STIMULATING URBAN NORMS FOR RIGOROUS IMPROVEMENT IN SANITATION ENVIRONMENT (SUNRISE)

TENDER DOCUMENT FOR PROCUREMENT OF WORKS

Construction of Public Toilet at Chowhatta Point, Sylhet

Contents

Section 1: Invitation for Tenders

Section 2: Instruction to Tenderers

Section 3: Tender Data Sheet

Section 4: General Condition of Contracts

Section 5: Particular Condition of Contracts

Section 6: Tender and Contract Forms

Section 7: Bill of Quantities

Section 8: Technical Specification

Section 9: Drawings

Issued by : WaterAid Bangladesh

Section 1: Invitation for Tenders

BASIC INFORMATION

1	Employer	WaterAid Bangladesh
2	Procuring Entity Name	WaterAid Bangladesh
3	Procuring Entity District	Dhaka, Bangladesh
4	Invitation for	Construction of public toilet at Chowhatta Point, Sylhet

KEY INFORMATION

6	Procurement Method	Open Tendering Method (OTM)
7	Invitation of Tender	www.bdjobs.com and local daily newspaper

FUNDING INFORMATION

8	Budget and Source of Fund	WaterAid Bangladesh

PARTICULAR INFORMATION

9	Project Name	Stimulating Urban Norms for Rigorous Improvement in Sanitation Environment (SUNRISE)
10	Tender Package No.	SUNRISE/WAB/PT/Chowhatta Ponit, Sylhet
11	Tender Package Name	Construction of public toilet at Chowhatta Point, Sylhet
12	Lot No.	01
13	Tender Publication Date	05 December, 2017
14	Tender Last Selling Time and Date	05:00 PM on 14 December, 2017
15	Tender Closing Time and Date	02:00 PM on 17 December, 2017
16	Tender Opening Time and Date	03:00 PM on 17 December, 2017
17	Availability of Tender Documents	a. WaterAid Bangladesh House No: 97/B, Block No: A, Road No: 25 Banani, Dhaka-1212

		b. Institute of Development Affairs House- 41/A, Main Road, Block-A Shahjalal Upashahar, Sylhet- 3100
18	Submission of Tender	WaterAid Bangladesh House No: 97/B, Block No: A, Road No: 25 Banani, Dhaka-1212
19	Place/Date for Pre-tender Meeting (Optional)	N/A

INFORMATION FOR TENDERER

20	Brief Eligibility and Qualification of Tenderer	Preferable 3-5 years working experience in civil engineering construction works with budget of minimum Tk. 25 Lacs
21	Brief Description of Works	Construction of public toilet at Chowhatta Point, Sylhet
22	Price of Tender Documents	Tk. 2,000
23	Tender Security Amount (Tk.)	Tk. 1,00,000 (One lac taka only)
24	Construction Completion Time	6 months

PROCURING ENTITY DETAILS

25	Name of Official Inviting Tender	A.B.M. Mobasher Hossain
26	Designation of Official Inviting Tender	Project Manager, SUNRISE Project, WaterAid Bangladesh
27	Address of Official Inviting Tender	WaterAid Bangladesh House No: 97/B, Block No: A, Road No: 25 Banani, Dhaka-1212
28	Contact Details of for any query	Tel.: +880-2-881-5757, 8818521 Fax: +880-2-988-2577 Email: ABMMobasherHossain@wateraid.org

The procuring Entity reserves the right to reject all the Tenders or annul the Tender Proceedings

Section 2: Instruction to Tenderers

A. General

1. Scope of Tender

1.1 The Procuring Entity, as identified in the Tender Data Sheet (TDS) issues this Tender Document for the procurement of works and associated services incidental thereto as specified in the TDS and as detailed in the **Section 7: Bill of Quantities**. The name of the Tender and the number and identification of its constituent lot(s) are stated in the TDS.

1.2 The successful Tenderer shall be required to execute the works and physical services as specified in the General Conditions of Contract.

2. Interpretation

2.1 Throughout this Tender Document:

(a) The term "in writing" means communication written by hand or machine duly signed and includes properly authenticated messages by facsimile or electronic mail;

(b) If the context so requires, singular means plural and vice versa;

(c) "Employers" mean WaterAid Bangladesh and their authorized representatives;

(d) "day" means calendar days unless otherwise specified as working days;

(e) "Person" means and includes an individual, body of individuals, sole proprietorship, partnership, company, association or cooperative society that wishes to participate in Procurement proceedings;

(f) "Tenderer" means a person who submits a Tender;

(g) "Tender Document" means the document provided by Procuring Entity to a Tenderer as a basis for preparation of the Tender; and

(h) "Tender" depending on the context, means a Tender submitted by a Tenderer for execution of works and physical services to a Procuring Entity in response to an Invitation for Tenders.

3. Source of Fund

3.1 Source of fund will be WaterAid Bangladesh.

4. Corrupt, Fraudulent, Collusive, Coercive or

4.1 The Employers require that Procuring Entities, as well as Tenderers and Contractors (including their suppliers, sub-contractors, agents, personnel, consultants, and service providers) shall observe the highest standard of ethics during

Obstructive Practices

implementation of procurement proceedings and the execution of Contracts under public funds.

4.2 For the purposes of ITT Sub Clause 4.3, the terms set forth below as follows:

(a) "corrupt practice" means offering, giving or promising to give, receiving, or soliciting either directly or indirectly, to any officer or employee of a Procuring Entity or other public or private authority or individual, a gratuity in any form; employment or any other thing or service of value as an inducement with respect to an act or decision or method followed by a Procuring Entity in connection with a Procurement proceeding or Contract execution;

(b) "fraudulent practice" means any act or the misrepresentation or omission of facts in order to influence a decision to be taken in a Procurement proceeding or Contract execution or that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

(c) "collusive practice" means a scheme or arrangement between two (2) or more Persons, with or without the knowledge of the Procuring Entity, that is designed to arbitrarily reduce the number of Tenders submitted or fix Tender prices at artificial, non-competitive levels, thereby denying a Procuring Entity the benefits of competitive price arising from genuine and open competition; or which is designed to achieve an improper purpose, including influencing improperly the actions of another party;

(d) "coercive practice" means impairing, or harming or threatening to impair or harm, directly or indirectly, Persons or their property to influence improperly the actions of a party or to influence a decision to be taken in the Procurement proceeding or the execution of a Contract, and this will include creating obstructions in the normal submission process used for Tenders.

(e) "obstructive practice" means deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an 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 right of the Development Partner to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by

the auditors appointed by the Development Partner or the government.

