent
Steps	Green Marble
Fixtures	
A Cock / L Cock / Shower head / Health Faucet	Esco / Jaguar or equivalent
Sanitary Hardware	Hindware / Simpolo / Cera or equivalent
G.I. Pipe	Medium with high quality fibre with ISI Mark
Luminaries and Electrical Fitting (All concealed wiring)	
Wire	Fire Proof
Switches/Sockets	MK / Crabtree / Legrand or equivalent
Luminaires	Philips or equivalent
Transformer	100kVA with armored cable of appropriate design

Note:-

- (a) The bidder is required to sign the declaration as given in Section IV (Bidding forms) and submit along with the bids
- (b) In addition to above declaration, relevant national and international standard specifications are to be referred and taken into consideration for the bid.

PART II

WORKS' REQUIREMENTS

PART II: WORKS' REQUIREMENTS

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Section VII - WORKS REQUIREMENTS

REPORT, SPECIFICATIONS, STRUCTURAL DESIGN, TESTS

A. BROAD REPORT

NAME OF WORK:	Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)
BRIEF:	This estimate has been framed to meet up the cost for the work "Construction / Upgradation of public toilets at various locations in and around Gangtok, East Sikkim including Defect Liability Period of One Year"
SCOPE OF WORK:	Construction / Upgradation of public toilets in and around Gangtok includes: Site Leveling and Protective Works, Providing box drain, Construction of Public Toilets, Provision for internal water supply and sanitation, Provision for external sanitation system, Provision for internal electrification, etc.
SCHEDULE OF RATES:	SPWD SOR 2020. Tender is based on item rate.
LAND/SPACE:	Existing locations and municipal area, etc.

B. SPECIFICATIONS

1. The works shall **generally** be executed as per the approved specifications of the Sikkim PWD or as per the direction of the Project Manager. Wherever codes do not apply, the work shall be taken up as per good engineering practices and to the satisfaction of the Project Manager.
2. Only TMT CRS reinforcing bars are to be used in the work. The same must bear certification from ISI marked reputed company or authorized dealer. The same must be approved by the Engineer in charge concerned.
3. The work requirements shall be as follows but not limited to: -
 - a. Hill Cutting & Earthwork Excavation of foundation trenches including throwing of spoils to a designated dumping yard.
 - b. Protective Works: - Consist of: -
 - Construction of Gabian wall in breast and retaining wall using 4 mm diameter G.I wire hexagonal mesh size ADTM 975 (80 mm x 100 mm) with zinc coating @ 275 grams per Sqm including boulder filling, transportation, etc.
 - Plum Concrete of 1:2:4 cement concrete with 50% clean hard stone of sizes including shuttering, compacting and curing.
 - Providing and laying in position of 1:1.5:3 (M20) of Reinforced Cement Concrete Cantilever wall and Counterfort Wall.
 - Back Filling works as per direction of Engineer-in-charge.
 - c. Construction of Drainage: - The scope of works includes: -
 - Providing and laying standard 'V' shaped drain of length 260 meter with cement concrete base in 1:2:4 mix of 100 mm thick over clean hard selected stones soling of 150 mm thick and 1:2:4 mix plum concrete along with the vertical side of thickness 150 mm and depth 450 mm including curing, compacting as per direction of Engineer-in-charge.

PART II: EMPLOYER'S REQUIREMENTS

4. Subject to availability of space, the contractor would provide a site office along with the furniture, electricity, electrical fittings, drinking water facility, toilet along with office stationeries etc for the use of departmental field officers/staff deputed for the inspection and supervision of the work as directed by the Engineer in Charge from the date of commencement till the date of completion of the work, The cost of these facilities shall be inclusive in Bid value offered / accepted. No extra claim shall be admissible for these facilities.
5. Collection of materials on the road sides should be so planned that it should be commensurate with the physical progress of the works and the collected materials should not cause any hindrance to the traffic. It must be ensured that the contractor arranges for separate land for storage of construction materials and machinery and these shall not be allowed to be stacked on road sides.
6. No work beyond the scope of sanctioned estimate leading either to increase in the scope of the work or change in the specifications should be undertaken without obtaining prior written approval of the Chief Executive Officer.
7. The following road safety materials must be used during the time of execution/diversion of traffic.
 - i) Safety reflective jackets for labours/officers.
 - ii) Safety helmets for labours/officers.
 - iii) Safety reflective gloves.
 - iv) Pollution masks for labours & engineers.
 - v) Hand held searchlights during night.
 - vi) LED batons.
 - vii) First Aid
 - viii) Light arrangement for workers at work site during working hours at night.
 - ix) Proper barricading
8. The display boards/ signboards on the developmental activities of the work shall be made as per the guidelines issued by the GSCDL.
9. Video and Still Photography of the stretch to be improved / renewed before and after execution of the work should be invariably done and records submitted to the Project Manager when asked upon to do so.
10. Before actual execution, the borrow area for selected earth shall be exactly identified and got inspected and approved from the Engineer-in-Charge.
11. All taxes & Levies, cess etc shall be deducted as per the Govt. Rules and as amended by the Government from time to time.
12. The Work value, scope and quantum of work are subject to change, the contractor shall execute the work as per the directives of GSCDL. No claim on this account shall be entertained whatsoever. If any extra claim is made, it shall be as per the agreement rates.
13. The contractor shall engage a Graduate/Diploma Civil Engineer (s) at the project site during the period of execution of work as prescribed in the Bidding Document.
14. Avoidable damages due to negligence of the contractor shall be at his own risk and cost. The GSCDL shall not be liable for payment of such damages (if any), including accidents to labourer/s at site.
15. The contractor shall ensure the safety of the road reserve area and beyond.
16. The contractors are required to register themselves under Goods and Service Tax rules and obtain the GST Number before the settlement of bill, or they must be a registered Companies/Firms registered under the Companies act, 1956, having valid Pan card and Tan. The Contractors are also required to submit PAN No as per provision of Indian Income Tax Act, wherever applicable.

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17. The recoveries of Income Tax, Goods and Service Tax and Royalties on Forest produces shall be as per rates notified by the Government from time to time and applicable on the date of payment.
18. In case the man powers employed by the contractor are from outside the State or neighbouring countries, it shall be the responsibility of the contractor to get them registered with the Labour Department, Government of Sikkim as per the relevant Labour Laws.
- 19. It is expected that the bidder to have inspected the site before submitting his bid. There may be possible site difficulties for which the bidder should have their own correct assessment before submitting the bid.**

C. STRUCTURAL DESIGN

The contractor shall be provided with the structural design duly authenticated by a Structural Engineer of GSCDL after getting approval of the Project Manager, for structural elements.

D. TESTS

-deleted-

E. REPORTING REQUIREMENTS

The contractor shall within 3 weeks upon commencement of the assignment, shall prepare and submit to the Employer the overall Project execution plan showing details and sequence of works that will be taken up, including the resource deployment schedule and expected billing per month for the project duration. This will be submitted along with the QA & QC plan for approval of the Project Manager

The Contractor will submit Monthly progress report duly indicating in the report

- a) Planned Vs Achieved physical and financial progress Catch up plan (if any and required)
- b) QA & QC tests done and their reports
- c) Issues needing attention of the Employer
- d) Key activities planned for the next 3 months
- e) Key Photographs showing the progress of the work. Any other relevant matter

TECHNICAL SPECIFICATIONS - CIVIL/BUILDING WORKS

A. Material Specification

All items of works shall be executed as per Sikkim PWD Specifications. Any item or part of the item not covered in Sikkim PWD Specifications shall be executed on relevant BIS specification or CPWD Specification or as per directions of Authority. The brief specification of main materials involved and items to be executed are given below:

1. Bricks: Bricks shall be sound, hard, well-burnt, uniform in size, shape and colour, homogeneous in texture, giving a metallic ringing sound, free from flaws, cracks, holes, lumps or grit and arises should be square, straight and sharply defined. They shall not break when struck against each other and dropped flat from a height of 1 m to the ground. They shall conform to IS 1077 giving classes of common burnt clay bricks. Maximum absorption shall not be more than 20% of its dry weight on immersion in water for 24 hours. Minimum crushing strength shall be 75 kg/sq cm. Bricks for masonry work in foundations as well as in superstructure shall be first class burnt clay bricks conforming to Sikkim PWD Specifications.
2. Cement: Ordinary Portland Cement (OPC) 43/53 grade Conforming to latest Sikkim PWD Building Works Specifications and IS 8112-2013/12269-2013 shall be allowed for concreting in both plain & R.C.C. works. In no case Portland Pozzolonic cement shall be allowed for such work. In case of non-availability of O.P.C. Cement Port Land Pozzolonic cement, conforming to relevant ISI specification of the same popular brands shall be permitted for masonry work in foundations and superstructure with the permission of the Engineer-in-Charge. Cement shall be stored and stacked at the site of work according to Sikkim PWD norms. In no case, the cement shall be procured for requirement beyond 3 months and the same shall also be consumed within three months' time. All such cements, which shall be having storing age more than three months or otherwise appeared to be deteriorated, shall be got retested for compressive strength and initial and final setting time, before use. Decision for equivalent use or no use of such cements for works other than concreting shall be taken by the Engineer-in-Charge and shall be final and binding.
3. Concreting: In order to achieve accuracy in the proportion of batching, batching plant should be installed and maintained at the site for the concreting work or Ready-mix concrete shall be procured on prior approval of Engineer-in-Charge.
4. Steel Reinforcement: High yield strength deformed bar TMT (HYSD TMT) having minimum strength of 415 N/ mm² up to and including 25 mm diameter and 500 N/mm² for bigger diameter conforming to IS: 1786 shall be used as reinforcement for RCC works. Binding wire shall be conforming to IS: 432. All steel shall be sound and free from cracks surface flaws laminations, rough and imperfect edges and all other defects. The variation in weight per meter length of the bars shall be permitted only up to the following limits:
 - a) 6 mm & 8mm +7%
 - b) 10 mm & 12 mm +4%
 - c) 16 mm & above +3%

Spacer blocks shall be made conforming to M15 concrete tied with binding wires as specified or PVC spacer shall be used prior approval of Engineer-in-Charge.

5. Structural steel: General requirements relating a supply of structural steel shall conform to IS 8910. Requirements for mild steel (standard quality) plate, sections bars etc., designated as E250 (Fe 410-W) for use in structural work (as per IS:2062-2006, superseding IS 1977, 8500).

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Structural steel such as angle section, T-sections, I-sections, Channels & steel plates shall be conforming to IS: 226. Structural steel used in the works other than steel in reinforced concrete, rails and fastenings shall be either of the following type:

- a) Mild steel conforming to IS: 226 - "Structural Steel (Standard quality)" or IS: 2062 - "Structural Steel (fusion welding quality)
 - b) Whenever high tensile steel is specified it shall be conforming to IS: 961 - "Structural steel (High Tensile)".
 - c) All steel tubes shall be hot finished seamless steel tubes (HFS) of the specified strength and shall conform to IS: 1161. Tubes made by other processes and which have been subjected to cold working, shall be regarded as hot finished if they have been subsequently been heat treated and are supplied in the normalized condition
6. Water: Water for all purposes of preparing, mortars, concrete and curing of masonry and concrete works in construction shall conform to Sikkim PWD Specifications and relevant IS codes.
 7. Earth: Earth for embankment and backfills in masonry works etc. shall be free from slumps, roots, grass, clods and large pieces of stones, and shall be conforming to Sikkim PWD Specifications.
 8. Brick Ballast: Bricks ballast for use in foundation and under floors shall conform Sikkim PWD Specifications.
 9. Fine Aggregate: The Fineness Modulus (FM) of sand shall be 2.0-3.50 as per latest IS-383. It shall be free from harmful impurities and deleterious substances. In case fine dust and silt is found more than 4% the same shall be washed thoroughly before use.
 10. Sand for Plastering and Mortars: For plain and reinforced cement concrete (PCC and RCC) or prestressed concrete (PSC) works, fine aggregate shall consist of clean, hard, strong and durable pieces of crushed stone, crushed gravel, or a suitable combination of natural sand, crushed stone or gravel. They shall not contain dust, lumps, soft or flaky, materials, mica or other deleterious materials in such quantities as to reduce the strength and durability of the concrete, or to attack the embedded steel. Motorised sand washing machines should be used to remove impurities from sand. Fine aggregate having positive alkali-silica reaction shall not be used. All fine aggregate shall conform to IS: 383 and test for conformity shall be carried out as per IS: 2386 (Part I to VIII). The Contractor shall submit to the Engineer the entire information indicated in Appendix A of IS: 383. The fineness modules of fine aggregate shall neither be less than 2.0 nor greater than 3.5.
 11. Coarse Aggregate: Unless, otherwise specified or ordered, only $\frac{3}{4}$ " (20 mm) nominal size crushed aggregate shall be used as coarse aggregate for concreting purpose in slabs, beams, columns, in superstructure and foundations as per IS: 383 – 1970. The same size aggregate shall be used for conglomerate floors also. In lintels and slabs having thickness less than 12 cm, 12.5 mm nominal size crushed aggregate shall be used. Crushed aggregate shall not be having aggregate impact value more than 30 and water absorption more than 2%.
 12. Glass Panes: Thickness of glass panes according to the size of opening and its quality shall conform to Sikkim PWD Specifications. Only the first quality glass panes of popular brands shall be permitted for use. Glass panes shall be checked both for the required thickness as well as weight per unit area.
 13. Bitumen for coating DPC: Suitable type of bitumen as per Sikkim PWD Specifications or CPWD Specifications or relevant IS code shall only be permitted for bitumen coatings of roof top and D.P.C.
 14. Timber/ Joinery: Timber for joinery purpose shall conform in general to Sikkim PWD Specifications.

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15. Plywood: The plywood in general shall be conforming to Sikkim PWD Specifications for cupboard shutters the specified ply should be urea bonded whereas for flush doors shutters the specified ply to be used shall be phenol bonded only. The plywood should be termite proof and water proof.
16. Wire Gauge: Wire gauge for joinery purpose shall conform to Sikkim PWD Specifications.
17. Other Materials
- All other materials required for the construction shall conform to relevant Sikkim PWD Specifications/or latest BIS specification or CPWD Specifications, or as per directions of Engineer-in-Charge and / or appropriate Authority appointed by GSCDL.
 - White cement: Wherever is to be used, shall comply with India standard IS: 269 and its colour shall be pure white.
 - Paints and allied material: Only first quality paints duly BIS marked shall be used for the finishing item wherever required. Material shall be as per the following IS specification: wooden & metallic surface:
 - Synthetic enamel finish (for exterior uses) as per IS: 520
 - Synthetic enamel with semi glass finish (for interior uses) as per IS: 133
 - Priming coat IS: 102
 - Zinc chromate primer on Iron Steel IS: 107/ IS 2074
 - Aluminum paint IS: 165/IS 2339
 - Turpentine oil IS: 83/ IS 533
 - Linseed oil IS: 77,75 & 78
 - Varnish Exterior IS: 338
 - Varnish Interior IS: 337
 - Filler for enamel paints IS: 110
 - Wood filler IS: 345
 - Putty for wooden frame IS: 419
 - Putty for metal frame IS: 420
 - Brushes IS: 384
 - Paint remover IS: 430
 - Shellac IS: 16
18. CI Pipe Fitting (Rain water pipe): The pipes shall be manufactured by closed grain CI and shall satisfy IS 1230 in all respects. The number of pipes and the diameter shall be worked out on the basis of 1" Sq. of CSA for every 60 specifications No. 3.54. The minimum weight v/s nominal diameter shall be as under:

Minimum Weight and Nominal Diameter

Nominal (mm)	Weight/m	Length (m)	Size of socket	Thick (mm)
90	14	1.8	114.4	3.2
50	26	1.8	166.2	3.6

B. Inspection and Testing of Materials

- The Concessionaire shall be required, if requested to produce the manufacturers 'test certificate for the particular batch of materials supplied by him and all materials to be used by him on site shall confirm to specifications mentioned in the tender or as directed by Engineer-in-Charge or

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appropriate authority appointed by GSCDL. The test carried out shall be as per the relevant Indian Standards.

2. All tests required for the works (e.g : hill side stability test, soil bearing test, other such relevant tests required) to be carried out by Concessionaire as per specifications mentioned in the tender or as directed by Engineer-in-Charge or appropriate authority appointed by GSCDL. The test carried out shall be as per the relevant Indian Standards. The Concessionaire shall be required to produce all such certificates, if requested.
3. Laboratory for testing fineness, consistency, setting time compressive & tensile strength of cement compressive & flexural strength of cement concrete and proof stress, elongation, tensile strength, bending & re-bending of reinforcement steel. Fully equipped field level laboratory for testing of general materials located at project site or at authority approved nearby place.

Description of Test, Reference / Standards and Sample Quantity

S. No.	Description of Test	Reference Standard /	Quantity of Samples Required
Aggregates (Coarse & Fine)			
1	Sieve analysis (dry) / fineness modulus	IS 2386 : Part I – 1963, IS 383 – 1970 , MORTH – 4 th Revision, 2001	20 kg
2	Silt content		2 kg
3	Specific gravity	IS 2386 : Part III – 1963	1 kg
4	Impact test	IS 2386 : Part III – 1963, MORTH – 4 th Revision 2001	10 kg
5	Crushing Values / 10% fine value		10 kg
6	Los Angeles abrasion value		10 kg
7	Water absorption	IS 2386 : Part III – 1963, MORTH – 4 th Revision 2001	1 kg
8	Flakiness index	IS 2386 : Part I – 1963, MORTH – 4 th Revision 2001	10 kg
9	Elongation index		10 kg
10	Combined flakiness & elongation index		20 kg
Cement			
11	Cement (initial & final setting time, compressive strength)	IS 269, IS 8112, IS 12269	7 kg
Bricks			
12	Bricks (Set of Ten) (compression test, absorption test)	IS 1077-1986	10 nos.
Steel			
13	Steel bars (6 mm dia. to 20 mm dia.) (Area on weight basis. Yield Stress / 0.02% Proof Stress, Ultimate Tensile Strength, % Elongation)	IS 432 – 1986 IS 1786 – 2008	60 cm
14	Steel bars (above 20 mm dia.) (area on weight basis, yield stress / 0.02 % Proof stress, ultimate tensile strength, % elongation)	IS 432 – 1986 IS 1786 – 2008	60 cm
Concrete			
15	Concrete cube (compressive strength)	IS 456-2000, IS 516 – 1959	3 nos.
16	Concrete beam (Flexure test) (10x10x50 cm)	IS 456-2000, IS 516 – 1959	3 nos.
17	Concrete beam (Flexure test) (15x15x70 cm)		3 nos.
Tiles			

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S. No.	Description of Test	Reference Standard /	Quantity of Samples Required
18	Tile (Absorption test)	IS 1237-1980, IS 13801 – 1993	6 nos.
19	Tiles (Wet transverse strength test)	IS 1237-1980, IS 13801 – 1993	6 nos.
20	Tile (abrasion test)	IS 13630 Part 12-1993	As decided by Engineer-in-Charge
Wood			
21	Wood (Moisture content)	IS 287 – 1993 (Reaffirmed 1998) IS 11215-1991	As decided by Engineer-in-Charge
Cores			
22	CC Road core (Compression test)	IS 456-2000, IS 516 -1959	
RCC Covers			
23	RCC Cover & Dhapa testing	IS 12592 : Part I, 1998	
24	RCC Pipes (Hume pipes)		
25	Hume pipe testing	IS 3597 – 1998 (Minimum one pipe of each dia per lot
26	Up to 600 dia	Reaffirmed 2001),	
27	600 to 900 mm dia	IS458 -1988	
28	900 mm and above		
Concrete Paving Blocks			
29	Paver blocks (as per road department requirement)		
30	Compressive test		Up to 3 nos.
31	Water absorption test	BS 6717 – 1993	Up to 3 nos.
32	c)Flexure test	ASTMC936 IS	Up to 3 nos.
33	d) tensile splitting test	1237 BS 6717-2001	Up to 3 nos.
34	Paver blocks (as per road dept. requirement)	IS – 15658-2006	3 Nos.
35	Compressive test		8 Nos.
36	Water absorption		8 Nos.
37	Flexure test		8 Nos.
38	Tensile splitting test		8 Nos.
39	Abrasion test (dry condition)		As decided by Engineer-in-Charge

In addition to above IS codes for tests to be carried all equipments shall be made available to site testing laboratory required for testing all materials used at site or during construction works and as directed by Engineer-in-Charge or other appropriate authority appointed by GSCDL.

a) For examination and testing of materials and works at the site the Concessionaire shall provide all testing and gauging equipment necessary but not limited to the following:

- Theodolite
- Dumpy level
- Steel tapes
- Weighing machine
- Plumb bob, Spirit levels, Hammers
- Micrometers
- Thermometers, Stoves

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- Hydraulic test machine
 - Smoke test machine
- b) All such equipment shall be tested for calibration at any approved laboratory, if required by the Engineer-in-Charge.
- c) All testing equipment shall be preferably located in special room meant for the purpose.

C. Internal Civil Works

1. Earth excavation embankments & cuttings: Making up of plinths shall be carried out as per Sikkim PWD Specifications. Source of soil for filling purposes shall have to be got approved from the Engineer-in-Charge of work.
2. Compaction of Earth work: Compaction of earthwork shall be carried out as per Sikkim PWD Specifications. Earthwork excavation of foundations and filling of trenches and filling under floors as per Sikkim PWD Specifications.
3. Demolition: Demolition, if any involves shall be carried out as per Sikkim PWD Specifications.
4. Centering and Shuttering: Centering and shuttering shall be carried out as per Sikkim PWD Specifications.
5. Cement concrete for Ordinary structures: Cement concrete for ordinary structures shall be executed as per Sikkim PWD Specifications.
6. Reinforced concrete: For all works in super structure/ foundation 1:1.5:3 nominal mix by volume shall be used for achieving strength of M20 concrete. Only crushed coarse aggregates shall be used for concreting. Steel shall be high yield strength deformed bars conforming to IS – 1786 or TMT steel.
7. DPC: Item of D.P.C. shall be executed as per Sikkim PWD Specifications.
8. Precast Lintels: All lintels up to 7' in length in masonry work over doors and windows shall not be laid Cast-in-Situ but shall be precasted as per instruction of the Engineer-in-Charge and shall be hoisted and placed at appropriate level, during masonry work, lintels beyond 4'-6" length shall be laid in situ. Lintels will be casted over a pucca platform, and shall be cured for at least 10 days in a tank built at site and be dried completely before placing.
9. Brick Masonry: Wherever the brick masonry shall involve in the execution of work, the same shall be carried out as per Sikkim PWD Specifications. All the instructions regarding workmanship such as bond and laying, joints straightness, face work raking of joints and scaffolding etc. shall be followed as per the Sikkim PWD Specifications. The masonry shall be carried out in the cement mortar. Corbelling, Coping and Cornices shall be executed as per specifications. 4 ½" and 3" thick masonry partition walls. Partition walls shall be constructed as per Sikkim PWD Specifications.
10. Roofing and Water proofing treatments / drainage:
 - a) Rooftops shall be painted with bitumen, as per Sikkim PWD Specifications.
 - b) Laying brick bat coba water proofing of average 115 mm thick at terrace using cement mortar 1:3 arranging brick bats according to the slope, adding suitable water proofing compound for water tightness and again providing on top cement mortar 1:3 including addition of water proofing compound and finishing the top with neat cement @ 2.75 kg/m² and preparing the rough surface as per directed.
 - c) Water Proofing for Basement floor and surface: Providing & laying Box type waterproofing treatment to floors and external surfaces of underground structures. The treatment comprises of waterproofing layer, average 100 mm. thick for floors, using two layers of polished kota stones placed diagonally with cut joints Bottom layer of 15

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mm. thick 1:3 C.M. bedding with approved waterproofing chemical. 20 mm. to 25 mm. thick rough polished kota stone laid diagonally above the 1st layer with cut joints. Joints shall be sealed by 1:1 C.M. with approved waterproofing chemical. The above two layers shall be laid again, in the same manner as described above. The final layer of 30 mm. thick I.P.S. shall be laid with approved water proofing chemical having desired finish as directed including curing etc. complete on any surface, at all heights. The contractor to give testing for water tightness.

- d) Rain water pipes shall be fixed as per Sikkim PWD Specifications
 - e) Execution of top and bottom khurras and spouts shall be done as per Sikkim PWD Specifications.
 - f) Unless, otherwise specified, the normal bitumen felt waterproofing treatment shall be executed as per Sikkim PWD Specifications.
 - g) Wherever required the water proofing of roofs shall be as per manufactures specifications approved by the Engineer-in-Charge.
11. Floorings and Dados: Various types of flooring and dados shall be executed as per Sikkim PWD Specifications, as detailed below:

Flooring and Dados Specifications

S. No.	Item
1	White glazed ceramic Tile flooring
2	Marble flooring
3	Polished kota stone flooring
4	Rough Polished kota stone flooring
5	Vitrified Tile flooring
6	Granite Stone flooring
7	Ironite flooring/Cement Concrete Flooring with Metallic Hardener Topping
8	Granite Tile flooring
9	Trimix flooring

Polished kota stone flooring shall be carried out as Sikkim PWD building Specifications. Polished kota stone shall be as per direction of Engineer-in-Charge. Dados: Polished kota stone or Vitrified tile dado shall be executed as per the relevant specification of Sikkim PWD building Specifications. Skirting (3/4" thick) of Polished kota stone shall be executed as per the relevant specification of Sikkim PWD building Specifications. Granite Stone shall be executed as per the relevant specification of Sikkim PWD building Specifications. Vitrified tile shall be executed as per the Sikkim PWD building Specifications. Ironite flooring/ Cement Concrete Flooring with Metallic Hardener Topping shall be executed as per the relevant Sikkim PWD building Specifications. Granite tiles shall be executed as per Sikkim PWD building Specifications. Trimix flooring shall be executed as per Sikkim PWD building Specifications of pavement in material Specification.

- 12. Cupboard Shutters: Cupboard shutters shall be wooden as per Sikkim PWD building Specifications.
- 13. Door Shutters: All door shutters shall be 40 mm thick wooden with 12 mm thick panels of waterproof as per Sikkim PWD building Specifications
- 14. Windows Shutters: Window shutters shall be 35 mm thick of wooden having glass panes as per Sikkim PWD building Specifications. Wire gauge shutters should be provided wherever required.
- 15. Wire gauge Shutters: Wire gauge shutters shall be as per Sikkim PWD building Specifications.

16. Doors, Windows and Shutters Other than Wooden

Specifications for Doors, Windows and Shutters other than Wooden

a	Aluminium door, windows and ventilators	As per IS 1948-1961 & IS 1949-1961 and Sikkim PWD building Specifications
b	Collapsible gates	As per IS 10521-1983 and Sikkim PWD building Specifications
c	Steel rolling shutters	As per IS 6248-1979 and Sikkim PWD building Specifications
d	Steel door frames	As per IS 4351-1976 and Sikkim PWD building Specifications
e	Steel doors, windows and ventilators	As per IS 1038-1983 & Sikkim PWD building Specifications
f	Pressed steel <i>chowkhats</i>	Sikkim PWD building Specifications

Factory made pressed steel chowkhats shall be manufactured out of 16 gauge M.S. Sheet (1.25 mm thick) cutting bending straightening and finishing shall be mechanical and not manual. Chowkhats shall be framed with 6mm fillet seam welding. The pressed steel chowkhats shall be provided with two coats of steel primer and the chowkhats cavity shall be filled with 1:2:4 concrete, prior to fixing at site.

17. Plastering, Pointing and Rendering: Cement plaster will be executed in the specified mortars as per Sikkim PWD building Specifications. For cement rendering and for cement pointing Sikkim PWD building Specifications shall be followed.

18. Painting, White washing and Distempering: These items shall be executed as per Sikkim PWD building Specifications. Painting and varnishing works shall be executed as per Sikkim PWD building Specifications. Painting on Plastered/ Concrete Surface: The plastered surface above dado as per relevant Specification of Sikkim PWD building Specifications. Only first quality paint/ emulsion shall be used. The item shall be executed as per Sikkim PWD building Specifications of painting. Painting Wooden Surfaces shall be painted with first quality approved brand of paint and execution of item shall be carried out as per Sikkim PWD building Specifications. Painting Iron and Steel Work: Iron and Steel Works shall be painted as per Sikkim PWD building Specifications. The first coat shall be applied of red oxide primer of first quality. The subsequent coats shall be of approved shade and approved brands of first quality paints. White Washing shall be executed as Sikkim PWD building Specifications and Colour washing shall be executed as per Sikkim PWD building Specifications. Oil Bound distempering for internal finishing shall be executed as per Sikkim PWD building Specifications. Cement based paints: Cement based paints of approved make and shade shall be executed as per relevant specifications.

19. Cement Concrete Road works: Latest edition of MoRTH specifications shall be followed for road works.

20. Expansion Joints: Expansion Joints shall be provided in the buildings wherever required. The conditions for providing expansion joints are as under:

- i. Where the length of the building blocks exceed 50 meters.
- ii. All the components such as ramps stain links of corridors with the main building.
- iii. In case of provision for horizontal further expansion be provided.
- iv. In case of level difference exceeding 1.8 mts.

Type of expansion joints:

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- i. In case of larger blocks framed shutters, only double column, double beam expansion joints shall be provided:
- ii. In case of masonry blocks double beam expansion joints will be provided along with expansion joints on walls.
- iii. In case of connecting link corridors cantilever type of expansion joints will be provided. These joints shall be maintained in the flooring itself preferably or will be covered with 300 mm wide separate piece of flooring material specified.

Expansion Joints in the wall shall be covered from inside with 14 gauge aluminum sheet 150 mm wide fixed with appropriate fastener on one side of the wall. In no case bracket type expansion joints will be provided.

D. External Civil Works

1. Jungle Clearance: Clearing of weeds, shrubs, brushwood and congress grass under this item shall be removed by roots. Tree shall not be cut. The item shall be executed as per Sikkim PWD Specifications.
2. Grit: The crushed aggregates for mix seal surfacing shall be blended in the requirement ratio or achieving the proper gradation as per MoRTH specification. The individual size of the grit should also be conforming to MoRTH, specification.

List of Approved Makes to be used for the Project

S. No.	Description	Makes ¹
1	Tiles	
1a	White Glazed Tiles	RAK / Johnson / Somany / Kajaria or equivalent
1b	Vitrified tiles	RAK / Johnson / Somany / Kajaria or equivalent
1c	Granite tiles	RAK / Johnson / Somany / Kajaria or equivalent
2.	Flush doors and plywood products	
3.	Steel doors & windows	TATA / SAIL Steel, Cuirass, or equivalent
4.	Rolling shutters & grills	TATA / SAIL Steel, or equivalent
5.	Aluminium door & window sections	Kalco / Milgard / ClimateGuard or equivalent
6.	Water proofing compounds	Dr.Fixit / Tikitar / Dubond or equivalent
7.	Paints & Distempers	Asian / Berger / Dulux or equivalent
8.	Redoxide	Berger / Asian Paint / Dulux or equivalent
9.	Water proofing cement paint	Dr. Fixit / Durabuild / Rainguard or equivalent
10.	Glass	Saint Gobain / Asahi / Modiguard or equivalent
11.	Pressed Steel Sections	Jindal / Kamdhenu or equivalent
12.	Reinforcing Steel	TATA / SAIL or equivalent
13.	Cement	(43,53 Grade) Ambuja / Ultratech / ACC or equivalent
14.	Structural Steel Sections	Jindal / Kamdhenu or equivalent
15.	Z Sections	Jindal / Kamdhenu or equivalent
16	Cup boards	Use best quality of marine ply or equivalent as directed by Engineer-in-Charge
17	Water Supply Pipes & its accessories	(Medium with high quality fibre with ISI Mark) Esco / Jaguar / Prince / Astral / Finolex / Supreme or equivalent
18	Fire extinguishing systems	Omex / Lifeguard / Ceasefire / Agni or equivalent

¹ The Authority to provide a list of approved makes

S. No.	Description	Makes¹
19	Sanitary wares	Jaguar / Hindware / Simpolo / Cera or equivalent
20	Wire	(Fire Proof) Havells , Polycab. KEI Universal, Finolex or equivalent
21	Switches/Socket	MK / Crabtree / Legrand or equivalent

Note: The above list is indicative but not exhaustive.

TECHNICAL SPECIFICATIONS – PUBLIC HEALTH AND FIRE FIGHTING WORKS

A. General Technical Conditions

1. Scope of Work

- a) Work under this section shall consist of furnishing all materials, equipment and applicable necessary and required to completely furnish all the plumbing and other specialized services as described herein.
- b) Without restricting to the generality of the foregoing the sanitary fixtures shall include the following:
 - Sanitary Fixtures
 - Soil, waste, rainwater and vent pipes Water supply (internal and external)
External sewerage system
 - Storm water drainage system
- c) The Concessionaire must get acquainted with the proposed site for the works and study specifications carefully.
- d) Works area shall be as per finalized and approved drawings from the Engineer-in-Charge.

2. Specifications

- a) Work under this section shall be carried out strictly in accordance with specifications.
- b) Items not covered under these specifications due to any ambiguity or misprints, or additional works, the work shall be carried out as per the Sikkim PWD Specifications.
- c) Works not covered under 2.a and 2.b shall be carried out as per relevant Indian Standards specifications or codes of practice or as per directions of Authority.

3. Execution of Work

- a) The work shall be carried out in conformity with Architectural, HVAC, Electrical, plumbing, Structural, and other specialized services.
- b) The Concessionaire shall make provision for hangers, sleeves, structural openings and other requirements well in advance to prevent hold up of progress of construction programme.
- c) On award of the concession, the Concessionaire shall submit a programme of construction in the form of a PERT chart or bar chart for approval of the Engineer-in-Charge. All the dates and time Chapter agreed upon shall be strictly adhered to, within the stipulated time of completion / commissioning along with the specified phasing, if any.

4. Drawings

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- a) Plumbing drawings would be diagrammatic and shall be followed as closely as actual construction permits. Any deviations made shall be in conformity with the Architectural drawings.
- b) Architectural drawings shall take precedence over plumbing or other services drawings as to all dimensions.
- c) Concessionaire's shall verify all dimensions at site and bring to the notice of the Engineer-in-Charge of works all discrepancies or deviations noticed. The Engineer-in-Charge decision shall be final.
- d) Large size details and manufacturers dimension for materials to be incorporated shall take precedence over small-scale drawings.

B. Inspection and testing of materials

- a) The Concessionaire shall be required, if requested to produce the manufacturers' test certificate for the particular batch of materials supplied by him. The test carried out shall be as per the relevant Indian Standards.
 - b) For examination and testing of materials and works at the site the Concessionaire shall provide all testing and gauging equipments necessary but not limited to the following:
 - Theodolite
 - Dumpy level
 - Steel tapes
 - Weighing machine
 - Plumb bob, Spirit levels, Hammers
 - Micrometers
 - Thermometers, Stoves
 - Hydraulic test machine
 - Smoke test machine
 - c) All such equipment shall be tested for calibration at any approved laboratory, if required by the Engineer-in-Charge.
 - d) All testing equipment shall be preferably located in special room meant for the purpose.
1. Metric conversion
 - a) All dimensions and sizes of materials and equipment given in the specifications are commercial metric sizes.
 - b) Any weights or sizes given in the specification having changed due to
 - c) metric conversion, the nearest equivalents sizes accepted by Indian Standards shall be acceptable without any additional cost.
 2. Reference points
 - a) The Concessionaire shall provide permanent benchmarks, flag tops and other reference points for the proper execution of work and these shall be preserved till the end of the work.
 - b) All such reference points shall be in relation to the levels and locations given in the Architectural and plumbing drawings (to be detailed out by the Concessionaire).
 3. Reference Drawings
 - a) The Concessionaire shall maintain one set of all drawings issued to him as reference drawings. These shall not be used on site.

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- b) All corrections, deviations and changes made on the site shall be shown on these reference drawings for final incorporation in the completion drawings. All changes to be made shall be initiated by the Engineer-in-Charge. These will then form the —As-Built Drawingsl
4. Shop Drawings
- a) The Concessionaire shall submit to the Engineer-in-Charge four copies of the shop drawings. Shop drawings shall be submitted under following conditions:
- Showing any changes in layout in the plumbing drawings
 - Equipment layout and piping, wiring diagram
 - Manufacturer's or Concessionaire's fabrication drawings for any materials or equipment supplied by them.
- b) The Concessionaire shall submit four copies of catalogues, manufacturer's drawings. Equipment characteristic data or performances charts as required by the Engineer-in-Charge.
5. Completion Drawings
- a) On completions of work the Concessionaire shall submit one complete sets of original tracings and two prints of —as builtl drawings to the employer. These drawings shall have the following information:
- Run of all piping and diameters on all floors and vertical stacks.
 - Ground and invert levels of all drainage pipes together with location of all manholes and connections upto outfall
 - Run of all water supply lines with diameters, locations, of control valves, access panels
 - Locations of all mechanical equipment with layout and piping connections.
- b) The Concessionaire shall provide four sets of catalogues performances data and list of spare parts together with the name and address of the manufacturer for all electrical and mechanical equipment provided by him.
6. Testing
- a) Piping and drainage works shall be tested as specified under the relevant clauses of the specifications.
- b) Tests shall be performed in the presence of the Engineer-in-Charge.
- c) All materials and equipments found defective shall be replaced and whole work tested to meet the requirements of the specifications.
- d) The Concessionaire shall perform all such tests as may be necessary and required by the local authorities to meet Municipal or other bye-laws in force.
- e) The Concessionaire shall provide all labour, equipment and materials for the performances of the tests.
7. Site Clearance and Clean up
- a) The Concessionaire shall, from time to time clear away all debris and excess materials accumulated at the site
- b) After the fixtures, equipments and appliances have been installed and commissioned, the Concessionaire shall clean up the same and remove all plaster, paints, stains, stickers and other foreign matter of discoloration leaving the same in a ready to use condition

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- c) On completion of all works, the Concessionaire shall demolish all stores, remove all surplus materials and leave the site in a broom clean condition
8. License and Permit
 - a) The Concessionaire must hold a valid plumbing licenses issued by the Municipal Authority or other Government Agency under whose jurisdiction the work falls
 - b) The Concessionaire must keep constant liaison with the Government Agency and obtain approval of all drainage and water supply works carried out by him.
 - c) The Concessionaire shall obtain, from the Government Agency certificates with respect to his work as required for occupation of the building.
 - d) All inspection fees or submission fees should be paid by the Concessionaire.
9. Cutting and Making good

No structural member shall be chased or cut without the written permission of the Engineer-in-Charge.
10. Materials
 - a) All materials used in the works shall conform to the tender specification.
 - b) As far as possible materials bearing BIS certification marks shall be used with the approval of the Engineer-in-Charge.
 - c) Unless otherwise specified and expressly approved in writing by the Engineer-in-Charge, materials of makes and specifications mentioned with technical specification shall be used.
11. Mock up
 - a) The Concessionaire shall install all pipes, fixtures, clamps and accessories and fixing devices in mock up shaft and room so constructed as directed by the Engineer-in-Charge without any cost. The materials used in the mock up may be reused in the works if found undamaged.
 - b) Any tiles or finished surfaces or floors damaged by the Concessionaire while doing his work shall be made good with new tiles or other finishing material.