4.3 Should any corrupt, fraudulent, collusive, coercive or obstructive practice of any kind come to the knowledge of the Procuring Entity or the Employer, it will, in the first place, allow the Tenderer to provide an explanation and shall, take actions only when a satisfactory explanation is not received. Such exclusion and the reasons thereof, shall be recorded in the record of the procurement proceedings and promptly communicated to the Tenderer concerned. Any communications between the Tenderer and the Procuring Entity related to matters of alleged corrupt, fraudulent, collusive, coercive, or obstructive practices shall be in writing.

5. Eligible Tenderers

5.1 This Invitation for Tenders is open to all potential Tenderers from all over Bangladesh.

5.2 The Tenderer shall have the legal capacity to enter into the Contract.

5.3 Tenderers should not be associated, or have been associated in the past, directly or indirectly, with a consultant or any of its affiliates which have been engaged by the Procuring Entity to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the works to be performed under this Invitation for Tenders.

5.4 The Tenderer shall not be insolvent, be in receivership, be bankrupt, be in the process of bankruptcy, be not temporarily barred from undertaking business and it shall not be the subject of legal proceedings for any of the foregoing.

5.5 The Tenderer shall have fulfilled its obligations to pay taxes and social security contributions under the provisions of laws and regulations of the country of its origin.

5.6 Tenderers shall provide such evidence of their continued eligibility satisfactory to the Procuring Entity, as the Procuring Entity will reasonably request.

6. Eligible Materials, Equipment and Associated Services

6.1 All materials, equipment and associated services to be supplied under the Contract are from eligible sources, unless their origin is from a country specified in the TDS.

6.2 For the purposes of this Clause, “origin” means the place where the Materials and Equipment are mined, grown, cultivated, produced or manufactured or processed, or through manufacturing, processing, or assembly, another commercially recognized new product results that differs substantially in its basic characteristics from its components or the place from which the associated services are supplied.

6.3 The origin of materials and equipment and associated services is distinct from the nationality of the Tenderer.

7. Site Visit

7.1 The Tenderer 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 Tender and entering into a contract for construction of the Works.

7.2 The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter into its premises and lands for the purpose of such visit, but only upon the express condition that the Tenderer, its personnel, and agents will release and indemnify the Procuring Entity 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.

7.3 The Tenderer should ensure that the Procuring Entity is informed of the visit in adequate time to allow it to make appropriate arrangements.

7.4 The costs of visiting the Site shall be at the Tenderer's own expense.

B. Tender Document

8. General

8.1 The Sections comprising the Tender Document are listed below, and should be read in conjunction with any Addendum issued under ITT Clause 11.

- Section 1 Invitation to Tender
- Section 2 Instructions to Tenderers (ITT)
- Section 3 Tender Data Sheet (TDS)
- Section 4 General Conditions of Contract (GCC)
- Section 5 Particular Conditions of Contract (PCC)
- Section 6 Tender and Contract Forms
- Section 7 Bill of Quantities (BOQ)
- Section 8 Technical Specifications
- Section 9 Drawings

8.2 The Procuring Entity is not responsible for the completeness of the Tender Document and their addenda, if these were not purchased directly from the Procuring Entity, or through its agent(s) as stated in the TDS.

8.3 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document as well as in any addendum to the Tender Document.

9. Clarification of Tender Document

9.1 A prospective Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address and within time as indicated in the TDS.

9.2 A Procuring Entity is not obliged to answer any clarification request received after that date as stated under ITT Sub Clause 9.1.

9.3 The Procuring Entity shall respond in writing within five (5) working days of receipt of any such request for clarification received under ITT Sub Clause 9.1.

9.4 The Procuring Entity shall forward copies of its response to all those who have purchased the Tender Document, including a description of the enquiry but without identifying its source.

9.5 Should the Procuring Entity deem it necessary to revise the Tender Document as a result of a clarification, it will do so following the procedure under ITT Clause 11 and ITT Sub Clause 42.2.

10. Pre-Tender Meeting

10.1 To clarify issues and to answer questions on any matter arising in the Tender Document, the Procuring Entity may, if stated in the TDS, hold a pre-Tender Meeting at the place,

date and time as specified in the TDS. All potential Tenderers are encouraged and invited to attend the meeting, if it is held.

10.2 The Tenderer is requested to submit any questions in writing so as to reach the Procuring Entity no later than one day prior to the date of the meeting.

10.3 Minutes of the pre-Tender meeting, including the text of the questions raised and the responses given, together with any responses prepared after the meeting, will be transmitted within five (5) working days after holding the meeting to all those who purchased the Tender document and to even those who did not attend the meeting. Any revision to the Tender document listed in ITT Sub-Clause 8.1 that may become necessary as a result of the pre-Tender meeting will be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT Sub Clause 11 and not through the minutes of the Pre-Tender meeting.

10.4 Non-attendance at the Pre-Tender meeting will not be a cause for disqualification of a Tenderer.

11. Addendum to Tender Document

11.1 At any time prior to the deadline for submission of Tenders, the Procuring Entity, on its own initiative or in response to an inquiry in writing from a Tenderer, having purchased the Tender Document, or as a result of a Pre-Tender meeting may revise the Tender Document by issuing an Addendum pursuant to Rule 95 of the Public Procurement Rules 2008.

11.2 The Addendum issued under ITT Sub Clause 11.1 shall become an integral part of the Tender Document and shall have a date and an issue number and must be circulated by fax, mail or e-mail, to Tenderers who have purchased the Tender Documents, within five (5) working days.

11.3 The Tenderers will acknowledge receipt of an Addendum within three (3) working days.

11.4 Procuring Entities shall also ensure posting of the relevant addenda with the reference number and date on their websites including notice boards, where the Procuring Entities had originally posted the IFTs.

11.5 To give a prospective Tenderer reasonable time in which to take an addendum into account in preparing its Tender, the Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders, pursuant to ITT Sub Clause 42.2.

11.6 If an addendum is issued when time remaining is less than one-third of the time allowed for the preparation of Tenders, a Procuring Entity at its discretion shall extend the deadline by an appropriate number of days for the submission of Tenders, depending upon the nature of the Procurement

requirement and the addendum. In any case, the minimum time for such extension shall not be less than three (3) working days.

C. Qualification Criteria

12. General Criteria	12.1	The Tenderer shall possess the necessary professional and technical qualifications and competence, financial resources, equipment and other physical facilities, managerial capability, specific experience, reputation, and the personnel, to perform the contract.
	12.2	To qualify for multiple number of contracts/lots in a package made up of this and other individual contracts/lots for which tenders are invited in the Invitation for Tenders, the Tenderer shall demonstrate having resources and experience sufficient to meet the aggregate of the qualifying criteria for the individual contracts.
13. Litigation	13.1	All pending litigation shall be treated as resolved against the Tenderer and so shall in total not represent more than the total percentage of the Tenderer's net worth.
14. Experience Criteria	14.1	The Tenderer shall have the following minimum level of construction experience to qualify for the performance of the Works under the Contract: (a) a minimum number of years of general experience in the construction of works as Prime Contractor or Subcontractor or Management Contractor as specified in the TDS; and (b) Specific experience as a Prime Contractor or Subcontractor or Management Contractor in construction works of a nature, complexity and methods/construction technology similar to the proposed Works in at least a number of contract(s) and of a minimum value over the period, as specified in the TDS.
15. Financial Criteria	15.1	The Tenderer shall have the following minimum level of financial capacity to qualify for the performance of the Works under the Contract: (a) the average annual construction turnover as specified in the TDS during the period specified in the TDS; and (b) availability of minimum liquid assets or working capital or credit facilities, as specified in the TDS.
16. Personnel Capacity	16.1	The Tenderer shall have the following minimum level of personnel capacity to qualify for the performance of the Works under the Contract:

(a) a Construction Project Manager and an Engineer, and other key staff with qualifications and experience as specified in the TDS.

17. Equipment Capacity	17.1	The Tenderer shall own suitable equipment and other physical facilities or have proven access through contractual arrangement to hire or lease such equipment or facilities for the desired period, where necessary or have assured access through lease, hire, or other such method, of the essential equipment, in full working order, as specified in the TDS.
18. Subcontractor(s)	18.1	A Tenderer may intend to subcontract an activity or part of the Works, in which case such elements and the proposed Subcontractor shall be clearly identified.
	18.2	The Procuring Entity may require Tenderers to provide more information about their subcontracting arrangements. If any Subcontractor is found ineligible or unsuitable to carry out the subcontracted tasks, the Procuring Entity may request the Tenderer to propose an acceptable substitute.
	18.3	The Procuring Entity may also select nominated Subcontractor(s) to execute certain specific components of the Works and if so, those will be specified in the TDS.
	18.4	The successful Tenderer shall under no circumstances assign the Works or any part of it to a Subcontractor.

D. Tender Preparation

19. Only one Tender	19.1	A Tenderer shall submit only one (1) Tender for each package. The Tenderer who submits or participates in more than one (1) Tender in one (1) package will cause all the Tenders of that particular Tenderer to be rejected.
20. Cost of Tendering	20.1	The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.
21. Issuance and Sale of Tender Document	21.1	A Procuring Entity shall make Tender Documents available immediately to the potential Tenderers, requesting and willing to purchase at the corresponding price if the advertisement has been published in the newspaper.
	21.2	There shall not be any pre-conditions whatsoever, for sale of Tender Documents and the sale of such Document shall be permitted up to the day prior to the day of deadline for the submission of Tender.

22. Language of Tender	22.1	The Tender shall be written in the English language. Correspondences and documents relating to the Tender will be written in English. Supporting documents and printed literature furnished by the Tenderer that are part of the Tender may be in another language, provided they are accompanied by an accurate translation of the relevant passages in the English language, in which case, for purposes of interpretation of the Tender, such translation shall govern.
	22.2	The Tenderer shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.
23. Contents of Tender	23.1	The Tender prepared by the Tenderer will comprise the following: (a) the Tender Submission Letter in accordance with ITT Clause 24 (Form PW3-1); (b) Tenderer Information in accordance with ITT Clauses 5,28 and 31 (Form PW3-2); (c) the priced Bill of Quantities for the package in accordance with ITT Clauses 24,26 and 27; (d) Tender Security as stated under ITT Clauses 34, 35 and 36; (e) alternatives, if permissible, as stated under ITT Clause 25; (f) written confirmation authorizing the signatory of the Tender to commit the Tenderer, as stated under ITT Sub Clause 39.3; (g) Valid Trade license; (h) documentary evidence of Tax Identification Number (TIN) and Value Added Tax (VAT) as a proof of taxation obligations; (i) documentary evidence as stated under ITT Clause 28 establishing the Tenderer's qualifications to perform the Contract if its tender is accepted; (j) Technical Proposal describing work plan & method, personnel, equipment and schedules as stated under ITT Clause 30; (k) documentary evidence as stated under ITT Clause 31 establishing the minimum qualifications of the Tenderer required to be met for due performance of the Works and physical services under the Contract; and (l) any other document as specified in the TDS.

24. Tender Submission Letter and Bill of Quantities	24.1	The Tenderer shall submit the Tender Submission Letter (Form PW3-1), which shall be completed without any alterations to its format, filling in all blank spaces with the information requested, failing which the Tender may be rejected as being incomplete.
	24.2	The Tenderer shall submit the priced Bill of Quantities using the form(s) furnished in Section 7: Bill of Quantities.
	24.3	If in preparing its Tender, the Tenderer has made errors in the unit rate or price or the total price, and wishes to correct such errors prior to submission of its Tender, it may do so, but shall ensure that each correction is initialed by the authorized person of the Tenderer.
25. Alternatives	25.1	Unless otherwise stated in the TDS, alternatives shall not be considered.
	25.2	When alternative times for completion are explicitly invited, a statement to that effect will be included in the TDS, as will the method of evaluating different times for completion.
	25.3	Except as provided under ITT Sub Clause 25.4, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, designs, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details.
	25.4	When specified in the TDS, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the TDS.
	25.5	Only the technical alternatives, if any, of the lowest evaluated Tenderer conforming to the basic technical requirements will be considered by the Procuring Entity.
26. Tender Prices, Discounts and Price Adjustment	26.1	The prices and discounts quoted by the Tenderer in the Tender Submission Letter (Form PW3-1) and in the Bill of Quantities (BOQ) shall conform to the requirements specified below.
	26.2	The Tenderer shall fill in unit rates or prices for all items of the Works both in figures and in words as described in the BOQ.
	26.3	The items quantified in the BOQ for which no unit rates or prices have been quoted by the Tenderer will not be paid for, by the Procuring Entity when executed and shall be deemed covered by the amounts of other rates or prices in the BOQ and, it shall not be a reason to change the Tender price.

26.4 The Procuring Entity may, if necessary, require the Tenderer to submit the detail breakdown of the unit rates or prices quoted by the Tenderer for the facilitation of the Tender proceedings.

26.5 The price to be quoted in the Tender Submission Letter, as stated under ITT Sub Clause 24.1, shall be the total price of the Tender, excluding any discounts offered.

26.6 The Tenderer shall quote any unconditional discounts and the methodology for application of discount in the Tender Submission Letter as stated under ITT Sub Clause 24.1.