TECHNICAL SPECIFICATIONS - SANITARY FIXTURES

A. Scope of Work

- a) Work under this section shall consist of furnishing all material and labour as necessary and required to completely install all sanitary fixtures, brass and chromium plated fittings and accessories, as specified hereinafter.
- b) Without restricting to the generality of the foregoing the sanitary fixtures shall include all sanitary fixtures, C.P. fittings and accessories etc. necessary and required for the building.
- c) Whether specifically mentioned or not all fixtures and appliances shall be provided with all fixing devices, nuts, bolts, and screws, hangers as required.

B. General Requirements

- a) All fixtures and fittings shall be provided with all such accessories as are required to complete the item in working condition
- b) All fixtures and accessories shall be fixed in accordance with a set pattern matching the tiles of interior finish. Whether necessary the fittings shall be centered to dimensions and pattern desired.

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- c) Fixing screws shall be half round head chromium plated brass with C.P. washers wherever required as per direction of the Engineer-in-Charge.
 - d) All fittings and fixtures shall be fixed in a neat workmanlike manner true to levels and heights and in accordance with the manufacturer's recommendations. Care shall be taken to fix all inlet and outlet pipes at correct positions. Faulty locations shall be made good and any damage to the finished floor, tiling or terrace shall be made good by the Concessionaire.
 - e) When directed the Concessionaire shall install fixtures and accessories in a mock-up room for the approval of the Engineer-in-Charge. Sample room fixtures may be reused on the works if undamaged.
1. Indian W.C.
 - a) Indian W.C. pan shall be Orissa pattern of size. Each WC shall be provided with a 100 mm diameter cast iron of porcelain P or S traps with or without vent horn.
 - b) W.C. shall be flushed by means of a C.I. high level flushing cistern or low-level cistern of polyethylene body complete with accessories or with 32 mm diameter C.P. flush valve.
 2. Anglo Indian W.C.
 - a) Anglo Indian W.C. shall be wash down type P or S trap set.
 - b) Each Anglo Indian W.C. set shall be provided with a solid plastic seat, rubbers buffers and chromium-plated hinges.
 - c) Plastic seat shall be so fixed that it remains absolutely stationery in vertical position without falling down on the W.C.
 - d) Each Anglo Indian W.C. shall be flushed with porcelain flushing cistern or an exposed or concealed type flush valve. Flush pipe/bend shall be connected to the W.C. by means of a suitable rubber adapter. 25 % of total W.C are Indian W.C
 3. European W.C.
 - a) European W.C. shall be wash down single or double siphonic type floor or wall mounted and flushed by means of porcelain low level flushing cistern or the exposed or concealed type flush valve. Flush pipe/bend shall be connected to the W.C. by means of suitable rubber adapter. Wall hung W.C. shall be supported by C.I. floor mounted chair. 50 % of total W.C are Indian W.C
 - b) Each W.C. seat shall be so fixed that it remains absolutely stationery in vertical position without falling down on the W.C.
 4. Urinals
 - a) Urinals shall be lipped type half stall white glazed vitreous China of approximate Size 630 x 420 x 380 mm size.
 - b) Half stall Urinals shall be provided with 15 mm diameter C.P. spreader, 32 mm diameter C.P. domical waste and C.P. brass bottle trap with pipe and wall flange and shall be fixed to wall by one C.I. bracket and two C.I. wall clips as recommended by manufacturers' or as directed by the Engineer-in-Charge.
 - c) Half stall urinals shall be fixed with C.P. brass screws and shall be provided with 32mm diameter domical waste leading to urinals trap.
 - d) Urinals shall be flushed by means of automatic porcelain flushing cistern or exposed or concealed type urinal flush valve, as specified in manual flushing system.
 - e) Flush valve for urinal shall be provided
 - f) Flush pipes of flushing cistern with sizes of main and branch flush pipe shall be as follows:

Flush Pipes Sizes

No. of urinals in Range	Capacity of cistern litres	Size of main flush pipe	Size of branch flush pipe	Size of connection urinal
One	5	-	-	15
Two	10	20	-	15
Three	10	25	-	15

g) Alternatively, Urinals may be flush with flush valves, exposed or concealed type.

h) Waste pipes for urinals shall be any one of the following:

- G.I. pipe
- Rigid P.V.C
- U. P.V.C. or PE pipes

i) Waste pipes may be exposed on wall or concealed in chase. Specifications for waste pipes shall be same as given in Sikkim PWD Specifications

5. Lavatory Basin

- a) Lavatory basins shall be white glazed vitreous china or poly marble of size, shape and type specified in the bill of quantities.
- b) Each basin shall be provided with R.S. or C.I. bracket and clips and the basin securely fixed to wall. Placing of basins over the brackets without secure fixing shall not be accepted.
- c) Each basin shall be provided with 32mm diameter C.P. brass bottle trap with C.P. pipe to wall and flame.
- d) Each basin shall be provided with fittings or mixing fittings.
- e) Basins shall be fixed at proper heights.

6. Sinks

- a) Sinks shall be of stainless steel.
- b) Each sink shall be provided with R.S. or C.I. brackets and clips and securely fixed.
- c) Counter top sinks shall be fixed with suitable angle iron clips or brackets as recommended by the manufacturer. Each sink shall be provided with 40mm diameter C.P. waste with chain and plug or P.V.C. waste. Fixing shall be done as directed by the Engineer-in-Charge.
- d) Fittings for supply to sinks shall be C.P. brass single hole mixing fitting with swinging spout for hot and cold water and C.P. brass swan neck tap swinging spout for cold water supply.

7. Mirrors

- a) Mirrors shall be electro coated copper 5.5 mm thick of guaranteed reputed make.
- b) The image shall be clear and without waviness at all angles of vision.
- c) Mirrors shall be provided with backing of 12 mm thick 6mm thick cement asbestos sheet fixed with C.P. brass semi round-headed screws and cup washers or C.P. brass clamps as specified or instructed by the Engineer-in-Charge.

8. Shower set

- a) Shower set shall comprise of one/two C.P. brass concealed stop cocks with two long body brass/C.P. brass bid cock, or bath spout.
- b) Each shower set shall also be provided with C.P. shower arm with wall flange and showerhead of approved quality.
- c) Concealed stopcocks shall be so fixed as to keep the wall flange clear off the finished wall. Wall flanges embedded in the finishing of wall shall not be accepted.

9. Accessories

- a) The Concessionaire shall install all chromium plated and porcelain accessories or as directed by the Engineer-in-Charge.
- b) All C.P. accessories shall be fixed with C.P. brass half round head screws and cup washers in wall with raw plugs or nylon sleeves and shall include cutting and making good as required or directed by the Engineer-in-Charge.
- c) Porcelain accessories shall be fixed in walls and set in cement mortar 1:2 (1 cement:2 coarse sand) and fixed in relation to the tiling work.

10. Urinal Partitions

- a) Urinal partitions shall be white glazed vitreous china or 25mm thick marble of size.
- b) Porcelain partitions shall be fixed at proper height with C.P. brass bolts, anchor fasteners and M.S. clip as recommended by the manufacturer and directed by the Engineer-in-Charge.

TECHNICAL SPECIFICATIONS – SOIL, WASTE & VENT PIPES

A. Scope of work

- a) Work under this section shall consist of furnishing all labour, materials, equipment and appliances necessary and required to completely install all soil, waste, vent and rainwater pipes.
- b) Without restriction to the generally of the foregoing, the soil, waste, vent and rainwater pipes system shall include the followings:
 - Vertical and Horizontal soil, waste and vent pipes, rainwater pipes
 - & fittings, joint clamps and connections to the fixtures
 - Connections of pipes of gully traps and manholes etc.
 - Floor and urinal traps, cleanout plugs, inlet fittings and rainwater head as specified.
 - Waste pipes connections from all fixtures e.g. wash basins, sinks, urinals, and kitchen equipments.
 - Testing of all pipes.

B. General Requirements

- a) All materials shall be new of the best quality conforming to specifications and subject to the approval of the Engineer-in-Charge.
- b) Pipes and fittings shall be fixed truly vertical, horizontal or in slopes as required in a neat workman like manner.
- c) Pipes shall be fixed in a manner as to provide easy accessibility for repair and maintenance and shall not cause obstruction in shafts, passages etc.
- d) Pipes shall be securely fixed to walls and ceiling by suitable clamps at intervals specified.
- e) Access doors for fitting and cleaning shall be so located that they are easily accessible for repair and maintenance.
- f) All works shall be executed as directed by the Engineer-in-Charge.

1. Cast iron pipes and fittings

a) Cast Iron Pipes

- i. Soil, waste, vent anti-symphonize and rainwater pipe shall be cast iron pipes/UPVC.
- ii. All pipes shall be straight and smooth and inside free from irregular bore, blow holes cracks and other manufacturing defects. Pipes shall be centrifugally spun iron soil pipes conforming to IS: 3989-1970, or sand cast IS: 1729-1967.
- iii. Standard weight, dimensions and pig lead required for joints shall be as follows: For pipes conforming to IS: 3989-1970 (centrifugally spun soil pipes).

Pipe Joints Sizes and Weights

Nominal (inch)	Diameter (mm)	Thickness (mm)	Overall Weight 6' length or 1.83m (kg)	Internal diameter of socket (mm)	Depth of lead (mm)
2	50	3.5	8.5	73	25
3	75	3.5	12.7	99	25
4	100	4.0	19.2	126	25
6	150	5.0	35.5	178	38
For conforming to IS 1729-1967 (sand cast iron soil pipes and fittings)					
2	50	5	11.41	76	25
3	75	5	16.52	101	25
4	100	5	21.67	129	25
6	150	5	31.91	181	38

iv. Tolerance

Acceptable tolerance for pipes to I.S. 3989 and ISI 1729 shall be as follows:

- Wall thickness -15%
- Length +20mm
- Weight -10%

b) Fittings

- i. Fittings shall conform to the same Indian Standard as for matching Concessionaire use pipes and fittings of matching specifications.
- ii. Fittings shall be of the required degree of curvature with or without access doors.
- iii. Access door shall be made up with 3mm thick insertion rubber washer and white lead. The bolts shall be lubricated with grease or white lead for easy removal later. The fixing shall be air and water tight.

c) Fixing

- i. All vertical pipes shall be fixed by M.S. clamps truly vertical. Branch pipes shall be connected to the stack at the same angle as that of the fittings. No collars shall be used on vertical stacks. Each stack shall be terminated at top with a cowl. (Terminal Guard).
- ii. Horizontal pipes running along ceiling shall be fixed on structural adjustable clamps of special design shown on the drawings or as directed. Horizontal pipes shall be laid to uniform slope and the clamps adjusted to the proper levels so that the pipes fully rest on them.

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iii. The Concessionaire shall provide all sleeves, openings, hangers, and inserts during the construction. All damages shall be made good to restore the surface.

d) Cast iron pipes for drainage

i. All drainage lines passing under building, floors and roads, in exposed position above ground or at basement ceiling level shall be C.I.L. A pipes position of such pipes shall be generally shown either on ground level drawing or ceiling of basement.

ii. Cast iron pipes shall be centrifugally spun iron pipes conforming to I.S. 1536-1967.

iii. Quality certificates shall be furnished.

iv. Fittings and Inspection Chambers:-

- Fittings used for C.I. drainage pipe shall conform to ISI 1538-1967. Junction from branch pipes shall be made by Y, T.
- The Concessionaire shall provide cast iron inspection chamber at all junction. Inspection chamber shall be specially cast with inlet, outlet and branches or appropriate and required sizes.
- Cleanout plugs shall be provided on head of each drain. Cleanout plugs shall be of size matching the full bore of the pipe. Plugs shall be made out with G.I. coupling caulked into the socket of the pipe or fittings. The end shall be provided with a brass screwed plug with suitable key for opening.

e) Laying

All cast iron pipes and fittings shall be joined with best quality soft pig lead, which shall be free from impurities. In wet trenches joints shall be made from lead wool. Nothing extra shall be paid for lead wool joints. Depth of the pig lead and weight for joints shall be as given in this section above.

- The spigot of pipe fittings shall be centered in the adjoining socket by caulking.
 - Sufficiently turns of tarred gaskin will be given to leave unfilled depth of socket for depth of 45mm when the gaskin has been caulked tightly barrel and against the face of the socket. Molten pig lead shall then be poured to fill the remainder of the socket. The lead shall then be solidly caulked with suitable tools and hammer weighting not.
- For lead wool joints the socket shall be caulked with tarred gaskin, as explained above. The lead wool shall be inserted into the sockets and tightly caulked home skein with suitable tools and hammer of not less than 2 kg weight until joint is filled.

f) Testing: All cast iron pipes for drainage shall be tested to a hydraulic test of 3- meter head. Test for straightness shall be same as for stoneware pipe. A test register shall be maintained which shall be signed and dated by the Concessionaire, and representative of the Engineer-in-Charge.

2. Clamps

- a) M.S. clamps shall be of standard design and fabricated from M.S. flat 40x3mm thick.
- b) They shall be painted with two coats of black bitumen paint before fixing.
- c) Where M.S. clamps are to be fixed on RCC columns or slotted angles, walls or beam they shall be fixed with 40x3mm flat iron —Ull type clamps with anchor fasteners of approved design or 6mm nuts and bolts.
- d) Structural clamps shall be fabricated from M.S. structural members e.g. rods, angles, channels flats. The Concessionaire shall provide all nuts bolts, welding material and

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paint the clamps with one coat of red oxide and two or more coats of black enamel paint. Wooden saddles, where required shall be provided free of cost.

- e) Slotted angle/channel supports on walls shall be provided. Angles/channels shall be fixed to brick walls with bolts embedded in cement concrete blocks and to RCC walls with suitable anchor fasteners. The spacing of support bolts horizontally shall not exceed 1m.
- f) Wherever M.S. clamps are required to be anchored directly to brick walls, concrete slabs, beams of columns, nothing extra shall be payable for clamping arrangement and making good with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 mm stone aggregate 20mm nominal size).

3. Traps

- a) Nahni Traps or Floor Traps

Nahni Traps or floor traps shall be cast iron, deep seal with an effective seal of 50mm. The trap and waste pipes shall be set in cement concrete blocks firmly supported on the structural floor. The blocks shall be in 1:2:4 mix (1 cement:2 coarse sand:4 stone aggregate 20 mm nominal size) and extended to 40 mm below finished floor level. The Concessionaire shall provide all necessary shuttering and centering for the blocks. Size of the block shall be 30x30cms of the required depth.

- b) Urinal Traps

Urinal Traps shall be cast iron P or S trap with or without vent and set in cement concrete blocks specified above without extra charge. Vitreous china channel with Openable cover shall be provided under the urinals.

- c) Floor Trap inlet

Bathroom traps and connections shall ensure free and silent flow of discharging water. Where specified, the Concessionaire shall provide a special type cast iron inlet hopper without or with one, two or three inlet sockets to receive the waste pipes. Joint between waste and hopper inlet socket shall be lead caulked joint. Hopper shall be connected to a C.I. P. or S. trap with at least 50mm seal (Hopper and traps shall be paid for separately) floor trap inlet hoppers and the trap shall be set in cement concrete blocks as specified above without extra charge.

- d) C.P. /Stainless Steel Gratings

Floor and urinal traps shall be provided with 100, 150 mm square or round C.P. / Stainless steel grating with frame of approval design and shape. Minimum thickness shall be 4-5 mm or as specified in the bill of quantities.

4. Jointing

Soil waste vent and rainwater pipes shall be jointed with refined pig lead conforming to IS 27-1977. A sufficient skein or jute rope shall be caulked to leave a minimum space for the pig lead as given in Sikkim PWD Specifications /CPWD Specifications to pour in. After pouring the lead shall be caulked in the joint with request caulking tool and hammer. All surplus lead shall be cut and joint left 460 with rim of the socket neatly.

5. Cleanout Plugs

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The Concessionaire shall provide cast brass cleanout plugs as required cleanout plugs shall be threaded and provided with keyholes for opening. Cleanout plugs shall be fixed to the pipe by a G.I. socket and lead caulked joint.

6. Waste Pipe from Appliances

- Waste pipe from appliances e.g. washbasins, sinks, urinals, bathtubs,
- water coolers shall be of galvanized steel, lead or PVC.
- All pipes shall be fixed in gradient towards the outfalls of drains. Pipes inside a toilet room shall be in chase. Where required pipes may be run at ceiling level in suitable gradient and supported on structural clamps. Spacing for clamps for such pipes shall be as follows:

Pipe wise Spacing for Clamps

Pipes	Vertical Spacing (cm)	Horizontal Spacing (cm)
G.I. Pipes	300	240
P.V.C. Pipes	180	120
Lead pipes	120	120

a) Galvanized Pipes

Pipes shall be galvanized steel tubes, conforming to I.S.: 1239-1979 (medium class) and quality certificates shall be furnished. Pipes shall be provided with all required fittings e.g. Tees, couplings, bends, elbows, Unions, Reducers, Nipples, Plugs. All G.I. waste pipes shall be terminated at the point of connection with the appliance with an outlet of suitable diameter.

b) Lead Pipes

- i. Where specified, lead pipes shall be used for waste and connections to anti-siphonage pipes and W.C. connections.
- ii. Lead pipes shall be seamless drawn pipes conforming to IS. 404 (part-I) 1977. Weight and wall thickness shall be as follows:

Weight and Wall Thickness Details for Lead Pipes

Nominal I/D (mm)	Wall Thickness	Wt. Kg/m
32	2.6	3.28
40	2.6	3.95
50	2.7	5.07
75	2.7	7.48
100	2.7	9.88

- iii. Lead pipes shall be straightened by wooden mandrel and bent to required shape by filling sand. Connection between appliance, stacks or traps shall be made with solder joints. Solder shall be 64% lead and 36% pure tin. All lead waste pipes in exposed positions shall be painted with one coat of red primer and two or more coats of synthetic enamel paint of approved quality and shade.

7. Polyethylene Pipes

- a) Where specified, polythene pipes shall be high-density polythene pipe conforming to IS: 4984-78. The details of the nominal outer diameter, weight and working pressure

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at 20 degree C shall be as per the above standards or as per manufacturers specifications subject to approval of the Engineer-in-Charge.

- b) Polythene pipes may be cold bending to a radius of not less than eight times of their external diameter. Pipes bent for smaller radius may be made by not bending.
- c) Fittings used for polythene pipes shall be compression moulded fittings matching to the above specifications or for higher diameter, fabricated as per required specifications.
- d) Jointing
 - Jointing and fixing for polythene pipes shall be made as per manufacturer's specifications but generally by means of butt welding or detachable nuts or flanged joints or screwed joints. The type of joint shall be used as per the site conditions. The ultimate finish of pipe shall be complete as directed by the Engineer-in-Charge.
 - All pipes shall be tested after installation for a pressure equal to twice the maximum working pressure in the line.

8. Cement Concrete

Cast iron soil and waste pipes under floor, in concrete slabs and in wall chases (When cut specially for the pipe) shall be encased in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 stone aggregate 20mm size) 75 mm in bed and all- round. When pipes are running well above the structural slab, the encased pipes shall be supported with suitable cement concrete pillars of required height and size of intervals as directed by the Engineer-in-Charge.

9. Painting

- a) H.C.I. soil waste vent and rainwater pipes in exposed location, in shafts and pipe spaces shall be painted with two or more coats of synthetic enamel paint to give an even shade.
- b) Paint shall be of approved quality and shade where directed pipes shall be painted in accordance with approved pipe colour code.
- c) Waste pipes in chase shall be painted with two coats at bitumen paint, covered with polythene tape and a final coat of bitumen paint. Exposed pipes shall be painted with two or more coats or synthetic enamel paint.
- d) C.I. soil and waste pipes below ground and covered in cement concrete or lead pipes shall not be painted.

10. Cutting and Making Goods

Pipes shall be fixed and tested as building proceeds. The Concessionaire

shall provide all necessary holes cut outs and chases in structural as building works proceeds. Wherever holes are cut or left originally, they shall be made good with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 stone aggregate 20 mm nominal size) or cement mortar 1:2 (1 cement: 2 coarse sand) and the surface restored as in original condition.

11. Testing

- a) Before use at site all C.I. soil pipes shall be tested by filling up with water for at least 10 minutes. After filling, pipes shall be struck with a hammer and inspected for blowholes and cracks. All defective pipes shall be rejected and removed from the site within 48 hours. Pipes with minor sweating shall be accepted at the discretion of the Engineer-in-Charge.

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- b) Pipes shall be tested after installation, by filling up the stack with water. All openings and connections shall be suitable plugged. The total head in the stack shall however not 3m exceed.
- c) Alternatively, the Concessionaire may test all soil and waste stacks by a smoke testing machine. Smoke shall be pumped into the stack after plugging all inlet and connections. The top end shall however be left open. The stack shall then be observed for leakage and all defective pipes and fittings removed or repaired as directed by the Engineer-in-Charge.
- d) A test register shall be maintained and all entries shall be signed and dated by the Concessionaire and the Engineer-in-Charge.

TECHNICAL SPECIFICATIONS- EXCAVATION AND PIPELINES

1. Excavation

The excavation for pipe works shall be open cutting unless the permission of the Engineer-in-Charge for the ground to be tunneled is obtained in writing. Where sewers have to be constructed along narrow passages, the Engineer-in-Charge may order the excavation to be made partly in tunnel and in such cases the excavated soil shall be brought back later on for refilling the trenches or tunnel.

2. Opening out Trenches

In excavation the trenches, etc. the solid road metaling, pavements, curbing etc. and turf is to be placed on one side and preserved for reinstatement when the trenches or other excavation shall be filled up. Before any road metal is replaced, it shall be carefully shifted. The surface of all trenches and holes shall be restored and maintained to the satisfaction of the Engineer-in-Charge and of the owners of the roads or other property traversed and the Concessionaire shall not cut out or break down and live fence of trees in the line of the proposed works but shall tunnel under them, unless the Engineer-in-Charge shall order to the contrary.

The Concessionaire shall grub up and clear the surface over the trenches and other excavations of all trees, stumps roots and all other encumbrances effecting execution of the work and shall remove them from the site to the approval of the Engineer-in-Charge.

3. Obstruction of Roads

The excavation for pipe works shall be open cutting unless the permission of the Engineer-in-Charge for the ground to be tunneled is obtained in writing. Where sewers have to be constructed along narrow passages, the Engineer-in-Charge may order the excavation to be made partly in tunnel and in cases the excavated soil shall be brought back later on for refilling the trenches or tunnel.

4. Removal of Filth

All night soil, filth or any other offensive matter met with during the execution of the works, immediately removed after it is taken out of any trench, sewer or cess pool, shall not be deposited on to the surface of any street or where it is likely to be a nuisance or passed into any sewer or drain but shall be at once put into the Carts and removed to a suitable place to be provided by the Concessionaire.

5. Excavation to be taken to Proper Depths

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The trenches shall be excavated to such a depth that the pipes shall rest on concrete or on firm bedding as described in the several clauses relating to these to so that the inverts may be at the levels given in the sections. In bad ground the Engineer-in-Charge may order the concessionaire to excavate to a greater depth and to fill up the excavation to the level of the sewers with concrete, broken stone, gravel or other materials.

6. Refilling

After the pipes or other work has been laid and proved to be water tight, the trench or other excavations shall be refilled. Utmost care shall be taken in doing this, so that no damage shall be caused to sewer site and other permanent work. The filling in the hunches and upto 75 cm above the crown of the sewer shall consist of the finest selected materials placed carefully in 15 cm layers and flooded and consolidated. After this has been laid, the trench and other excavation shall be refilled carefully in 15 cm layers with materials taken from the excavation, each layer being watered to assist in the consolidation unless the Engineer-in-Charge shall otherwise direct.

7. The Concessionaire to Restore Settlement and Damages

The Concessionaire shall at his own costs and charges make good promptly during the whole period the works are in hand, any settlement that may occur in the surfaces of roads, berms, footpaths, gardens, open spaces etc. whether public or private caused by his trenches or by his other excavations and he shall be liable for any accidents caused thereby. He shall also at his own expenses and charges repair and make good and damage done to buildings and other property.

8. Disposal of Surplus Soil

The Concessionaire shall at his own costs and charges provide places for disposal of all surplus materials not required to be used on the works. As each trench is refilled, the surplus soil shall be immediately removed, the surface properly restored and roadways and sides left clear.

9. Timbering of Sewer and Trenches

- a) The Concessionaire shall at all times support efficiently and effectively the sides of the sewer trenches and other excavations by suitable timbering, piling and sheeting and they shall be close, timbered in loose or sandy strata and below the surface of the sub soil water level.
- b) All timbering sheeting and plinth with their walls and supports shall be of adequate dimensions and strength and fully braced and strutted so that no risk of collapse or subsidence of the walls of the trench shall take place.
- c) The Concessionaire shall be held responsible and will be accountable for the sufficiency of all timbering, branches, sheeting and piling used as also for all damage to persons and property resulting from improper quality, strength, placing, maintaining or removing of the same.

10. Shoring of Buildings

The Concessionaire shall shore up all buildings, walls and other structures, the stability of which is liable to be endangered by the execution of the work and shall be fully responsible for all damages to persons or property resulting from any accident.

11. Removal of Water from Sewer, Trench etc.

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The Concessionaire shall at all times during the progress of the work keep the trenches and excavations free from water which shall be disposed of by him in a manner as will neither cause injury to the public health nor to the public or private property nor to the work completed or in progress nor to the surface of any roads or streets, nor cause any interference with the use of the same by the public.

12. Width and Depth of Trench

The Engineer-in-Charge shall have the power of giving an order in writing to the Concessionaire to increase the maximum width for excavation in trenches for various classes of sewer, manholes and other works in certain lengths, to be specifically laid down by him, where on account of bad ground or other unusual conditions, he considers that such increased widths are necessary in view of the site conditions.

TECHNICAL SPECIFICATIONS – WATER SUPPLY

A. Scope of Work

- a) Work under this section consists of furnishing all labour, material, equipment and appliances necessary and required to completely install the water supply system as required by the drawings, specified hereafter.
- b) Without restricting to the generality of the foregoing the water supply system shall include the following:
 - i. All water lines to different parts of building and making connection from source etc.
 - ii. Pipe protection and painting.
 - iii. Providing hot water geysers/system and insulation of hot water pipe lines, wherever required.
 - iv. Control valves, masonry chambers and other appurtenances.
 - v. Connections to all plumbing fixtures, kitchen equipment, tanks and appliances.
 - vi. Excavation and refilling of pipe trenches wherever necessary

B. General Requirements

- a) All materials shall be new of the best quality conforming to specifications. All works executed shall be to the satisfaction of the Engineer-in-Charge.
- b) Pipes and fittings shall be fixed truly vertical, horizontal or in slopes as required in a neat workmanlike manner.
- c) Short or long bends shall be used on all main pipelines as far as possible. Use of elbows shall be restricted for short connections.
- d) As far as possible all bends shall be formed by means of a hydraulic pipe bending machine for pipes up to 65mm diameter.
- e) Pipes shall be fixed in manner as to provide easy accessibility for repair and maintenance and shall not cause obstructions in shafts, passages etc.
- f) Pipes shall be securely fixed to walls and ceiling by suitable clamps at intervals specified.
- g) Valves and other appurtenances shall be so located as to provide easy accessibility for operations, maintenance and repairs.

1. G. I. Pipes, Fittings and Valves

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- All pipes inside the buildings and where specified, outside the building shall be galvanized steel tubes conforming to IS 1239-1979 of class specified. When class is not specified they shall be medium class.
- Fittings shall be malleable iron galvanized fittings, approved make. All fittings shall have manufactures trade mark stamped on it. Fittings for G.I pipes shall include bends, tees, reducers, nipples, unions, bushes. Fittings shall be as directed by Engineer-in-Charge or appropriate authority appointed by GSCDL.
- Pipes and fittings shall be jointed with screwed fittings care shall be taken to remove burr from the end of the pipe after cutting by a round file. Genuine red lead with grummet and a few strands of fine hemp shall be applied.. Care shall be taken to avoid air pockets G.I. pipes inside toilets shall be fixed in wall chases well above the floor. No pipes shall be inside a sunken floor as far as possible. Pipes may be run under the ceiling or floors.

a) Clamps

G.I. pipes in shafts and other locations shall be supported by M.S. clamps of design approved by the Engineer-in-Charge. Pipe in wall chases shall be anchored by iron hooks. Pipes at ceiling level shall be supported on structural clamps fabricated from M.S. structural as described in section II. Pipes in typical shafts shall be supported on slotted angles/ channels as specified elsewhere.

b) Unions

The Concessionaire shall provide adequate number of unions on all pipes to enable dismantling later Unions shall be provided near each gunmetal valve, stop cocks, or check valves and on straight runs as necessary at appropriate locations.

c) Flanges

Flanged connections shall also be provided on all equipments connections as necessary and required or as directed by the Engineer-in-Charge. Flanges shall be of forged type and not casted. Connections shall be made by the correct number and size of the bolts and made with 3mm thick insertion rubber washer. Where hot water or steam connections are made insertion gasket shall be of 1.5 m thick compressed asbestos fibre gaskets approved by the Engineer-in-Charge. Bolts hole diameter. For flange shall conform to match the specifications for C.I. sluice valve to IS 780-1984.

d) Trenches

All G.I. Pipes below ground level shall be laid in trenches shall have a minimum cover of 60 cm. Excavation for trenches shall be done as specified, but the width and depth of the trenches shall be as follows:

Diameter wise Width & Depth of Trenches

Diameter of pipes	Width of Trenches	Depth of Trenches
15 mm to 50 mm	30 cm	75 cm
65 mm to 100mm	45 cm	100 cm

- e) Where specified in the bill of quantities all G.I. pipes in trenches shall be protected with fine sand 15cm thick layer all-round before filling in the trenches.

2. Painting

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- a) All pipes above ground shall be painted with one coat of red lead and two coats of synthetic enamel paint of approved shade and quality. Pipe shall be painted to standard colour code.
- b) All pipes in chases and below floor shall be painted two or more coats of anti-corrosive bitumen paint.

3. Pipe Protection

Where specified in the Chapter of quantities all pipes in chase or below ground shall be protected against corrosion by applying two coats of bitumen paint, wrapping with polythene tape and finishing with one more coat of bitumen paint.

4. H.D.P.E. Threaded Pipes

- a) The H.D.P.E. pipe shall be a threaded type of GI standard i.e. having specifications equivalent of GI of IS 1239 medium class but conforming to IS 4984-78
- b) The H.D.P.E. pipe shall conform to pressure rating of 10 kg/sq cm and shall only be used for internal cold water in the building.
- c) All other specification for laying and jointing shall conform to BIS so that GI pipe including for fitting etc., except no pipe protection is required in this case as specified in para 9.a, 9.b and 10.

5. Gun Metal Valves

Valves 65mm diameter and below shall be heavy gunmetal full way valves or globe valves confirming to IS: 778-1971, 10kg/sq cm or 20 kg/cm square as specified in bill of quantities. Valves shall be attested at manufacturer's work and the same on it. All valves shall be approved by the Engineer-in-Charge before they are allowed to be used on work. However the final responsibility of the quality of material lies with the Concessionaire.

6. Sluice valves

A valves 80mm diameter and above shall be CI double flanged sluice valves and/ or as specified in bill of quantities. Sluice valves shall be cast iron double flanged, with rising spindle sluice valve shall be provided with wheels for valves in exposed position and kept for underground valves. The Concessionaire shall provide suitable operating keys for sluice valves with cap tops.

Sluice valves shall be best quality confirming to IS: 780-1969 of class specified.

7. Butterfly valves

Butterfly valves shall be C.I. as per IS 13095-1991 and having C.I. body, epoxy power coated disc, nitrile rubber sheet and all other detail as per requirement. The valves shall be jointed with flanged joints. The specification of the flanges shall be as per I.S.-6392-1971.

Valve up to 150 mm diameter shall be either hand lever or cap operated and from 200mm diameter and above shall be gearbox operated.

8. Testing

- a) All pipes, fittings and valves shall be tested by hydrostatic pressure of 7.5 kg/sq cm.
- b) Pressure shall be maintained for a period of at least 120 minutes without any drop in the pressure after fixing at site. A test register shall be maintained and all entries shall be signed and dated by the Concessionaires and the Engineer-in-Charge.
- c) In addition to the sectional testing carried out during the construction, the Concessionaire shall test the entire installation after connections to the overhead tanks

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or pumping system or mains. He shall rectify all leakages and shall replace all defective materials in the system. Any damage done due to carelessness, open or burst pipes or failure of fittings, to the building, furniture and fixtures shall be made good by the Concessionaire.

- d) After commissioning of the water supply system, the Concessionaire shall test each valve by closing and opening it a number of times to observe if it is working efficiently. Valves, which do not effectively operate, shall be replaced by new ones and the same shall be tested as above.

9. Insulation

- a) Magnesia Insulation

Hot water pipe fixed in case shall be insulated by wrapping 6mm thick asbestos dipped in 85% magnesia solution around the pipes and finished with a port of 1:3 cement plaster mixed with rapid hardening cement.

- b) External hot water pipes in shafts floors and trenches shall be insulated by 2 layers of 6mm thick insulation and then will be having finished smooth surface with 12mm thick cement plaster (two layers of 6mm thick or mix 1:2 Portland cement and fine sand).

10. Cast Iron Pipes s/s

- a) Where specified pipes 80mm id and above shall be S/S spun cast iron pipes conforming to IS 1536-1967. Pipes shall be of maximum lengths available and suitable for moulded rubber joints.

- b) Fittings shall be S/S cast iron conforming to IS 1538-1967.

- c) Laying Pipes

i. Pipes shall be laid out in open trenches with a minimum cover of 75 cm over the crown of the pipes. Width of the trench shall be nominal pipe diameter plus 45 cm with a minimum of 60 cm.

ii. Pipes may be laid on RCC slabs/rafts and shall be supported by bricks pillars at intervals not exceeding 2.4 m.

iii. The socket of the pipes shall be laid facing the flow (the water should enter from socket end)

iv. Pipes should be kept thoroughly clean during the course of laying. Each end shall be blocked by a thick block of wood and wedged at the end of each day's work to prevent dirt and animals from entering the pipes.

- d) Joints for pipes and between spun pipes and C.I. fittings, collars, etc. shall be made with moulded rubber and refined pig lead conforming to IS 27 2977 respectively. The spigot of the pipe of fittings shall be centered in the adjoining socket by caulking. Sufficient turns of tarred gaskin shall be caulked to leave required depth on the socket for lead. After pouring the lead, it shall be solidly caulked with suitable tools and hammers. Depth and weight of lead shall be:

Pipe Diameter wise Depth and Wight of Lead

Pipe diameter	Weight of lead/joint	Depth of lead
80 mm	1.8 kg	45 mm
100 mm	2.2 kg	45 mm
150 mm	3.4 kg	45 mm
200 mm	5.0 kg	50 mm
250 mm	6.1 kg	50 mm
300 mm	7.2 kg	55 mm

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e) Rubber Joint

Joints between two pipes shall be made by premoulded rubber joints with suitable tackles in a manner recommended and approved by the manufacturer. No joints shall be covered until the lines are hydraulically tested.

f) Lead Caulked Joints

i. Joints between pipes and C.I. fittings shall be made with refined pig lead. The spigot of the pipe shall be centered in the adjoining socket by caulking sufficient turn of tarred gaskin, which will be caulked into the joint to leave a depth of 45 mm for pig lead. Molten pig lead shall then be poured into the joint in one pouring. The lead shall then be solidly with suitable tools and hammers.

ii. The Concessionaire may use lead wool joints in wet trench conditions.

g) Anchor Blocks

Suitable anchor blocks shall be provided at all bends and tees to encounter the excessive thrust development due to water hammer.

11. Valves

a) Air Valves

i. Air valves shall be provided in all high points in the system to prevent air locks.

ii. Air valves shall be of single acting heavy duty brass spring type.

b) Scour Valves

Scour valves shall be provided at all low points in the system. Valves shall be gunmetal full way valves for sizes 50 mm diameter. And below and butterfly valves 65 mm diameter and above.

c) Sluice Valve

i. Sluice valve shall be socket type or double flanged type confirming to IS 780.

ii. Joints for socket valves shall be lead caulked joints as specified above.

iii. Joints for double flanged sluice valve shall be made with suitable tail/socket pieces on pipe line and flanges joints made with 3mm thick insertion rubber gasket with appropriate number of bolts, nuts, washers etc.

12. Fire Hydrants

a) Fire hydrant shall be cast iron stand post type with 63mm diameter instantaneous gunmetal outlets conforming to I.S. 908

b) Each fire hydrant shall be provided with an 80 mm cast iron sluice valve, duct foot bend and a suitable 63 mm diameter flanged cast iron pipe for correcting the installation height of the hydrant.

13. Valve chambers

The Concessionaire shall provide suitable brick masonry chambers in cement mortar 1:5 (1 cement: 5 coarse sand) on cement concrete foundations 150 mm thick 1:4:8 mix (1 cement: 4 fine sand: 8 graded stone aggregate 40 mm nominal size) 15 mm thick cement plaster of 1:4 (1 cement: 4 coarse sand) inside and outside finished with a floating coat at neat cement inside with cast iron surface box approved by fire brigade including excavation, back filling complete.

- Valve chamber shall be of following size: For depth 90 cms – 60 x 60 cms
- For depths upto 100 cms beyond – 120x120 cms

14. Testing

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- a) All pipes, fitting and valves shall be tested by hydrostatic pressure of 7.5 kg/sq.cm. Pressure shall be maintained for a period of at least 120 minutes without any drop in the pressure after fixing at site. A test register shall be maintained and all entries shall be signed and dated by the Concessionaires and the Engineer-in-Charge.
- b) In addition to the sectional testing carried out during the construction, the Concessionaire shall test the entire installation after connections to the overhead tanks or pumping system or mains. He shall rectify all leakages and shall replace all defective materials in the system. Any damage done due to carelessness, open or burst pipes or failure of fittings to the building, furniture and fixtures shall be made good.
- c) After commissioning of the water supply system, the Concessionaire shall test each valve by closing and opening it a number of times to observe if it is working effectively. New ones shall replace valves, which do not effectively operate, and the same shall be tested as above.