26.7 Tenderers wishing to offer any price reduction for the award of more than one lot shall specify in their Tender the price reductions applicable to each lot, or alternatively, to any combination of lots within the package. Price reductions or discounts will be submitted as stated under ITT Sub Clause 27.1, provided the Tenders for all lots are submitted and opened together.

26.8 All applicable taxes, custom duties, VAT and other levies payable by the Contractor under the Contract, or for any other causes, as of the date twenty-eight (28) days prior to the deadline for submission of Tenders, shall be included in the unit rates and prices and the total Tender price submitted by the Tenderer.

26.9 Unless otherwise provided in the TDS and the Contract, the price of a Contract shall be fixed in which case the unit rates or prices may not be modified in response to changes in economic or commercial conditions.

27. Tender Currency

27.1 The Tenderer shall quote all prices in the Tender Submission Letter and in the Bill of Quantities in Bangladesh Taka currency unless otherwise specified in the TDS.

28. Documents Establishing Eligibility of the Tenderer

28.1 A Tenderer, if applying as a sole Tenderer, shall submit documentary evidence to establish its eligibility as stated under ITT Clause 5 and, in particular, it shall:

(a) complete the eligibility declarations in the Tender Submission Letter (Form PW3-1);
(b) complete the Tenderer Information (Form PW3-2);

(c) provide completed Subcontractor Information (Form PW3-4), if it intends to engage any Subcontractor(s).

29. Documents Establishing the Eligibility and Conformity of Materials, Equipment and Services

29.1 The Tenderer shall submit documentary evidence to establish the origin of all Materials, Equipment and services to be supplied under the Contract as stated under ITT Clause 6.

29.2 To establish the conformity of the Materials, Equipment and services to be supplied under the Contract, the Tenderer shall furnish, as part of its Tender, the documentary evidence (which may be in the form of literature, specifications and brochures, drawings or data) that these conform to the technical specifications and standards specified in Section 8, Technical Specifications.

30. Documents Establishing Technical Proposal

30.1 The Tenderer shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in TDS, in sufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work requirements and the completion time.

31. Documents Establishing the Tenderer's Qualification

31.1 Tenderers shall complete and submit the Tenderer Information (Form PW3-2) and shall include documentary evidence, as applicable to satisfy the following:

a) general experience of construction works as stated under ITT Sub Clause 14.1(a);

b) specific experience in construction works of similar nature and size as stated under ITT Sub Clauses 14.1(b);

c) average annual construction turnover for a period as stated under ITT Sub Clause 15.1(a);

d) adequacy of working capital for this Contract i.e. access to line(s) of credit and availability of other financial resources as stated under ITT Sub Clause 15.1(b);

e) technical and administrative personnel along with their qualification and experience proposed for the Contract as stated under ITT Clause 16;

f) major items of construction equipment proposed to carry out the Contract as stated under ITT Clause 17;

g) authority to seek references from the Tenderer's bankers or any other sources.

h) information regarding any litigation, current or during the last five years, in which the Tenderer is involved, the parties concerned, and disputed amount;
i) reports on the financial standing of the Tenderer, such as profit and loss statements and auditor's reports for the past five years.

31.2 A Procuring Entity shall disqualify a Tenderer who submits a document containing false information for purposes of qualification or mislead or makes false representations in

proof of qualification requirements. A Procuring Entity may declare such a Tenderer ineligible, either indefinitely or for a stated period of time, from participation in future procurement proceedings

31.3 A Procuring Entity may disqualify a Tenderer if it finds at any time that the information submitted concerning the qualifications of the Tenderer was materially inaccurate or materially incomplete.

32. Validity Period of Tender

32.1 Tenders shall remain valid for the period specified in the TDS after the date of Tender submission deadline prescribed by the Procuring Entity. A Tender valid for a period shorter than that specified will be rejected by the Procuring Entity as non-responsive.

33. Extension of Tender Validity and Tender Security

33.1 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may solicit the Tenderers' consent to an extension of the period of validity of their Tenders.

33.2 The request and the responses shall be made in writing. Validity of the tender security provided under ITT Clause 34 shall also be suitably extended for twenty eight (28) days beyond the new date for the expiry of the Tender Validity. If a Tenderer does not respond or refuses the request it shall not forfeit its tender security, but its tender shall no longer be considered in the evaluation proceedings. A Tenderer agreeing to the request will not be required or permitted to modify its tender.

34. Tender Security

34.1 The Tenderer shall furnish as part of its Tender, in favour of the Procuring Entity or as otherwise directed on account of the Tenderer, a Tender Security in original form and in the amount, as specified in the TDS.

35. Form of Tender Security

35.1 The Tender Security shall:

(a) at the Tenderer's option, be either;

i. in the form of a bank draft or pay order, or

ii. in the form of an irrevocable bank guarantee issued by a scheduled Bank of Bangladesh, in the format (Form PW3-6) furnished in Section 6: Tender and Contract Forms;

(b) be payable promptly upon written demand by the Procuring Entity in the case of the conditions listed in ITT Sub Clause 39 being invoked; and

(c) remain valid for at least twenty eight (28) days beyond the expiry date of the Tender Validity in order to make a claim in

due course against a Tenderer in the circumstances as stated under ITT Sub Clause 38.1.

36. Authenticity of Tender Security	36.1	The authenticity of the Tender Security submitted by a Tenderer may be examined and verified by the Procuring Entity at its discretion in writing from the Bank issuing the security.
	36.2	If a Tender Security is found to be not authentic, the Procuring Entity may proceed to take measures against that Tenderer as stated under ITT Sub Clause 4.4.
	36.3	A Tender not accompanied by a valid Tender Security will be rejected by the Procuring Entity.
37. Return of Tender Security	37.1	No Tender Securities shall be returned by the Tender Opening Committee (TOC) during and after the opening of the Tenders.
	37.2	No Tender Security shall be returned to the Tenderers before contract signing, except to those who are found unsuccessful.
	37.3	Unsuccessful Tenderer's tender security will be discharged or returned as soon as possible but within 28 days of the end of the tender validity period specified in ITT Sub-Clauses 32.1.
	37.4	The Tender Security of the Successful Tenderer will be discharged upon the Tenderer's furnishing of the performance security pursuant to ITT Clause 32 and signing the Agreement.
38. Forfeiture of Tender Security	38.1	The Tender Security may be forfeited, if a Tenderer: (a) withdraws its Tender after opening of Tenders but within the validity of the Tender as stated under ITT Clause 32 and 33; or (b) refuses to accept a Notification of Award as stated under ITT Sub Clause 62.1; or (c) fails to furnish Performance Security as stated under ITT Sub Clause 63.1 and 63.2; or (d) refuses to sign the Contract as stated under ITT Sub Clause 68.2 ; or (e) does not accept the correction of the Tender price following the correction of the arithmetic errors as stated under ITT Clause 54.
39. Format and Signing of Tender	39.1	The Tenderer shall prepare one (1) original of the documents comprising the Tender as described in ITT Clause 23 and clearly mark it "ORIGINAL."

39.2 Alternatives, if permitted in accordance with ITT Clause 25, shall be clearly marked “Alternative”.

39.3 The original copy of the Tender shall be typed or written in indelible ink and shall be signed by the Person duly authorized to sign on behalf of the Tenderer. This authorization shall be attached to the Tender Submission Letter (Form PW3-1). The name and position held by each Person(s) signing the authorization must be typed or printed below the signature. All pages of the original copy of the Tender, except for un-amended printed literature, shall be numbered sequentially and signed or initialed by the person signing the Tender.

39.4 Any interlineations, erasures, or overwriting will be valid only if they are signed or initialed by the Person(s) signing the Tender.

E. Tender Submission

40. Sealing, Marking and Submission of Tender

40.1 The Tenderer shall enclose the original in one (1) sealed envelope and all the copies of the Tender, including the alternatives, if permitted under ITT Clause 25, in another sealed envelope, duly marking the envelopes as “ORIGINAL”

40.2 The inner and outer envelopes shall:

(a) be addressed to the Procuring Entity at the address as stated under ITT Sub Clause 41.1;

(b) bear the name of the Tender and the Tender Number as stated under ITT Sub Clause 1.1;

(c) bear the name and address of the Tenderer;
(d) bear a statement “DO NOT OPEN BEFORE ----------” the time and date for Tender opening as stated under ITT Sub Clause 47.2;

(e) bear any additional identification marks as specified in the TDS.

40.3 The Tenderer is solely and entirely responsible for pre-disclosure of Tender information if the sealed envelope(s) are not properly sealed and marked.

40.4 Tenders shall be delivered by hand or by mail, including courier services at the address(s) as stated under ITT Sub Clause 41.1.

40.5 The Procuring Entity will, on request, provide the Tenderer with acknowledgement of receipt showing the date and time when it’s Tender was received.

41. Deadline for Submission of Tender	41.1	Tenders shall be delivered to the Procuring Entity at the address specified in the TDS and no later than the date and time specified in the TDS.
	41.2	The Procuring Entity may, at its discretion, extend the deadline for submission of Tender as stated under ITT Sub Clause 41.1, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline will thereafter be subject to the new deadline as extended.
	41.3	The submission of Tenders will not be allowed in more than one place.
42. Late Tender	42.1	Any Tender received by the Procuring Entity after the deadline for submission of Tenders as stated under ITT Sub Clause 41.1 shall be declared LATE, rejected, and returned unopened to the Tenderer.
43. Notice for Modification, Substitution or Withdrawal of Tender	43.1	A Tenderer may modify, substitute or withdraw its Tender after it has been submitted by sending a written notice duly signed by the authorized signatory and properly sealed, and shall include a copy of the authorization; provided that such written notice including the affidavit is received by the Procuring Entity prior to the deadline for submission of Tenders as stated under ITT Clause 41.
44. Tender Modification	44.1	The Tenderer shall not be allowed to retrieve its original Tender, but shall be allowed to submit corresponding modification to its original Tender marked as “MODIFICATION”.
45. Tender Substitution	45.1	The Tenderer shall not be allowed to retrieve its original Tender, but shall be allowed to submit another Tender marked as “SUBSTITUTION”.
46. Tender Withdrawal	46.1	The Tenderer shall be allowed to withdraw its Tender by a Letter of Withdrawal marked as “WITHDRAWAL”.

F. Tender Opening and Evaluation

47. Tender Opening	47.1	Tenders shall be opened in one location, immediately, but no later than one hour, after the deadline for submission of Tenders at the place as specified in the TDS.
	47.2	Persons not associated with the Tender may, as directed by the Chairperson of the Tender Opening Committee, not be allowed to attend the public opening of Tenders.
	47.3	The Tenderers’ representatives shall be duly authorized by the Tenderer. Tenderers or their authorized representatives

will be allowed to attend and witness the opening of Tenders, and will sign a register evidencing their attendance.

47.4 The authenticity of withdrawal or substitution of, or modifications to original Tender, if any made by a Tenderer in specified manner, shall be examined and verified by the Tender Opening Committee (TOC) based on documents submitted as stated under ITT Sub Clause 43.

47.5 Tenders will be opened in the following manner:

(a) First, envelopes marked "Withdrawal" shall be opened and read out and the envelope with the corresponding tender shall not be opened, but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at tender opening. Next, envelopes marked "Substitution" shall be opened and read out and exchanged with the corresponding tender being substituted, and the substituted tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at tender opening. Envelopes marked "Modification" shall be opened and read out with the corresponding tender. No tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at tender opening. Only envelopes that are opened and read out at tender opening shall be considered further.

(b) Secondly, the remaining Tenders will be sorted out and those marked "Substitution" or "Modification" will be linked with their corresponding "Original"(O) Tender;

(c) Thirdly, if so specified in this Tender Document, the envelopes marked "Alternative" (A) shall be opened and read aloud with the corresponding Tender and recorded.

47.6 Ensuring that only the correct (M), (S), (A), (O) envelopes are opened, details of each Tender will be dealt with as follows:

(a) the Chairperson of the Tender Opening Committee will read aloud each Tender and record in the Tender Opening Sheet (TOS):

(i) the name and address of the Tenderer;

(ii) state if it is a withdrawn, modified, substituted or original Tender;

(iii) the Tender price;

(iv) any discounts;

(v) any alternatives;

(vi) the presence or absence of any requisite Tender Security; and

(vii) Such other details as the Procuring Entity, at its discretion, may consider appropriate.

(b) Only discounts and alternatives read aloud at the Tender opening will be considered in evaluation.

(c) All pages of the original version of the Tender, except for un-amended printed literature, will be initialed by members of the Tender Opening Committee.

47.7 Upon completion of Tender opening, all members of the Tender Opening Committee and the Tenderers or Tenderer's duly authorized representatives attending the Tender opening shall sign by name, address, designation, the Tender Opening Sheet, copies of which shall be issued to the Head of the Procuring Entity or an officer authorized by him or her and also to the members of the Tender Opening Committee and any authorized Consultants and, to the Tenderers immediately.

47.8 The omission of a Tenderer's signature on the record shall not invalidate the contents and effect of the record under ITT Sub Clause 47.7.