15. Disinfective

- a) After completion of the work, the Concessionaire shall flush clean the entire system with the city's filtered water after connection has been made.
- b) After the first flushing, add commercial bleaching powder or achieve a dosage of 2 to 3 mg/l of water in the system added and flushed. This operation should be performed twice to ensure that the system is fully disinfected and usable.

16. Pre-commissioning

- a) Ensure that all pipes are free from debris and obstructions.
- b) Check all valves and fire hydrant for effective opening and closing action. Defects should be rectified or valves replaced.
- c) Ensure that all connections to branches have been made.
- d) Ensure that mains have been connected to the respective pumps, underground and overhead tanks.
- e) Water supply should be available at main underground tank.
- f) All main line valves should be closed.

17. Commissioning

- a) Fill tank with water. Add 1 kg fresh bleaching powder after making a solution to be added near inlet.
- b) Start water supply pumps and allow water to fill main underground tank. Water will first fill the fire tank and then overflow to the domestic tanks.
- c) After filling overhead reservoirs drain the same to its one forth capacity through tank scour valve (this is to ensure removal of all mud, debris etc. from the tank).
- d) Fill overhead tank to full.
- e) Release waste in the main lines by opening valves in each circuit. Drain out water in the system through system scour valve or fire hydrant in lower regions. Ensure clean water is now coming out of the system.
- f) Open valves for individual cluster. Observe for leakages or mal function, check pressure and flow at end of line by opening hydrants etc. Remove and rectify defects notice.
- g) Check all fire hydrants for proper operation by opening each valve and allowing water to flow for few minutes. Also check for effective closure of valve.
- h) The entire water supply system should be disinfected with bleaching powder and system flush cleaned.
- i) Send four samples of water drawn from four extreme locations for testing for bacteriological in sterilized bottles obtained from the concerned laboratory.

(Laboratory personal may collect the samples themselves).

18. Responsibility

Responsibility for various activities in pre commissioning and commissioning procedures will rest with the Concessionaire.

TECHNICAL SPECIFICATIONS – SEWERAGE/DRAINAGE SYSTEM

A. Scope of Work

- a) Work under the section shall consist of furnishing all labour materials equipment and appliances necessary and required to completely finish sewerage / drainage system as required by the proposal approved and specified hereinafter.
- b) Without restricting to the generality of the foregoing the sewerage / drainage system shall include
 - i. Internal / External sewer line.
 - ii. Excavation including refilling etc.
 - iii. Construction of collection chambers manholes and drop connections.
 - iv. Construction of grease trap etc.
 - v. Construction of external sewer line.
 - vi. Storm water drainage and disposal.

B. General Requirements

- a) All materials shall be new of the best quality conforming to specifications and subject to the approval of the Engineer-in-Charge.
 - b) Drainage lines shall be laid to the required gradients and profiles
 - c) All drainage work shall be done in accordance with the local municipal byelaws
 - d) Concessionaire shall obtain necessary approval and permission for the drainage system from the municipal or any other Government Agency.
 - e) Location of all manholes, catch basins, etc. shall be confirmed by the Engineer-in-Charge before the actual execution of work at site.
 - f) All works shall be executed as directed by the Engineer-in-Charge.
1. Alignments and grade

The sewers and storm water lines shall be laid to alignment and gradient shown on the drawings but subject to such modifications as shall be ordered by the Engineer-in-Charge from time to time to meet the requirements of the works. No deviations from the lines depths of cutting or gradients of sewer shown on the plans and sectors shall be permitted except to the direction in writing of the Engineer-in-Charge.

2. Excavation

- a) The excavation for sewers and storm water drains shall be in open cutting unless the permission of the Engineer-in-Charge for the ground to be tunneled is obtained in writing. Where sewers have to be constructed along narrow passages, the Engineer-in-Charge may order the excavation to be made partly in tunnel and in such cases the excavated soil be brought back later on for refilling the trenches or tunnel.
- b) Opening Out Trenches

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In excavation the trenches, etc., the soiling roads, metaling, pavement, kerbing etc., and turf shall be placed on one side and preserved for reinforcement when the trenches or other excavation shall be filled up. Before any road metal is replaced, it shall be carefully shifted. The surface of all trenches and holes shall be restored and maintained to the satisfaction of Authority/Engineer-in-Charge.

the Engineer-in-Charge and of the owners of the roads or other property traversed and the Concessionaire shall not cut out or break down any live fence of trees in the line of the proposed works but shall tunnel under them, unless the Engineer-in-Charge shall order to the contrary.

c) Obstruction of Roads

The Concessionaire shall not occupy or obstruct by his operation more than one half of the width of any road or street and if insufficient space shall then be left for public and private transit, he shall remove the materials excavated and bring them back again when the trench is required to be refilled. The Concessionaire shall obtain the consent of the Engineer-in-Charge in writing before closing any road to vehicular traffic and the foot walks must be clear at all times.

d) Removal of Filth

All night soil, filth or any other offensive matter is met with during the execution of works, immediately after it is taken out of any trench, sewer or cess pool, shall not be deposited on the surface of any street or where it is likely to be a nuisance or passed into any sewer or drain but shall be at once put into the carts and removed to suitable place to be provided by the Concessionaire.

e) Excavation to be taken to Proper Depth

The trenches shall be excavated to such a depth that the sewer shall rest on concrete described by the several clauses relating thereto and so that the inverts may be at the levels given the sections. In bad ground, the Engineer-in-Charge may order the Concessionaire to excavate to a greater depth than that shown on the drawings and to fill up the excavation to the level of the sewer with concrete, broken stone, gravel or other materials.

f) Refilling

After the sewer or other work has been laid and proved to be water tight, the trench or other excavations shall be refilled. Utmost care shall be taken in doing this, so that no damage shall be caused to the sewer and other permanent work. The filling in the haunches and upto 75 cm above the crown of the sewer shall consist of the finest selected materials place carefully in 15 cm. Layers and flooded and consolidated. After this has laid the trench and other excavation shall be refilled carefully in 15 cm layers with materials taken from the excavation, each layer being watered to assist in the consolidation unless the Engineer-in-Charge shall otherwise direct.

g) The Concessionaire to restore settlement and damages

The Concessionaire shall at his own costs and charges, make good promptly during the whole period, the work are in hand, any settlement that may occur in the surfaces of roads, berms, footpaths, gardens, open spaces, etc., whether public or private caused by his trenches or by his other excavations and he shall be liable for any accidents caused thereby, he shall also, at his own expenses and charges repair and make good any damage done to buildings and other property.

h) Disposal of Surplus Soil

The Concessionaire shall at his own costs and charges provide places for disposal of all surplus materials not required to be used on the works. As each trenches refilled the

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surplus soil shall be immediately removed, the surface properly restored and roadways and sides left clear.

i) Timbering of sewer and trenches

The Concessionaire shall at all times support efficiently and effectively the sides of the sewer trenches and other excavation by suitable timbering, piling and sheeting and they shall be closed, timbered in loose or sandy strata and below the surface of the sub-soil water level.

All timbering sheeting and piling with their walling supports shall be adequate dimensions and strength and fully braced and strutted so that no risk of collapse or subsidence of the walls of the trench shall take place.

The Concessionaire shall be held responsible and will be accountable for the sufficiency of all timbering, bracing, sheeting and piling used as also for, all damage to persons and property resulting from improper quality, strength, placing maintaining or removing of the same.

j) Shoring of building

The Concessionaire shall shore up all buildings, walls and other structures, the stability of which is liable to be endangered by the execution of the work and shall be fully responsible for all damages to persons of property resulting from any accident.

k) Removal of water from sewer, trench etc.

i. The Concessionaire shall at all times during the progress of the work keep the trenches and excavations free from water which shall be disposed of by him in a manner as will neither cause injury to the public health nor to the public or private property nor to the work completed or in progress nor to the surface of any roads or streets, nor cause any interference with the use of the same by the public.

ii. If any excavation carried out at any point or points to a greater width than the specified cross section of the sewer with its envelope, the full width of the trench shall be filled with concrete by the Concessionaire.

iii. Width of Trench

The Engineer-in-Charge shall have power by giving an order in writing to the Concessionaire to increase the maximum width for excavation in trenches for various classes of sewer, man holes and other works in certain lengths to be specifically laid down by him, where on account of bad ground or other unusual conditions, he considers that such increased widths are necessary in view of the site conditions.

3. Salt Glazed Stoneware Pipes

a) Stoneware pipes shall be first class quality salt glazed and free from rough texture inside and outside and straight. All pipes shall have the manufacturer name marked on it and shall comply to IS 651-1971. Approved makes [PERFECT or BURN].

b) Laying and jointing of stone ware salt glazed pipes

i. Pipes are liable to be damaged in transit and not withstanding tests that may have been made before dispatch each pipe shall be examined carefully on arrival at site. Each pipe shall be rung with a wooden hammer or mallet and those that do not ring true and clear shall be rejected. Sound pipes shall be carefully stacked to prevent damage. All defective pipes should be segregated, marked in a conspicuous manner and their use in the works prevented.

ii. The pipes shall be laid with sockets leading up hill and should rest on solid and even foundations for the full length of the barrel. Socket holes shall be formed in the

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foundation sufficiently deep to allow the pipe jointer room to work right round the pipe and as short as practicable to admit the socket and allow the joint to be made.

iii. Where pipes are not bedded on concrete the trench bottom shall be left slightly high and carefully bottomed up as pipe laying proceeds so that the pipe barrels rest on firm ground, if excavation has been carried too low it shall be made up with cement concrete (1:5:10) mix at the Concessionaire's expenses and charges.

iv. If the bottom of the trench consists of rock or very hard ground that cannot be easily excavated to a smooth surface, the pipes shall be laid on cement concrete bed to ensure even bearing.

c) Jointing of pipes

Tarred gasket shall first be wrapped round the spigot of each pipe and the spigot shall then be placed in to the socket of the pipe previously laid, the pipe then shall be adjusted and fixed in its correct position and the gasket caulked tightly home so as to fill not more than one quarter of the total length to the socket.

The remainder of the socket shall be filled with a stiff mix of cement mortar (1 cement: 1 clear sharp washed sand). When the socket is filled, a fillet should be formed round the joint with a trowel forming an angle of 45 degrees with the barrel of the pipe. The mortar shall be mixed as needed for immediate use and no mortar shall be beaten up & used after it has begun to set.

After the joint has been made and extraneous materials shall be removed from inside the joint with a suitable scraper —badger. The newly made joints shall be protected until set from the sun drying winds, rain or dust. Sacking or other materials, which can be kept damp, shall be used. The joint shall be exposed and spaces left all-round the pipes for inspection by the Engineer-in-Charge. The inside of the sewer must be left absolutely clear in bore and free from cement mortar or other obstructions throughout its entire length, and shall efficiently drain and discharge.

d) Testing

All lengths of the sewer and drain shall be fully tested for water tightness by means of water pressure maintained for not less than 30 minutes. Testing shall be carried out from manhole to manhole. All pipes shall be subjected to a test pressure of at least, 1.5 meter head of water at the highest point. Pressure shall, however, not exceed 1.5 meter head at any point. The pipes shall be plugged preferably with standard design plugs with rubber plugs on both ends. The upper end shall, however, be connected to a pipe for filling with water and getting the required head.

A test register shall be maintained which shall be signed and dated by Concessionaire and Engineer-in-Charge.

4. Gully Traps

- a) Gully traps shall be of the same quality as described for stoneware pipes in Clause 5 above.
- b) Gully traps shall be fixed in cement concrete 1:4:8 mix and brick masonry. Chamber 30x 30cm C.I. sealed cover and frame weighing not less than 7.3 Kg to be constructed as per standard drawings. Where necessary, sealed cover shall be replaced with C.I. grating of the same size (1 Cement: 4 Coarse: 8 stone aggregate 40 mm nominal size).

5. Reinforced Cement Concrete Pipes

- a) All underground storm water drainage pipes and sewer lines where specified (other than those specified cast iron) shall be centrifugally spun RCC pipes of specified class. Pipes shall be true and straight with uniform bore throughout. Cracked, wrapped pipes shall not be used on the work. All pipes shall be tested by the manufacturer and the Concessionaire shall produce, when directed, a certificate to the effect from the manufacturer.
- b) **Laying**
R.C.C. spun pipes shall be laid on cement concrete bed or cradle as specified and shown on the detailed drawings. The cradle may be precast and sufficiently cured to prevent cracks and breakage in handling. The invert of the cradles shall be left 12mm below the invert level of the pipe and properly placed on the solid to prevent any disturbance. The pipe shall then be placed on the bed concrete of cradles and set for the line gradient by means of sight rails and boning rods, etc. Cradles or concrete bed may be omitted, if directed by the Engineer-in-Charge.
- c) **Jointing**
After setting out the pipes the collar shall be centered over the joint and filled in with tarred gaskin, so that sufficient space is left on either side of the collar to receive the mortar. The space shall then be filled with cement mortar (1 cement: 2 fine sand) and caulked by means of proper tools. All joints shall be finished at an angle of 45 degrees to the longitudinal axis of the pipe on both sides of the collars neatly.
- d) **Testing**
All pipes shall be tested to a hydraulic test of 1.5 m head for at least 30 minutes at the highest point in the section under test. Test shall also be carried out similar to those for stoneware pipes given in this chapter. The Concessionaire shall also carry out the smoke test. A test register shall be maintained which shall be signed and dated by Concessionaire/ Engineer-in-Charge.

6. Cast Iron Pipes for Drainage

- a) All drainage lines passing under building, floors and roads with heavy traffic, in exposed position above ground e.g. service floor and basement ceiling shall be cast iron pipes.
- b) Cast iron pipes shall be centrifugally spun cast iron pipes conforming to IS 1536-1967. Quality certificate shall be furnished.
- c) **Fittings and Inspection Chambers**

Fittings used for C.I. drainage pipes shall conform to IS 1538-1967. Wherever, possible junction from branch pipes shall be made by a Y tee. Cleanout plugs shall be provided on head of each drain and at locations indicated on plans or as directed by Engineer-in-Charge. Cleanout plugs shall be of size matching the full bore of the pipe. Plugs shall be made from G.I. coupling caulked into the socket of the pipe for fitting. The end of the provided with a brass screwed plugs with suitable key for opening.

- d) **Laying**
 - i. All cast iron pipes and fittings shall be joined with best quality soft pig lead (conforming to IS 279-1977) which shall be free from impurities.
 - ii. The spigot of pipe or fittings shall be centered in the adjoining socket by caulking. Sufficient turns of tarred gaskin will be given to leave unfilled the required depth of

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socket for depth 45 mm when the gaskin has been caulked tightly home jointing ring shall be placed round the barrel and against the face of the socket. Molten pig lead shall then be poured to fill the remainder of the socket. This shall be done in one pouring. The lead shall then be solidly caulked with suitable tools and hammers weighing not less than 2 kg. For lead wool joints the socket shall be caulked with tarred gaskin as explained above. The lead wool shall be inserted into the sockets and tightly caulked home by gaskin with suitable tools and hammers of not less than 2 kg.

iii. For the lead wool joints the socket shall be caulked with tarred gaskin, as explained above. The lead wool shall be inserted into the sockets and tightly caulked home by gaskin with suitable tools and hammers of not less than 2kg weight until joint is filled.

e) Testing

All cast iron pipes for drainage shall be tested to a hydraulic test of 3-meter head. Test for straightness shall be same as for stoneware pipe given in point 5.d A test register shall be maintained which shall be signed and dated by Concessionaire and Engineer-in-Charge.

7. Cement Concrete and Masonry Works (for manholes and chambers, etc.)

- a) Water: Water used for all constructional purpose shall be clear and free from oil, acid, alkali, organic and other harmful matters, which can deteriorate the strength and / or durability of structure. In general, the water suitable for drinking purpose shall be considered as good enough for constructional purposes.
- b) Aggregate For Concrete: The aggregate for concrete shall be in accordance with I.S. 383 and I.S. 515 in general; these shall be free from all impurities that may cause corrosion of the reinforcement. Before actual use these shall be washed in water, if required as per the direction of Engineer-in-Charge. The size of the coarse aggregate shall be done as per IS 383.
- c) Sand: Sand for various constructional purposes shall comply in all respects with I.S. 650 and I.S. 2116. It shall be clean, coarse hard and strong, sharp, durable, uncoated, free from any mixture of clay, dust, vegetable matter, mica, iron impurities soft or flaky and elongated particles, alkali, organic matter, salt, loam and other impurities which may be considered by the Engineer-in-Charge as harmful for the construction.
- d) Cement: The Cement used for all construction purpose shall be ordinary Portland cement or rapid hardening Portland cement conforming to I.S. 269. (e) Mild Steel Reinforcement. The mild steel for reinforcement bars shall be in the form of round bars conforming to all requirements of IS 432 (Grade I).
- e) Bricks: Bricks shall uniform colour, thoroughly burnt but not over burnt, shall have plan rectangular faces with parallel sides and sharp right-angled edges. They should give ringing sound when struck. Brick shall not absorb more than 20% to 22% of water, when immersed in water for 24 hours. Bricks to be used shall be approved by the Engineer-in-Charge.
- f) Other Materials: Other materials not fully specified in these specifications and which may be required in work shall conform to the latest IS All such material shall be approved by the Engineer-in-Charge before use.
- g) Cement Concrete (Plain or Reinforced)
 - i. Cement concrete pipes bedding, cradles, foundations and R.C.C. slabs for all works shall be, mixed by a mechanical mixer where quantities of the concrete poured at one

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time permit, hand mixing on properly constructed platforms may be allowed for small quantities by the Engineer-in-Charge.

- ii. Concrete works shall be of such thickness and mix
- iii. All concrete work shall be cured for a period of at least 7 days. Such work shall be kept moist by means of gunny bags at all times. All pipes trenches and foundations shall be kept dry during the curing period.

h) Masonry Work

Masonry work for manholes, chambers, septic tanks and other such works as required shall be constructed from stone. All joints shall be properly raked to receive plaster.

i) Cement Concrete for Pipe Support

- i. Wherever specified or shown on the drawings all pipes shall be supported in bed and all round or in haunches. The thickness and mix of the concrete shall be of appropriate width of the bedding.
- ii. Unless otherwise directed by the Engineer-in-Charge, cement concrete for bed, all round or in haunches shall be laid as follows.
- iii. R.C.C. Pipes or C.I. pipes may be supported on brick masonry or precast R.C.C. or in situ cradles.
- iv. Pipes in loose soil or above ground shall be supported on bricks or stone masonry pillars.