47.9 No Tender will be rejected at the Tender opening stage except the LATE Tenders as stated in the ITT Clause 42.

48. Evaluation of Tenders

48.1 Tenders shall be examined and evaluated only on the basis of the criteria specified in the Tender Document.

48.2 The Procuring Entity's Tender Evaluation Committee (TEC) shall examine, evaluate and compare Tenders that are substantially responsive to the requirements of Tender Documents in order to identify the successful Tenderer.

49. Evaluation Process

49.1 Tender shall be evaluated on "Quality cost based selection". The total score is calculated by weighting the technical and financial scores and adding them as per the formula and instructions in the Data Sheet. The tenderer achieving the highest combined technical and financial score will be invited for negotiations if required.

If it is established that any key/alternative personal nominated in the PW3-3 was not available at the time of tender submission or was included in the tender without his/her confirmation, such tender shall be disqualified and rejected for further evaluation. All key/alternate personal shall be interviewed before contract signing. If any key/alternative personal at the time of contract signing is found unavailable,

then procuring entity may disqualify and reject the tender and award the contract to second highest scored tenderer.

The TEC will consider a Tender responsive that conforms in all respects to the requirements of the Tender Document without material deviation, reservation, or omission. The evaluation process should begin immediately after tender opening, following four broad steps:

(a) Preliminary examination

(b) Technical examination and responsiveness

(c) Financial evaluation and price comparison

(d) Post-qualification of the Tender.

50. Preliminary Examination	50.1	The Procuring Entity shall examine the tenders to confirm that all documentation requested in ITT Clause 23 has been provided, to determine the completeness of each document submitted.
	50.2	The Procuring Entity shall confirm that the following documents and information have been provided in the tender. If any of these documents or information is missing, the offer shall be rejected. (a) Tender Submission Letter; (b) Priced Bill of Quantities; (c) Written confirmation of authorization to commit the Tenderer; and (d) Tender Security.
51. Technical Responsiveness and Technical Evaluation	51.1	The Procuring Entity's determination of a tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence, without affecting the ability of the TEC to request nonmaterial nonconformities to be rectified under ITT 51.9.
	51.2	A substantially responsive tender is one that conforms in all respects to the requirements of the Tender Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that: (a) affects in any substantial way the scope, quality, or performance of the Works specified in the Contract; or (b) limits in any substantial way, or is inconsistent with the Tender Documents, the Procuring Entity's rights or the Tenderer's obligations under the Contract; or

(c) If rectified would unfairly affect the competitive position of other Tenderers presenting substantially responsive tenders.

51.3 If a tender is not substantially responsive to the Tender Document, it shall be rejected by the Procuring Entity and shall not subsequently be made responsive by the Tenderer by correction of the material deviation, reservation, or omission.

51.4 There shall be no requirement as to the minimum number of responsive tenders.

51.5 There shall be no rejection of tenders for the reason that they are above or below the official estimate.

51.6 The Procuring Entity will then examine the tender to confirm that all terms and conditions specified in the GCC and the PCC have been accepted by the Tenderer without any material deviation or reservation.

51.7 The Procuring Entity shall evaluate the technical aspects of the tender submitted in accordance with ITT Clauses 29, 30 and 31, to confirm that all requirements specified in Section 8: Technical Specification of the Tender Document have been met without any material deviation or reservation.

51.8 If, after the examination of the terms and conditions and the technical aspects of the tender, the Procuring Entity determines that the tender is not substantially responsive in accordance with ITT Sub-Clauses 51.6 and 51.7, it shall reject the tender.

51.9 Provided that a tender is substantially responsive, the Procuring Entity may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the tender related to documentation requirements. Such omission shall not be related to any aspect of the rates of the tender reflected in the Priced Bill of Quantities. Failure of the Tenderer to comply with the request may result in the rejection of its tender.

51.10 The TEC may regard a Tender as responsive even if it contains;

(a) minor or insignificant deviations which do not meaningfully alter or depart from the technical specifications, characteristics and commercial terms and, conditions or other mandatory requirements set out in the Tender Document; or

(b) Errors or oversights that if corrected, would not alter the key aspects of the Tender.

52. Clarification on Tender

52.1 The TEC may ask Tenderers for clarification of their Tenders, including information which is historical in nature or

breakdowns of unit rates or prices, in order to facilitate the examination and evaluation of Tenders. The request for clarification by the TEC and the response from the Tenderer shall be in writing, and Tender clarifications which may lead to a change in the substance of the Tender or in any of the key elements of the Tender pursuant to ITT Sub Clause 50.2, will neither be sought nor be permitted.

52.2 Changes in the Tender price shall also not be sought or permitted, except to confirm the correction of arithmetical errors discovered by the TEC in the evaluation of the Tenders, as stated under ITT Sub Clause 54.1.

53. Restrictions on Disclosure of Information

53.1 After the opening of tenders, information relating to the examination, clarification, and evaluation of tenders and recommendations for award shall not be disclosed to tenderers or other persons not officially concerned with the evaluation process until the award of the contract is announced.

53.2 Any effort by a Tenderer to influence a Procuring Entity in its decision concerning the evaluation of Tenders, Contract awards may result in the rejection of its Tender as well as further action in accordance with Section 64 (5) of the Public Procurement Act, 2006.

54. Correction of Arithmetical Errors

54.1 Provided that the Tender is substantially responsive, the TEC shall correct arithmetical errors on the following basis:

(a) if there is a discrepancy between the unit price and the line item total price that is obtained by multiplying the unit price and quantity, the unit price will prevail and the line item total price shall be corrected, unless in the opinion of the TEC there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted will govern and the unit price will be corrected; and

(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 unit price in words will 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.

54.2 If the Tenderer determined to be the lowest evaluated tenderer does not accept the correction of errors, its tender shall be disqualified and its tender security may be forfeited.

55. Financial Evaluation

55.1 The TEC will evaluate each Tender that has been determined, up to this stage of the evaluation, to be substantially responsive to the requirements set out in the Tender Document.

55.2 To evaluate a Tender, the TEC will consider the following:

(a) the Tender price, excluding Provisional Sums and the provision, if any, for contingencies in the priced Bill of Quantities, but including day work items, where priced competitively;

(b) adjustments for correction of arithmetical errors pursuant to ITT Sub Clause 54.1;

(c) adjustments in order to take into consideration the unconditional discounts or methodology for application of the discount offered pursuant to ITT Sub Clause 28.7;

(d) Adjustments for any other acceptable variations or deviations pursuant to ITT Sub Clause 51.10.

55.3 Variations, deviations, alternatives and other factors which are in excess of the requirements of the Tender Document or otherwise result in unsolicited benefits for the Procuring Entity will not be taken into account in Tender evaluation.

55.4 The estimated effect of any price adjustment provisions under GCC Clause 71, applied over the period of execution of the Contract, will not be taken into account in Tender evaluation.