Mix of Concrete for Pipe Support

Pipes	Upto 1.5 m depth	Upto 1.5 m depth	Beyond 3 m depth
Stoneware pipe in open ground (no sub soil water)	All round 1:3:6	In haunches 1:3:6	All round 1:2:4
RCC or SW pipes in sub soil water	All round 1:3:6	In haunches 1:3:6	All round 1:2:4
GI pipe (in all conditions)	Sand filling	Sand filling	Sand filling
RCC pipes or CI pipes under road or building	All round 1:3:6	In haunches 1:3:6	All round 1:2:4

(1=1 cement ; 3-6 = coarse sand ; 6-12 = stone aggregate 20 mm nominal size)

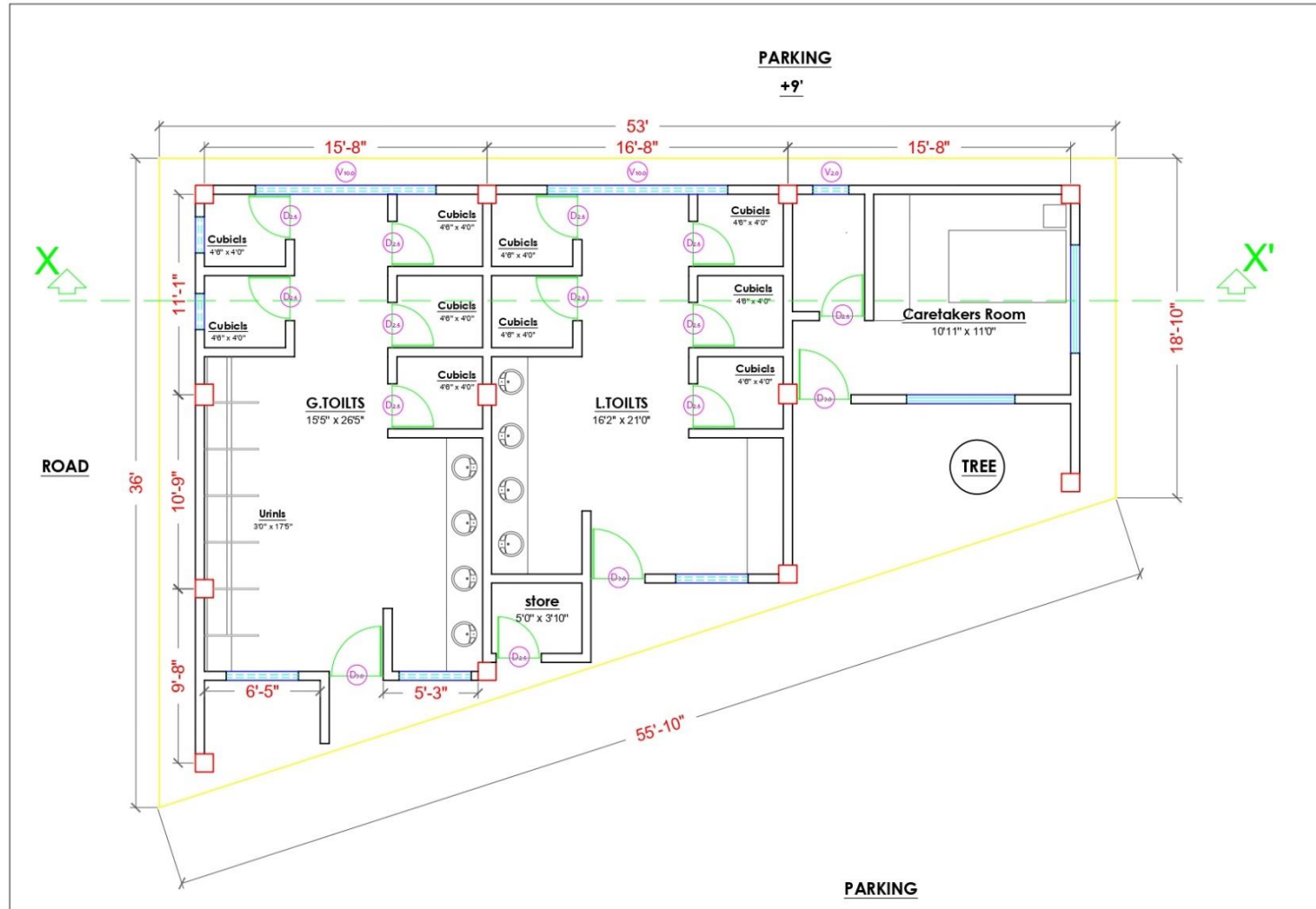
8. Manhole and Chambers

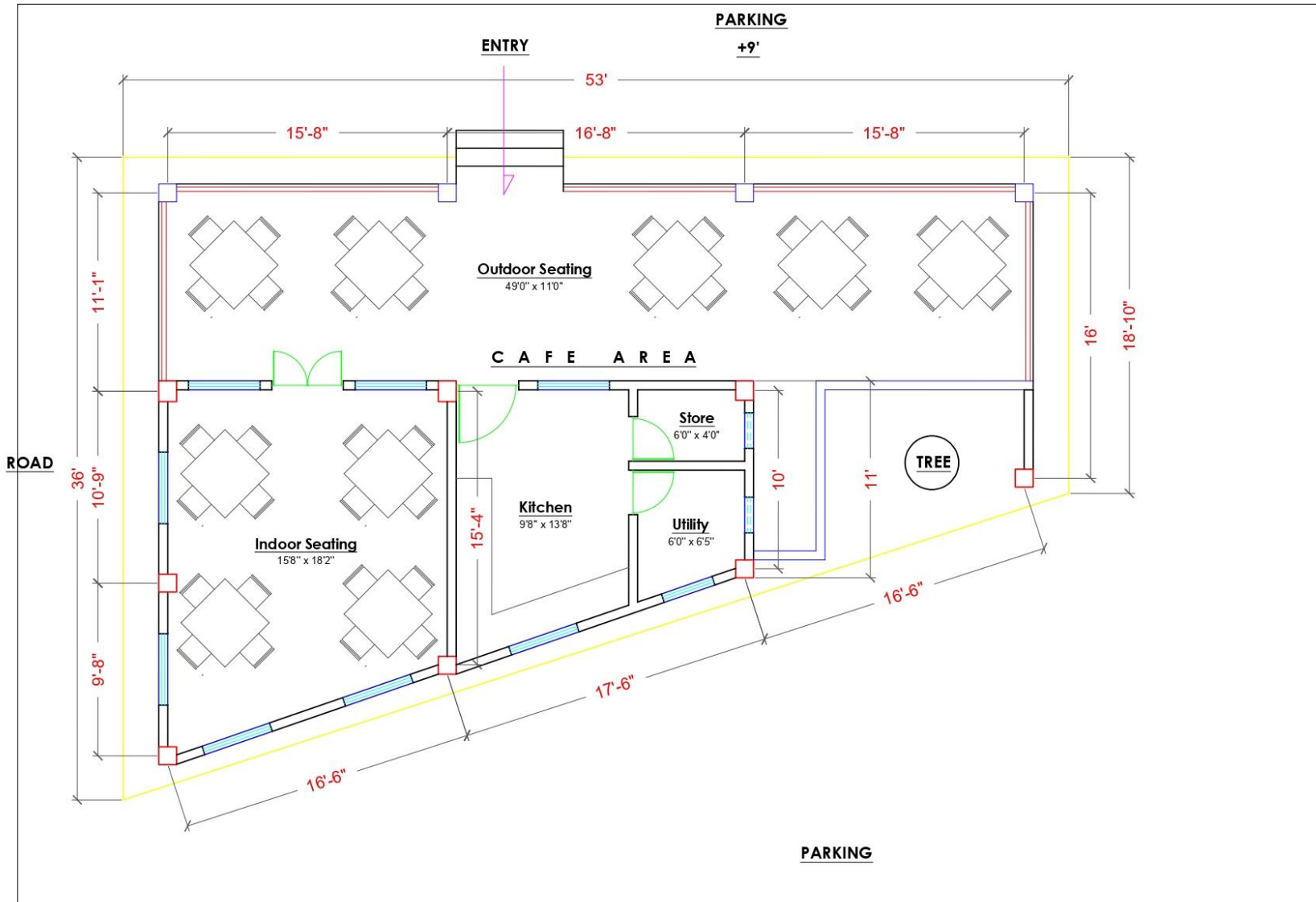
- a) All manholes, chambers, septic tanks and other such works as specified shall be constructed in RR Stone Masonry (1:6) I.S. (1 cement: 6 coarse sand).
- b) All manholes, chambers, septic tanks, etc., shall be supported one base of cement concrete of such thickness and mix.
- c) All manholes shall be provided with cement concrete benching in 1:2:4 mix (1 cement 2 coarse sand 4 stone aggregate 20 mm nominal size) The benching shall have a slope of 10 cms towards the channels. The depth of the channel shall be full diameter of the pipe. Benching shall be finished with a floating coat of neat cement.
- d) All manholes shall be plastered with 25 mm thick cement mortar 1:3 mix (1 cement 3 coarse sand) in finished with a floating coat of neat cement inside. Manholes shall be plastered outside as above but with rough plaster.
- e) All manholes with depths greater than 1 m shall be provide with Ferro Cement Foot Steps.

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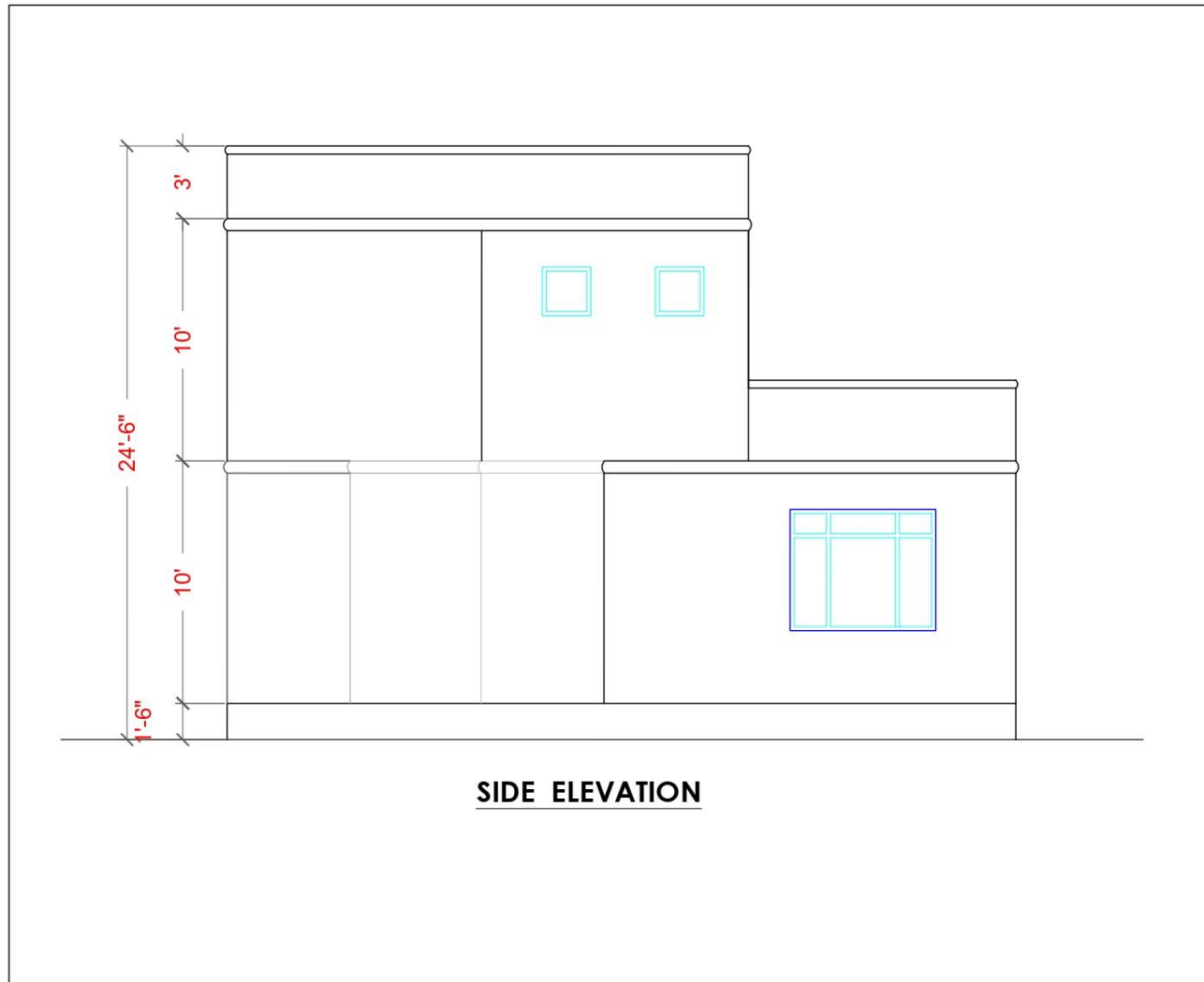
- f) All manholes shall be provided with cast iron covers and frames and embedded in reinforced cement concrete slab. Weight of cover and frame shall be approximately chosen.
- g) Size of Manhole should not be less than 1500 x 900 mm in normal circumstances. Circular manhole shall be construction with minimum 1 meter internal dia.
- h) Drop Connection
 - i. Drop connections shall be provided between branch sewer and main sewer or in the main sewer itself in the steep ground when the difference in the invert level of the two exceeds 45 cm of the required size.
 - ii. Drop connections from the gully trap to main sewer on rectangular manholes shall be made inside the manhole and shall have H.C.I. special type door on top and heel rest bend at bottom connected by a H.C.I. pipe. This pipe shall be supported by holder bat clamp at 180 cm intervals with one clamp for each drop connection. All joints shall be lead caulked joints 25 cm deep.
 - iii. Drop connections from branch sewer to main sewer shall be made outside the manhole wall with glazed stone ware pipe tee connection, vertical pipe and bend at the bottom. The top of the tee shall be finished up to the surface level and provided with a C.I. hinged type frame and cover 30 cm x 30cm. The connection shall be embedded in the cement concrete 1:2:4 mix 15 cm all round the pipe and tee upto the surface chamber of the tee.
 - iv. Drop connection made from vertical stack directly into the manhole shall not be considered as drop connection.

Drawings

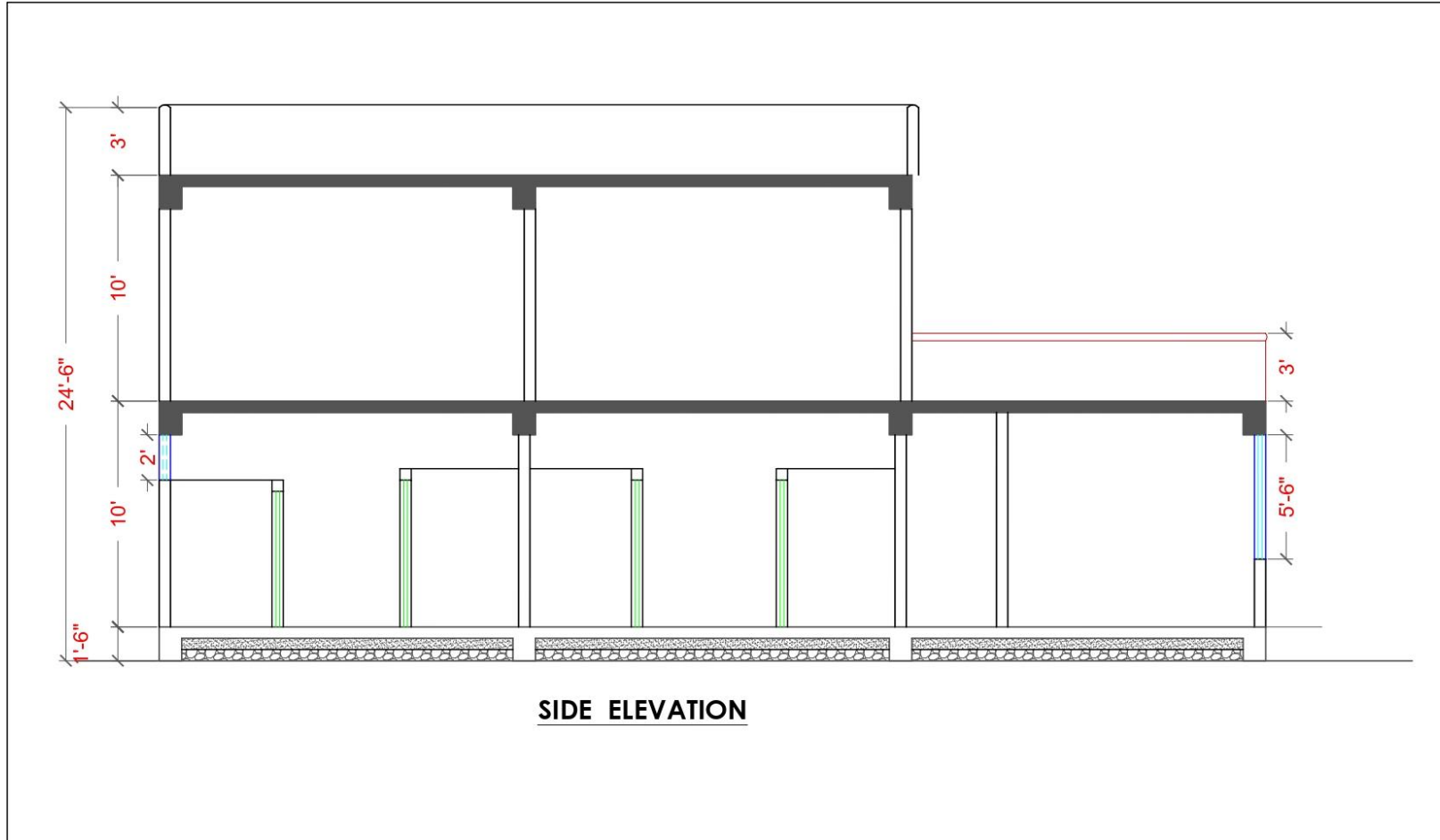








SIDE ELEVATION



PART III

CONDITIONS OF CONTRACT AND CONTRACT FORMS

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Section VIII - GENERAL DIRECTIONS AND CONDITIONS OF CONTRACT

These General Conditions of Contract (GCC), read in conjunction with the Particular Conditions of Contract (PCC) and other documents listed therein, explains the rights and obligations of both parties.

A. General

1. Definitions: Boldface type is used to identify defined terms.

- (a) The **Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- (b) The **Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump-sum contract. It includes a lump-sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
- (c) The **Adjudicator** is the person appointed by the Employer and the to resolve disputes in the first instance, as provided for in GCC 23.
- (d) **GSCDL** means the Gangtok Smart City Development Limited **named in the PCC**.
- (e) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.
- (f) **Compensation Events** are those defined in GCC Clause 42 hereunder.
- (g) **The Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 57.1.
- (h) The **Contract** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.
- (i) The **Contractor** is the party whose Bid to carry out the Works has been accepted by the Employer.
- (j) The **Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer.
- (k) The **Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- (l) **Days** are calendar days; months are calendar months.
- (m) **Dayworks** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant. Dayworks shall also mean Lumpsum and vice versa.
- (n) A **Defect** is any part of the Works not completed in accordance with the Contract.
- (o) The **Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor.
- (p) The **Defects Liability Period** is the period named in the PCC pursuant to GCC Sub-Clause 38.1 and calculated from the Completion Date.
- (q) **Drawings** means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
- (r) The **Employer** is the party who employs the Contractor to carry out the Works, as specified in the PCC.
- (s) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (t) "**In writing**" or "**written**" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- (u) The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.
- (v) The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The **Intended Completion Date** is specified in the PCC. The

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Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

- (w) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (x) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- (y) The **Project Manager** is the person named in the PCC (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
- (z) **PCC** means Particular Conditions of Contract.
- (aa) The **Site** is the area defined as such in the PCC.
- (bb) **Site Investigation Reports** are those that were included in the bidding document and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- (cc) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (dd) The **Start Date** is **given in the PCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- (ee) A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- (ff) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (gg) A **Variation** is an instruction given by the Project Manager which varies the Works.
- (hh) The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the PCC.
- (ii) “**Contractor’s Personnel**” refers to all personnel whom the Contractor utilizes on the Site or other places where the Works are carried out, including the staff, labor and other employees of each Subcontractor.
- (jj) “**Key Personnel**” means the positions (if any) of the Contractor’s personnel that are stated in the Specification.
- (kk) “**ES**” means Environmental and Social (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH)).
- (ll) “**Sexual Exploitation and Abuse**” “(SEA)” means the following:
Sexual Exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another; **Sexual Abuse** is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.
- (mm) “**Sexual Harassment**” “(SH)” is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor’s Personnel with other Contractor’s or Employer’s Personnel; and
- (nn) “**Employer’s Personnel**” refers to the Project Manager and all other staff, labor and other employees (if any) of the Project Manager and of the Employer engaged in fulfilling the Employer’s obligations under the Contract; and any other personnel identified as Employer’s Personnel, by a notice from the Employer or the Project Manager to the Contractor.

2. Interpretation

- 2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.

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2.2 If sectional completion is **specified in the PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

2.3 The documents forming the Contract shall be interpreted in the following order of priority:

- (a) Agreement,
- (b) Letter of Acceptance,
- (c) Contractor's Bid,
- (d) Particular Conditions of Contract,
- (e) General Conditions of Contract, including Appendices,
- (f) Specifications,
- (g) Drawings,
- (h) Bill of Quantities, and
- (i) Any other document **listed in the PCC** as forming part of the Contract.

3 Language and Law

3.1 The language of the Contract and the law governing the Contract are **stated in the PCC**.

3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when

- (a) as a matter of law or official regulations, the GSCDL's country prohibits commercial relations with that country; or
- (b) deleted

4 Project Manager's Decisions

4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5 Delegation

5.1 Unless otherwise **specified in the PCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.

6 Communications

6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered

7 Subcontracting

7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations. The Contractor shall require that its Subcontractors execute the Works in accordance with the Contract, including complying with the relevant ES requirements and the obligations set out in Sub-Clause 28.1.

8 Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as

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referred to in the PCC. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

9 Personnel and Equipment

9.1 The Contractor shall employ the Key Personnel and use the Equipment identified in its Bid, to carry out the Works or other personnel and Equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and Equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

9.2 The Project Manager may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Key Personnel (if any), who:

- (a) persists in any misconduct or lack of care;
- (b) carries out duties incompetently or negligently;
- (c) fails to comply with any provision of the Contract;
- (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment;
- (e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works;
- (f) has been recruited from the Employer's Personnel;
- (g) undertakes behavior which breaches the Code of Conduct for Contractor's Personnel (ES).

If appropriate, the Contractor shall then promptly appoint (or cause to be appointed) a suitable replacement with equivalent skills and experience. Notwithstanding any requirement from the Project Manager to remove or cause to remove any person, the Contractor shall take immediate action as appropriate in response to any violation of (a) through (g) above. Such immediate action shall include removing (or causing to be removed) from the Site or other places where the Works are being carried out, any Contractor's Personnel who engages in (a), (b), (c), (d), (e) or (g) above or has been recruited as stated in (f) above."

9.3 The Contractor shall take all necessary safety measures to avoid the occurrence of incidents and injuries to any third party associated with the use of, if any, Equipment on public roads or other public infrastructure. The Contractor shall monitor road safety incidents and accidents to identify negative safety issues, and establish and implement necessary measures to resolve them.

9.4 Labor

9.4.1 Engagement of Staff and Labor. The Contractor shall provide and employ on the Site for the execution of the Works such skilled, semi-skilled and unskilled labor as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country. Unless otherwise provided in the Contract, the Contractor shall be responsible for the recruitment, transportation, accommodation and welfare facilities in accordance with GCC Sub-Clause 9.4.6, of the Contractor's Personnel, and for all payments in connection therewith.

The Contractor shall provide the Contractor's Personnel information and documentation that are clear and understandable regarding their terms and conditions of employment. The information and documentation shall set out their rights under

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relevant labor laws applicable to the Contractor's Personnel (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from any requirements in the Specifications. The Contractor's Personnel shall be informed when any material changes to their terms or conditions of employment occur.

9.4.2 Conditions of Labor. The Contractor shall inform the Contractor's Personnel about:

- (a) any deduction to their payment and the conditions of such deductions in accordance with the applicable laws or as stated in the Specifications; and
- (b) their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the laws of the Country for the time being in force.

The Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws.

Where required by applicable laws or as stated in the Specifications, the Contractor shall provide the Contractor's Personnel written notice of termination of employment and details of severance payments in a timely manner. The Contractor shall have paid the Contractor's Personnel (either directly or where appropriate for their benefit) all due wages and entitlements including, as applicable, social security benefits and pension contributions, on or before the end of their engagement/ employment.

9.4.3 Deleted

9.4.4 Deleted

9.4.5 Disorderly conduct. The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst the Contractor's Personnel.

9.4.6 Facilities for Staff and Labor. Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. If stated in the Specification, the Contractor shall give access to or provide services that accommodate the physical, social and cultural needs of the Contractor's Personnel. The Contractor shall also provide similar facilities for the Employer's Personnel if stated in the Specifications.

9.4.7 The Contractor shall, in all dealings with the Contractor's Personnel, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labor. The Contractor shall provide the Contractor's Personnel annual holiday and sick, maternity and family leave, as required by applicable laws or as stated in the Specifications.

9.4.8 Supply of Foodstuffs. The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

9.4.9 Supply of Water. The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

9.4.10 Measures against Insect and Pest Nuisance. The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall

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comply with all the regulations of the local health authorities, including use of appropriate insecticide.

- 9.4.11 **Alcoholic Liquor or Drugs.** The Contractor shall not, otherwise than in accordance with the laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor's Personnel.
- 9.4.12 **Arms and Ammunition.** The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.
- 9.4.13 **Funeral Arrangements.** The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.
- 9.4.14 **Forced Labor.** The Contractor, including its Subcontractors, shall not employ or engage forced labor. Forced labor consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements.

No persons shall be employed or engaged who have been subject to trafficking. Trafficking in persons is defined as the recruitment, transportation, transfer, harboring or receipt of persons by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of power, or of a position of vulnerability, or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purposes of exploitation.

- 9.4.15 **Child Labor.** The Contractor, including its Subcontractors, shall not employ or engage a child under the age of 18 unless the national law specifies a higher age (the minimum age).

The Contractor, including its Subcontractors, shall not employ or engage a child between the minimum age and the age of 18 in a manner that is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.

The Contractor including its Subcontractors, shall only employ or engage children between the minimum age and the age of 18 after an appropriate risk assessment has been conducted by the Contractor with the Project Manager's approval. The Contractor shall be subject to regular monitoring by the Project Manager that includes monitoring of health, working conditions and hours of work.

Work considered hazardous for children is work that, by its nature or the circumstances in which it is carried out, is likely to jeopardize the health, safety, or morals of children. Such work activities prohibited for children include work:

- (a) with exposure to physical, psychological or sexual abuse;
- (b) underground, underwater, working at heights or in confined spaces;
- (c) with dangerous machinery, equipment or tools, or involving handling or
- (d) transport of heavy loads;
- (e) in unhealthy environments exposing children to hazardous substances, agents, or processes, or to temperatures, noise or vibration damaging to health; or

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- (f) under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.
- 9.4.16 **Employment Records of Workers.** The Contractor shall keep complete and accurate records of the employment of labor at the Site. The records shall include the names, ages, genders, hours worked, and wages paid to all workers.
- 9.4.17 **Workers' Organizations.** Where the relevant labor laws recognize workers' rights to form and to join workers' organizations of their choosing and to bargain collectively without interference, the Contractor shall comply with such laws. In such circumstances, the role of legally established workers' organizations and legitimate workers' representatives will be respected, and they will be provided with information needed for meaningful negotiation in a timely manner. Where the relevant labor laws substantially restrict workers' organizations, the Contractor shall enable alternative means for the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. The Contractor shall not seek to influence or control these alternative means. The Contractor shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organizations and collective bargaining or alternative mechanisms. Workers' organizations are expected to fairly represent the workers in the workforce.
- 9.4.18 **Non-Discrimination and Equal Opportunity.** The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.

Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure non-discrimination and equal opportunity, including for specific groups such as women, people with disabilities, migrant workers and children (of working age in accordance with GCC Sub-Clause 9.4.15).

- 9.4.19 **Contractor's Personnel Grievance Mechanism.** The Contractor shall have a grievance mechanism for Contractor's Personnel, and where relevant the workers' organizations stated in GCC Sub-Clause 9.4.17, to raise workplace concerns. The grievance mechanism shall be proportionate to the nature, scale, risks and impacts of the Contract. The mechanism shall address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned in a language they understand, without any retribution, and shall operate in an independent and objective manner.

The Contractor's Personnel shall be informed of the grievance mechanism at the time of engagement for the Contract, and the measures put in place to protect them against any reprisal for its use.

The grievance mechanism shall not impede access to other judicial or administrative remedies that might be available.

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9.4.20 Training of Contractor's Personnel. The Contractor shall provide appropriate training to relevant Contractor's Personnel on ES aspects of the Contract, including appropriate sensitization on prohibition of SEA and SH, and health and safety

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 which this Contract states are Contractor's risks.

11 Employer's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to
 - (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.
- (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to

- (a) a Defect which existed on the Completion Date,
- (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or
- (c) the activities of the Contractor on the Site after the Completion Date.

12 Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risk

13 Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles if **stated in the PCC** 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 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager if stated in the PCC at 13.1, for the Project Manager's approval before the Start Date.

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All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

- 13.3 Subject to 13.1, if the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.
- 13.5 Both parties shall comply with any conditions of the insurance policies.

14 Site Data

- 14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the PCC**, supplemented by any information available to the Contractor.

15 Contractor to Construct the Works

- 15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
- 15.2 If the Contract specifies that the Contractor shall design any part of the permanent Works, the Contractor shall take into account the Employer's requirements which may include, if stated in the Specifications:
 - (a) designing structural elements of the Works taking into account climate change considerations; and
 - (b) considering the incremental risks of the public's potential exposure to operational accidents or natural hazards, including extreme weather events.

16 The Works to Be Completed by the Intended Completion Date

- 16.1 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 Project Manager, and complete them by the Intended Completion Date.
- 16.2 The Contractor shall not carry out mobilization to the Site as per Code of Conduct for Contractor's Personnel submitted as part of the Bid and agreed as part of the Contract.

17 Approval by the Project Manager

- 17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.
- 17.2 The Contractor shall be responsible for design of Temporary Works.
- 17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
- 17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.

18 Health, Safety and Protection of the Environment

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

18.2 The Contractor shall:

- (a) comply with all applicable health and safety regulations and Laws;
- (b) comply with all applicable health and safety obligations specified in the Contract;
- (c) take care for the health and safety of all persons entitled to be on the Site and other places, if any, where the Works are being executed;
- (d) keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons;
- (e) provide fencing, lighting, safe access, guarding and watching of the Works until the issue of the Contract Completion Certificate;
- (f) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land;
- (g) provide health and safety training of Contractor's Personnel as appropriate;
- (h) actively engage the Contractor's Personnel in promoting understanding, and methods for, implementation of health and safety requirements, as well as in providing information to Contractor's Personnel, training on occupational safety and health, and provision of personal protective equipment without expense to the Contractor's Personnel;
- (i) put in place workplace processes for Contractor's Personnel to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health.
- (j) Contractor's Personnel who remove themselves from such work situations shall not be required to return to work until necessary remedial action to correct the situation has been taken. Contractor's Personnel shall not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal;
- (k) where the Employer's Personnel, any other contractors employed by the Employer, and/or personnel of any legally constituted public authorities and private utility companies are employed in carrying out, on or near the site, of any work not included in the Contract, collaborate in applying the health and safety requirements, without prejudice to the responsibility of the relevant entities for the health and safety of their own personnel; and
- (l) deleted.

Subject to GCC Sub-Clause 16.2, the Contractor

- (a) shall include at a minimum:
 - (i) to establish and maintain a safe working environment without risk to health at all workplaces, machinery, equipment and processes under the control of the Contractor, including control measures for chemical, physical and biological substances and agents;
 - (ii) deleted;
 - (iii) the prevention, preparedness and response activities to be implemented in the case of an emergency event (i.e. an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning);

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- (iv) remedies for adverse impacts such as occupational injuries, deaths, disability and disease;
 - (v) the measures to be taken to avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases,
 - (vi) the measures to avoid or minimize the spread of communicable diseases (including transfer of Sexually Transmitted Diseases or Infections (STDs), such as HIV virus) and non-communicable diseases associated with the execution of the Works, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups. This includes taking measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent Contract-related labor;
 - (vii) the management and quality of accommodation and welfare facilities if such accommodation and welfare facilities are provided by the Contractor in accordance with GCC Sub-Clause 9.4.6; and
- (b) any other requirements stated in the Specification

18.3 Protection of the environment

The Contractor shall take all necessary measures to:

- (a) protect the environment (both on and off the Site); and
- (b) limit damage and nuisance to people and property resulting from pollution, noise and other results of the Contractor's operations and/ or activities. The Contractor shall ensure that emissions, surface discharges, effluent and any other pollutants from the Contractor's activities shall exceed neither the values indicated in the Specifications, nor those prescribed by applicable laws. In the event of damage to the environment, property and/or nuisance to people, on or off Site as a result of the Contractor's operations, the Contractor shall agree with the Project Manager the appropriate actions and time scale to remedy, as practicable, the damaged environment to its former condition. The Contractor shall implement such remedies at its cost to the satisfaction of the Project Manager.

19 Archaeological and Geological Findings

19.1 All fossils, coins, articles of value or antiquity, structures, groups of structures, and other remains or items of geological, archaeological, paleontological, historical, architectural or religious interest found on the Site shall be placed under the care and custody of the Employer. The Contractor shall:

- (a) take all reasonable precautions, including fencing-off the area or site of the finding, to avoid further disturbance and prevent Contractor's Personnel or other persons from removing or damaging any of these findings;
- (b) train relevant Contractor's Personnel on appropriate actions to be taken in the event of such findings; and
- (c) implement any other action consistent with the requirements of the Specifications and relevant laws.

The Contractor shall, as soon as practicable after discovery of any such finding, notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

20 Possession of the Site

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

21 Access to the Site

21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager (including the GSCDL staff or consultants acting on the GSCDL's behalf, stakeholders and third parties, such as independent experts, local communities, or non-governmental organizations), including to carry out environmental and social audit, as appropriate, 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.

22 Instructions, Inspections and Audits

22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.

22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and subconsultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs

22.3 Pursuant to paragraph 2.2 e. of Appendix A to the GCC- Fraud and Corruption, the Contractor shall permit and shall cause its agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit, the GSCDL and/or persons appointed by the GSCDL to inspect the site and/or the accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have such accounts, records and other documents audited by auditors appointed by the GSCDL. The Contractor's and its Subcontractors' and subconsultants' attention is drawn to GCC Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the GSCDL's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the GSCDL's prevailing sanctions procedures.

23 Appointment of the Adjudicator

23.1 The Adjudicator shall be appointed by the Employer.

23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be appointed by the Employer.

24 Procedure for Disputes

24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.

24.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

24.3 The Adjudicator shall be paid by the hour at the rate specified in the PCC, together with reimbursable expenses of the types specified in the PCC, and the cost shall be divided equally

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between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.

- 24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place **specified in the PCC**.

25 Fraud and Corruption

- 25.1 The GSCDL requires compliance with the GSCDL's Anti-Corruption Guidelines as set forth in Appendix A to the GCC.
- 25.2 The Employer requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

26 Stakeholder Engagement

- 26.1 The Contractor shall provide relevant contract- related information, as the Employer and/or Project Manager may reasonably request to conduct Stakeholder engagements. "Stakeholder" refers to individuals or groups who:
- (a) are affected or likely to be affected by the Contract; and
 - (b) may have an interest in the Contract.
- 26.2 The Contractor may also directly participate in Stakeholder engagements, as the Employer and/or Project Manager may reasonably request.

27 Suppliers (other than Subcontractors)

- 27.1 **Forced Labor:** The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage forced labor including trafficked persons as described in GCC Sub-Clause 9.4.14. If forced labor/trafficking cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.
- 27.2 **Child Labor:** The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage child labor as described in GCC Sub-Clause 9.4.15. If child labor cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.
- 27.3 **Serious Safety Issues:** The Contractor, including its Subcontractors, shall comply with all applicable safety obligations, including as stated in GCC Sub-Clause 18.2. The Contractor shall also take measures to require its suppliers (other than Subcontractors) to adopt procedures and mitigation measures adequate to address safety issues related to their personnel. If serious safety issues are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

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- 27.4 Obtaining natural resource materials in relation to supplier: The Contractor shall obtain natural resource materials from suppliers that can demonstrate, through compliance with the applicable verification and/ or certification requirements, that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats such as unsustainably harvested wood products, gravel or sand extraction from river beds or beaches.
- 27.5 If a supplier cannot continue to demonstrate that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to demonstrate that they are not significantly adversely impacting the habitats

28 Code of Conduct

- 28.1 The Contractor shall have a Code of Conduct for the Contractor's Personnel.
- 28.2 The Contractor shall take all necessary measures to ensure that each Contractor's Personnel is made aware of the Code of Conduct including specific behaviors that are prohibited, and understands the consequences of engaging in such prohibited behaviors.

29 Security of the Site

- 29.1 The Contractor shall be responsible for the security of the Site, and:
- (a) for keeping unauthorized persons off the Site in consultation with the Project Manager;
 - (b) authorized persons shall be limited to the Contractor's Personnel, the Employer's Personnel, and to any other personnel identified as authorized personnel (including the Employer's other contractors on the Site), by a notice from the Employer or the Project Manager to the Contractor.

Subject to GCC Sub-Clause 16.2, the Contractor shall submit for the Project Manager's No-objection a security management plan that sets out the security arrangements for the Site

The Contractor shall (i) conduct appropriate background checks on any personnel retained to provide security; (ii) train the security personnel adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct towards Contractor's Personnel, Employer's Personnel and affected communities; and (iii) require the security personnel to act within the applicable Laws and any requirements set out in the Specifications.

The Contractor shall not permit any use of force by security personnel in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat.

- 29.2 In making security arrangements, the Contractor shall also comply with any additional requirements stated in the Specification.

B. Time Control

30 Program and Progress Reports

- 30.1 Within the time **stated in the PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump-sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.

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The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

- 30.2 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 work, including any changes to the sequence of the activities.
- 30.3 The Contractor shall monitor progress of the Works and submit to the Project manager progress report and any updated Program showing the actual progress achieved and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities, at intervals no longer than the period stated in the PCC. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the PCC 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. In the case of lump-sum Contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.

30.4 Deleted

- 30.5 In addition to the progress reports, the Contractor shall inform the Project Manager immediately of any allegation, incident or accident in the Site, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel, Project Manager's personnel or Contractor's Personnel. This includes, but is not limited to, any incident or accident causing fatality or serious injury; significant adverse effects or damage to private property; or any allegation of SEA and/or SH. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information.

The Contractor, upon becoming aware of the allegation, incident or accident, shall also immediately inform the Project Manager of any such incident or accident on the Subcontractors' or suppliers' premises relating to the Works which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel, or Contractor's, its Subcontractors' and suppliers' personnel. The notification shall provide sufficient detail regarding such incidents or accidents. The Contractor shall provide full details of such incidents or accidents to the Project Manager within the timeframe agreed with the Project Manager.

The Contractor shall require its Subcontractors and suppliers (other than Subcontractors) to immediately notify the Contractor of any incidents or accidents referred to in this Sub clause.