55.5 If so indicated in the ITT Sub Clause 1.1 the Procuring Entity may award one or multiple lots to one Tenderer following the methodology specified in ITT Sub Clause 55.6.

55.6 To determine the lowest-evaluated lot or combination of lots, the TEC will take into account:

(a) the experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual lot;

(b) the lowest-evaluated Tender for each lot calculated in accordance with all the requirements of Evaluation Criteria;

(c) the price reduction on account of discount per lot or combination of lots and the methodology for application of the discount as offered by the Tenderer in its Tender; and

(d) the Contract-award sequence that provides the optimum economic combination on the basis of least overall cost of the total Contract package taking into account any limitations due to constraints in Works or execution capacity determined in accordance with the post-qualification criteria stated under ITT Clause 58.

55.7 If the tender, which results in the lowest evaluated Tender Price, is substantially below the updated official estimate or seriously unbalanced as a result of front loading in the opinion

of the Procuring Entity, the Procuring Entity may require the Tenderer to produce details price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Procuring Entity may require that the amount of the performance security set forth in ITT Clause 63b increased at the expenses of the Tenderer to a level sufficient to protect the Procuring Entity or Employer against financial loss in the event of default of the successful Tenderer under the Contract.

56. Price Comparison

56.1 The TEC will compare all substantially responsive Tenders to determine the lowest-evaluated Tender, in accordance with ITT Clause 55.

56.2 In the extremely unlikely event that there is a tie for the lowest evaluated price, the Tenderer with the superior past performance with the Procuring Entity shall be selected, whereby factors such as delivery period, quality of Works delivered, complaints history and performance indicators could be taken into consideration.

56.3 In the event that there is a tie for the lowest evaluated price and none of the Tenderers has the record of past performance with the Procuring Entity as stated under ITT Sub Clause 56.2, then the Tenderer shall be selected, subject to firm confirmation through the Post-qualification process, after consideration as to whether the Tenderer has demonstrated in its Tender superior past performance with the other Procuring Entities or a more efficient work program and work methodology.

56.4 The successful Tenderer as stated under ITT Sub Clauses 56.1, 56.2 and 56.3 shall not be selected through lottery under any circumstances.

57. Negotiations

57.1 No negotiations shall be held during the Tender evaluation or award with the lowest or any other Tenderer.

57.2 The Procuring Entity through the TEC may, on an exceptional basis and if approved by the Employers, however, negotiate with the lowest evaluated Tenderer with the objective to reduce the Contract price by reducing the scope of works or a reallocation of risks and responsibilities, only when it is found that the lowest evaluated Tender is significantly higher than the official estimate; the reasons for such higher price being duly analyzed.

57.3 If the Procuring Entity decides to negotiate for reducing the scope of the requirements under ITT Sub Clause 57.2, it will be required to guarantee that the lowest evaluated Tenderer remains the lowest evaluated Tenderer even after the scope

of work has been revised and shall further be ensured that the objective of the Procurement will not be seriously affected through this reduction.

57.4 In the event that the Procuring Entity decides because of a high Tender price to reduce the scope of the requirements to meet the available budget, the Tenderer is not obliged to accept the award and shall not be penalized in any way for rejecting the proposed award.

58. Post-qualification

58.1 The Procuring Entity shall determine to its satisfaction whether the Tenderer that is selected as having submitted the lowest evaluated and substantially responsive tender is qualified to perform the Contract satisfactorily.

58.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT Clause 31, clarifications in accordance with ITT Clause 52 and the qualification criteria indicated in ITT Clauses 12 to17. Factors not included therein shall not be used in the evaluation of the Tenderer's qualification.

58.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in rejection of the tenderer's tender, in which event the Procuring Entity shall proceed to the next lowest evaluated tender to make a similar determination of that Tenderer's capabilities to perform satisfactorily.

58.4 The TEC may verify information contained in the Tender by visiting the premises of the Tenderer as a part of the post qualification process, if practical and appropriate.

59. Procuring Entity's Right to Accept any or to Reject Any or All Tenders

59.1 The Procuring Entity reserves the right to accept any tender, to annul the tender proceedings, or to reject any or all tenders at any time prior to contract award, without thereby incurring any liability to Tenderers, or any obligations to inform the Tenderers of the grounds for the Procuring Entity's action.

60. Informing Reasons for Rejection

60.1 Notice of the rejection will be given promptly within seven (7) days of decision taken by the Procuring Entity to all Tenderers and, the Procuring Entity will, upon receipt of a written request, communicate to any Tenderer the reason(s) for its rejection but is not required to justify those reason(s).

G. Contact Award

61. Award Criteria

61.1 The Procuring Entity shall award the Contract to the Tenderer whose offer is responsive to all the requirements of the Tender Document and that has been determined to be the lowest evaluated Tender, provided further that the Tenderer

is determined to be Post-qualified in accordance with ITT Clause 58.

61.2 A Tenderer will not be required, as a condition for award, to undertake responsibilities not stipulated in the Tender documents, to change its price, or otherwise to modify its Tender.

62. Notification of Award

62.1 Prior to the expiry of the Tender Validity period and within seven (7) working days of receipt of the approval of the award by the Approving Authority, the Procuring Entity shall issue the Notification of Award (NOA) to the successful Tenderer.

62.2 The Notification of Award, attaching the contract as per the sample (Form PW3-4) to be signed, shall state :

(a) the acceptance of the Tender by the Procuring Entity;

(b) the price at which the contract is awarded;

(c) the amount of the Performance Security and its format;

(d) the date and time within which the Performance Security shall be submitted; and

(e) The date and time within which the Contract shall be signed.

62.2 Until a formal contract is signed, the Notification of Award will constitute a Contract, which shall become binding upon the furnishing of a Performance Security and the signing of the Contract by both parties.

63. Performance Security

63.1 The Performance Security shall be provided by the successful Tenderer in the amount as specified in the TDS and denominated in the currencies in which the Contract Price is payable.

63.2 The Procuring Entity may increase the amount of the Performance Security above the amounts as stated under ITT Sub Clause 63.1 but not exceeding twenty five (25) percent of the Contract price, if it is found that the Tender is substantially below the updated official estimated or seriously unbalanced as a result of front loading as stated under ITT Sub Clause 55.7.

63.3 The proceeds of the Performance Security shall be payable to the Procuring Entity unconditionally upon first written demand as compensation for any loss resulting from the Contractor’s failure to complete its obligations under the Contract.

64. Form and Time Limit for Furnishing of Performance Security	64.1	The Performance Security, as stated under ITT Clause 63, may be in the form of a Bank Draft, Pay Order or an irrevocable Bank Guarantee in the format (Form PW3-7), issued by any scheduled Bank of Bangladesh acceptable to the Procuring Entity.
	64.2	Within seven (7) days from the date of acceptance of the Notification of Award (NOA) but not later than the date specified therein, the successful Tenderer shall furnish the Performance Security for the due performance of the Contract in the amount as stated under ITT Sub Clauses 63.1 or 63.2.
	64.3	The Performance Security shall be provided by the successful Tenderer within 7 (seven) days of issuance of Notification of award as specified in TDS and Tenderer shall not receive any payment until and unless the Performance Security have been submitted.
65. Validity of Performance Security	65.1	The Performance Security shall be required to be valid until a date twenty eight (28) days beyond the Intended Completion Date as specified in Tender Document.
66. Authenticity of Performance Security	66.1	The Procuring Entity may verify the authenticity of the Performance Security submitted by the successful Tenderer by sending a written request to the branch of the bank issuing the Pay Order, Bank Draft or irrevocable Bank Guarantee in specified format.
67. Contract Signing	67.1	At the same time as the Procuring Entity issues the Notification of Award (NOA), the Procuring Entity will send the draft Contract Agreement and all documents forming the Contract to the successful Tenderer.
	67.2	Within twenty-one (21) days of receipt of the Agreement, but not later than twenty–eight (28) days of issuance of the NOA, the successful Tenderer shall sign, date, and return it to the Procuring Entity.
	67.3	Failure of the successful Tenderer to submit the Performance Security, pursuant to ITT Sub-Clause 63.1, or sign the Contract, pursuant to ITT Sub-Clause 68.2, shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the next lowest evaluated Tenderer, whose offer is substantially responsive and is determined by the Procuring Entity to be qualified to perform the Contract satisfactorily.
68. Debriefing of Tenderers	68.1	Debriefing of Tenderers by Procuring Entity shall outline the relative status and weakness only of his or her Tender requesting to be informed of the grounds for not accepting the Tender submitted by him or her, without disclosing information about any other Tenderer.

	68.2	In the case of debriefing, confidentiality of the evaluation process shall be maintained.
69. Right to Complain	69.1	Any Tenderer has the right to complain in accordance with Section 29 of the Public Procurement Act 2006 and Part 12 of Chapter Three of the Public Procurement Rules, 2008.

Section 3: Tender Data Sheet

ITT Clause	Amendments of, and Supplements to, Clauses in the Instructions to Tenderers

A. General

ITT 1.1 The Procuring Entity is:
Project Manager, SUNRISE Project, WaterAid Bangladesh

The Name of the Tender is: Construction of Public Toilet at Chowhatta Point, Sylhet

ITT 3.1 The source of fund will be WaterAid Bangladesh.

ITT 3.2 The name of the Employer is WaterAid Bangladesh.

ITT 5.1 Relevant experienced Tenderers of Bangladesh can participate.

B. Tender Document

ITT 8.2 The following are authorized agents of the Procuring Entity for the purpose of issuing the Tender Document:

a) Project Manager, SUNRISE project
WaterAid Bangladesh
House No: 97/B, Road No: 25, Block: A
Banani, Dhaka-1213
Tel: +88028815757, 8818521
Fax: +88029882577
Email: ABMMobasherHossain@wateraid.org

ITT 9.1 For clarification of Tender Document purposes only, the Procuring Entity's address is:

a) Project Manager, SUNRISE project
WaterAid Bangladesh
House No: 97/B, Road No: 25, Block: A
Banani, Dhaka-1213
Tel: +88028815757, 8818521
Fax: +88029882577
Email: ABMMobasherHossain@wateraid.org

ITT 10.1 N/A

C. General Qualification Criteria for sort listing

ITT 14.1(a) Minimum 3 years of working experience in Civil Engineering construction works with at least one construction of budget of minimum Tk. 25 lacs completed over the period of last 3 years.
The minimum specific experience as a Contractor is at least 1(One) contract of similar complexity and methods/construction technology successfully completed within the last 3 (Three) years.

ITT 15.1(a) The required average construction turnover (AACT) is Taka 1 million of last three years.

ITT 15.1(b) The minimum amount of liquid assets or working capital or credit facilities of the Tenderer shall be Tk. 1 million.

ITT 16.1(a) Tender shall be evaluated on "Quality cost based selection". The total score is calculated by weighting the technical and financial scores and adding them as per the formula and instructions. The tenderer achieving the highest combined technical and financial score will be invited for negotiations if required.

The lowest evaluated Financial Proposal (Fm) is given the maximum financial score (Sf) of 100.

The formula for determining the financial scores (Sf) of all other Proposals is calculated as following:

Sf = 100 x Fm/ F, in which "Sf" is the financial score, "Fm" is the lowest price, and "F" the price of the proposal under consideration.

The weights given to the Technical (T) and Financial (P) Proposals are:
T = 60% [Sixty Percent], and
P = 40% [Forty Percent]

Proposals are ranked according to their combined technical (St) and financial (Sf) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; T + P = 1) as following: S = St x T% + Sf x P%.

Criteria, sub-criteria, and point system for the evaluation of the Full Technical Proposals:

SN	Criteria	Points
(i)	Specific experience of the Tenderer relevant to the project	10.00
(ii)	Adequacy and quality of the proposed methodology and work plan	65.00
(iii)	Key personnel qualifications and competence for the project	25.00
Total Points		**100.00**

(i) Specific experience of the Tenderer relevant to the project, POINT: 10 (Ten)

SN	Parameter	Points	Points
1.	Contractor's Experience (Trade license, VAT registration, TIN etc.) (i) Yearly average turnover (ii) Yearly average turnover in WASH related works	 4.00 6.00	10.00
	Total Points		**10.00**

(ii) Adequacy, proposed methodology and work plan, POINT:65 (Sixty-Five) See: FORM PW3-8

SN	Parameter	Points	Points
1.	Work methodology (i) General construction execution, quality control description, documentation and reporting (ii) Site safety, security, health and environment	 25.00 10.00	35.00
2.	Detail work plan which include but not limited to: Project dates for resource mobilization, construction start, casting schedules, utility connections, site visits, bill submission schedule, and approval of construction materials, pre handover meeting and hand over of the sites.	 30.00	30.00
	Total Points		**65.00**

(iii) Key Personal qualifications and competence for the project: , POINT: 25 (Twenty Five) See FORM PW3-3

Positions	Points
1. Construction Project Coordinator (i) General qualification: academic, professional etc. (ii) Years of experience (iii) Adequacy of the assignment	5.00
2. Construction Engineer (i) General qualification: academic, professional etc. (ii) Years of experience (iii) Adequacy of the assignment