31 Extension of the Intended Completion Date

- 31.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
- 31.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

32 Acceleration

- 32.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.
- 32.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

33 Delays Ordered by the Project Manager

- 33.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

34 Management Meetings

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

35 Early Warning

- 35.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 35.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

36 Identifying Defects

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

37 Tests

-deleted-

38 Correction of Defects

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- 38.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the PCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 38.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

39 Uncorrected Defects

- 39.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

40 Contract Price

- 40.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

41 Changes in the Contract Price

- 41.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.
- 41.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

42 Variations

- 42.1 All Variations shall be included in updated Programs produced by the Contractor.
- 42.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Contractor shall also provide information of any ES risks and impacts of the Variation. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
- 42.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 42.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 42.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.
- 42.6 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC Sub-

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Clause 41.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

42.7 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- (a) the proposed change(s), and a description of the difference to the existing contract requirements;
- (b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle cost) the Employer may incur in implementing the value engineering proposal;
- (c) a description of any effect(s) of the change on performance/functionality; and
- (d) a description of the proposed work to be performed, a program for its execution and sufficient ES information to enable an evaluation of ES risks and impacts.

The Employer may accept the value engineering proposal if the proposal demonstrates benefits that:

- (a) accelerates the contract completion period; or
- (b) reduces the Contract Price or the life cycle costs to the Employer; or
- (c) improves the quality, efficiency, safety or sustainability of the Facilities; or
- (d) yields any other benefits to the Employer,

without compromising the functionality of the Works.

If the value engineering proposal is approved by the Employer and results in:

- (a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the **percentage specified in the PCC** of the reduction in the Contract Price; or
- (b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.

43 Cash Flow Forecasts

When the Program, is updated, the Contractor shall, if requested by the authority, provide the Project Manager with an updated cash flow forecast.

44 Payment Certificates

44.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

44.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

44.3 The value of work executed shall be determined by the Project Manager as indicated under **Measurements**.

44.4 The value of work executed shall comprise the value of the quantities of work in the Bill of Quantities that have been completed.

44.5 The value of work executed shall include the valuation of Variations and Compensation Events.

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- 44.6 The Project Manager 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.
- 44.7 If the Contractor was, or is, failing to perform any ES obligations or work under the Contract, the value of this work or obligation, as determined by the Project Manager, may be withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Project Manager, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:
- (a) failure to comply with any ES obligations or work described in the Works' Requirements which may include: working outside site boundaries, excessive dust, failure to keep public roads in a safe usable condition, damage to offsite vegetation, pollution of water courses from oils or sedimentation, contamination of land e.g. from oils, human waste, damage to archeology or cultural heritage features, air pollution as a result of unauthorized and/or inefficient combustion;
 - (b) deleted;
 - (c) deleted;
 - (d) failing to have appropriate consents/permits prior to undertaking Works or related activities;
 - (e) deleted;
 - (f) failure to implement remediation as instructed by the Project Manager within the specified timeframe (e.g. remediation addressing non-compliance/s).

45 Payments

- 45.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 60 days of the date of each certificate subject to clause 65.
- 45.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
- 45.3 deleted
- 45.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

46 Compensation Events

- 46.1 The following shall be Compensation Events:
- (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
 - (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
 - (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
 - (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
 - (e) The Project Manager unreasonably does not approve a subcontract to be let.
 - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.

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- (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
- (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- (i) deleted.
- (j) The effects on the Contractor of any of the Employer's Risks.
- (k) The Project Manager unreasonably delays issuing a Certificate of Completion.

46.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

46.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

46.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

47 Tax

47.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 49.

48 Currencies

48.1 Where payments are made in currencies other than the currency of the Employer's country **specified in the PCC**, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

49 Price Adjustment

49.1 Deleted.

49.2 Deleted

50 Retention

50.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the PCC** until Completion of the whole of the Works.

50.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC Sub-Clause 57.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of

PART III: CONDITIONS OF CONTRACT AND CONTRACT FORMS

this period have been corrected. The Contractor may substitute retention money with an “on demand” Bank guarantee.

51 Liquidated Damages

51.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the PCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the PCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor’s liabilities.

51.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 45.1.

52 Bonus

52.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the PCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

53 Advance Payment

53.1 The Employer shall make advance payment to the Contractor of the amounts stated in the PCC, against provision by the Contractor of an Unconditional Bank Guarantee in a form acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid. Interest shall not be charged on the advance payment.

53.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

53.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

54 Securities

54.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the PCC, by a Bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee.

55 Day works

55.1 If applicable, the Day works rates in the Contractor's Bid shall be used only for the LumpSum provisions in the BOQ or when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

55.2 All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

55.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.

56 Cost of Repairs

56.1 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 the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

57 Completion

57.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.

58 Taking Over

58.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

59 Final Account

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

60 Operating and Maintenance Manuals

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

60.2 If the Contractor does not supply the Drawings and/or manuals by the dates **stated in the PCC** pursuant to GCC Sub-Clause 60.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the PCC** from payments due to the Contractor.

61 Termination

61.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

61.2 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 Project Manager;
- (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;
- (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate;
- (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
- (f) the Contractor does not maintain a Security, which is required;
- (g) 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 the PCC**; or
- (h) if the Contractor, in the judgment of the Employer has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Employer may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.

61.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.

61.4 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.

61.5 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 61.2 above, the Project Manager shall decide whether the breach is fundamental or not.

62 Payment upon Termination

62.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered 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 specified in the PCC. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

62.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, 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.

63 Property

63.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.

64 Release from Performance

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

65 Suspension of Funds

65.1 Notwithstanding any clause or clauses or conditions contained anywhere in this Bidding document, the Employer is not obligated to immediately make the payments to the contractor in the event that the Govt of India or the State Government delays the release of funds to the Employer, from which part of the payments to the Contractor are being made; payments shall be made subject to availability of funds. In the event the Government of India or the State Government suspends the funding, the settlement of payments for the works done by the contractor will be made by co- owners of the company viz., the Government of India and the State Government based on the bills certified by the Project Manager.

66 Incomplete or unattended defective works or delays

66.1 The Employer has the right to get the uncompleted works done by other competent contractors at the risk and cost of the contractor in the following circumstances:

- (a) If the contract is terminated for the reasons attributable to the contractor
- (b) If the Contractor has delayed the work as per the schedule with no justifiable reasons.
- (c) If the Contractor fails to correct any defects in the work within the period stated in the defects notice sent by the Project Manager to the Contractor.
- (d) If the Contractor does not meet any of its obligations within the time frame of the contract specified in Section VIII GCC or Section IX PCC

APPENDIX A TO GENERAL CONDITIONS

Fraud and Corruption

Refer to Section VI

APPENDIX B

Omitted

Section IX - PARTICULAR CONDITIONS OF CONTRACT

The following Particular Conditions of Contract shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

A. General	
GCC 1.1 (d)	The financing institution is: The Smart City Mission jointly by the Govt of India and Govt of Sikkim
GCC 1.1 (r)	The Employer is Gangtok Smart City Development Limited
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be 12 months after the date of issue of letter to proceed
GCC 1.1 (y)	The Project Manager is Chief Executive Officer, GSCDL.
GCC 1.1 (aa)	<p>The Sites are located in and around Gangtok at the following locations/ areas:</p> <ol style="list-style-type: none"> 1. Below Lal Bazar at Ranipool 2. Vajra Stand-Men's Toilet 3. Vajra Stand-Women's Toilet 4. Manilakhang, Bhurtuk Helipad 5. Siliguri Stand, Deorali 6. Near Nar Bahadur Bhandari Degree Collage, Tadong 7. Below Sbi Atm at Bhurtuk 8. Adampool New Highway Below Khel Gaon 9. Fish Pond Near Palzor Stadium 10. Old Childern Park
GCC 1.1 (dd)	The Start Date shall be 15 days from the issue of letter to proceed
GCC 1.1 (hh)	<p>The Works consist of:</p> <p>Construction / Upgradation of public toilets in and around Gangtok includes: Site Leveling and Protective Works, Providing box drain, Construction of Public Toilets, Provision for internal water supply and sanitation, Provision for external sanitation system, Provision for internal electrification, etc.</p>
GCC 2.2	N.A

PART III: CONDITIONS OF CONTRACT AND CONTRACT FORMS

GCC 2.3(i)	The following documents also form part of the Contract: Engineers Estimate prepared before floating the Bid, which shall be referred to for any clarification of doubts.
GCC 3.1	The language of the contract is in English only The law that applies to the Contract is the law of the Republic of India.
GCC 5.1	The Project manager may delegate any of his duties and responsibilities.
GCC 8.1	NA
GCC 13.1	The insurance amounts and deductibles shall be as per the Labour laws.
GCC 14.1	Site Data are: 1. Site Order Book 2. Construction Drawings 3. Material Account at site 4. Royalty details
GCC 20.1	The Site Possession Date(s) shall be 15 days from the signing of the Contract.
GCC 23.1 & GCC 23.2	Not applicable
GCC 24.3	Not applicable
GCC 24.4	Institution whose arbitration procedures shall be used: Indian Arbitration Act.
B. Time Control	
GCC 30.1	The Contractor shall submit for approval a Program for the Works within seven days from the date of the Letter of Acceptance.
GCC 30.3	The period between Program updates is 15 days. The amount to be withheld for late submission of an updated Program is 5% of the amount to be paid in the running bill. The period for submission of progress reports is seven days

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C. Quality Control	
GCC 38.1	The Defects Liability Period is: 365 days.
D. Cost Control	
GCC 42.7	NA
GCC 48.1	The currency of the Employer’s Country is Indian Rupees
GCC 49.1	The Contract “is not” subject to price adjustment in accordance with GCC Clause 45.
GCC 50.1	The proportion of payments retained is: 5 percentage
GCC 51.1	The liquidated damages for the whole of the Works are [0.05 percentage of the final Contract Price] per day. The maximum amount of liquidated damages for the whole of the Works is [5 percentage] of the final Contract Price.
GCC 52.1	Omitted
GCC 53.1	The Advance Payments shall be: 15% of the Contract Price as calculated after deducting GST and Cess, shall be paid to the Contractor on submission of a valid Bank Guarantee subject to availability of funds with GSCDL.
GCC 54.1	Omitted
GCC 54.1	The Performance Security amount is 2.5 percent of the Contract Price. The Performance Security shall be in the form of the specified Bank Guarantee/TDR/FDR: [The Bank Guarantee shall be unconditional (on demand) (see Section X, Contract Forms).
E. Finishing the Contract	
GCC 60.1	The date by which operating and maintenance manuals are required is not applicable.

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	The date by which “as built” drawings are required is fifteen day of final measurements but before release of final bill.
GCC 60.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC Sub-Clause 60.1 is Rupees Five Lakh only
GCC 61.2 (g)	The maximum number of days is: 100 days
GCC 62.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is twenty percent

Appendix-1 Environmental Monitoring Plan

(Deleted)

Appendix-2 Environmental Management Plan

-deleted-

Section X - CONTRACT FORMS

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Notification of Intention to Award

[This Notification of Intention to Award shall be sent to each Bidder that submitted a Bid.]

[Send this Notification to the Bidder's Authorized Representative named in the Bidder Information Form]

For the attention of Bidder's Authorized Representative

Name: [insert Authorized Representative's name]

Address: [insert Authorized Representative's Address]

Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers]

Email Address: [insert Authorized Representative's email address]

[IMPORTANT: insert the date that this Notification is transmitted to Bidders. The Notification must be sent to all Bidders simultaneously. This means on the same date and as close to the same time as possible.]

DATE OF TRANSMISSION: This Notification is sent by: [email/fax] on [date] (local time)

Notification of Intention to Award

Employer: Gangtok Smart City Development Ltd

Project: Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)

Country: India

RFB No: 012/GSCDL/2022, Project identification No: SIK-GAN-027.

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. If required, you may:

- a) request a debriefing in relation to the evaluation of your Bid, and/or
- b) submit a Procurement-related Complaint in relation to the decision to award the contract within three days of issue of this notice.

1. The successful Bidder

Name:	[insert name of successful Bidder]
Address:	[insert address of the successful Bidder]
Contract price:	[insert contract price of the successful Bid]

2. Other Bidders [INSTRUCTIONS: insert names of all Bidders that submitted a Bid. If the Bid's price was evaluated, include the evaluated price as well as the Bid price as read out.]

Name of Bidder	Bid price	Evaluated Bid price (if applicable)
[insert name]	[insert Bid price]	[insert evaluated price]
[insert name]	[insert Bid price]	[insert evaluated price]
[insert name]	[insert Bid price]	[insert evaluated price]

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Name of Bidder	Bid price	Evaluated Bid price (if applicable)
[insert name]	[insert Bid price]	[insert evaluated price]
[insert name]	[insert Bid price]	[insert evaluated price]

3. Reason/s why your Bid was unsuccessful

[INSTRUCTIONS: State the reason/s why this Bidder's Bid was unsuccessful. Do NOT include: (a) a point by point comparison with another Bidder's Bid or (b) information that is marked confidential by the Bidder in its Bid.]

4. How to request a debriefing

DEADLINE: The deadline to request a debriefing expires at midnight on [insert date] (local time).

You may request a debriefing in relation to the results of the evaluation of your Bid. If you decide to request a debriefing your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award.

Provide the contract name, reference number, name of the Bidder, contact details; and address the request for debriefing as follows:

Attention: Mr. Bhupendra Kothari, Chief Executive Officer

Address: Gangtok Smart City Development Limited, Level V, Kissan Bazar, Gangtok, East Sikkim

City: Gangtok, Pin Code:737101, India

Phone Number: 8116679989

Electronic mail address: ctosmartcity.gangtok@gmail.com. If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) Business Days of receipt of your request.

The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

5. How to make a complaint

Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [insert date] (local time).

Provide the contract name, reference number, name of the Bidder, contact details; and address the Procurement-related Complaint as follows:

Attention: Mr. Bhupendra Kothari, Chief Executive Officer

Address: Gangtok Smart City Development Limited, Level V, Kissan Bazar, Gangtok, East Sikkim

City: Gangtok, Pin Code: 737101, India

Phone Number: 8116679989

Electronic mail address: ctosmartcity.gangtok@gmail.com

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In summary, there are four essential requirements:

1. You must be an ‘interested party’. In this case, that means a Bidder who submitted a Bid in this bidding process, and is the recipient of a Notification of Intention to Award.
2. The complaint can only challenge the decision to award the contract.
3. You must submit the complaint within the period stated above.
4. You must include, in your complaint, all of the information required.

If you have any questions regarding this Notification, please do not hesitate to contact us.

On behalf of the Employer:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

Email: _____

Letter of Acceptance

---- on letterhead paper of the Employer ----

..... *date*

To: *name and address of the Contractor*

Subject: *Notification of Award Contract No.*

Dear Sir

This is to notify you that your Bid dated **[insert date]** for execution of the
..... **[insert name of the contract and identification number, as given in
the PCC]** for the Accepted Contract Amount of
.....**[insert amount in numbers and words and name of currency]**, as corrected and modified
in accordance with the Instructions to Bidders is hereby accepted by Gangtok Smart City
Development Limited.

You are requested to furnish the stipulated Performance Security and Signed Agreement within
28 days in accordance with the Conditions of Contract, using for that purpose the format of the
Performance Security Form and

We accept that the Chief Engineer UDD, Govt of Sikkim, be appointed as the Adjudicator.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made theday of, between **Gangtok Smart City Development Limited** (hereinafter “the Employer”), of the one part, and [**name of the Contractor**]. . . .(hereinafter “the Contractor”), of the other part:

WHEREAS the Employer desires that the Works known as **Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)** should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (a) the Letter of Acceptance
 - (b) the Letter of Bid
 - (c) the addenda Nos _____(if any)
 - (d) the Particular Conditions
 - (e) the General Conditions of Contract, including appendix;
 - (f) the Specifications
 - (g) the Drawings
 - (h) Bill of Quantities; and
 - (i) The entire Bidding Document and the Engineers Estimate.
3. In consideration of the payments to be made by the Employer to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, 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.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of the Republic of India on the day, month and year specified above.

PART III: CONDITIONS OF CONTRACT AND CONTRACT FORMS

Signed by

Signed by

for and on behalf of the Employer

for and on behalf the Contractor

in the presence of:

in the presence of:

Witness, Name, Signature, Address, Date

Witness, Name, Signature, Address, Date

Performance Security - Bank Guarantee

Bank Guarantee

[Guarantor letterhead of a Nationalized Bank, Branch and IFSC Code]

Applicant: [Insert name and Address of Contractor]

Beneficiary: Gangtok Smart City Development Limited, Level V, Kissan Bazar, Gangtok, East Sikkim

Date: [Insert date of issue]

BANK GUARANTEE No.: [Insert guarantee reference number]

Guarantor: [Insert name and address of Bank and place of issue,]

We have been informed that [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called “the Applicant”) has entered into Contract No. [insert reference number of the contract] dated [insert date] with the Beneficiary, for the execution of [insert name of contract and brief description of Works] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a Performance Security in the sum [insert amount in figures] () [insert amount in words] is to be made against a Bank Guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of [insert amount in figures] () [insert amount in words] upon receipt by us of the Beneficiary’s written demand.

This guarantee shall expire, on the [insert day] day of [insert month], 2 [insert year], whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

Advance Payment Security (Unconditional)

Bank Guarantee

[Guarantor letterhead of a Nationalized Bank, Branch and IFSC Code]

Applicant: [Insert name and Address of Contractor]

Beneficiary: Gangtok Smart City Development Limited

Date: [Insert date of issue]

BANK GUARANTEE No.: [Insert guarantee reference number]

Guarantor: [Insert name and address of Bank and place of issue,]

We have been informed that [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Applicant") has entered into Contract No. [Insert reference number of the contract] dated [insert date] with the Beneficiary, for the execution of [insert name of contract and brief description of Works] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum [insert amount in figures] () [insert amount in words] is to be made against a Bank Guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of [insert amount in figures] () [insert amount in words] upon receipt by us of the Beneficiary's written demand.

This guarantee shall expire, on the [insert day] day of [insert month], 2 [insert year], whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

Unconditional Bank Guarantee in Lieu of Retention Money

To: .

Gangtok Smart City Development Limited represented by the Chief Executing Officer, Level 5,
Kissan Bazaar, Gangtok-737101, Sikkim (India) .

Subject:

Dear Sir

WHEREAS _____ [name and address of contractor] (hereinafter called the —Contractor) has undertaken, in pursuance of Contract No. _____ dated _____ to **“Construction / Upgradation of public toilets in and around Gangtok, East Sikkim (including Defect Liability Period of One Year)”**

(herein after called the —Contract.);

AND WHEREAS IT HAS BEEN AGREED BY YOU IN THE SAID contract that the Contractor has option to replace the Retention Money with an irrevocable and unconditional Bank Guarantee, in instalments of _____ (*indicate the value*) from a Bank acceptable to you as security for compliance with contractor’s obligations in accordance with the contract (Sub-clause 45.2 of Particular Conditions of Contract).

AND WHEREAS the Contractor has opted to replace the retention money with an irrevocable and unconditional 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 figures*],

_____ [*amount in words*],[#] such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

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

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

This guarantee shall be valid till the Project Manager certifies repayment of retention money in accordance with Sub-clause 45.2 of Particular Conditions of Contract i.e., upto

SIGNATURE AND SEAL OF THE GUARANTOR

Name of the Bank: _____

Address: _____

Date: _____

An amount is to be inserted by the Guarantor, representing the amount specified in the Contract, and denominated either in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer.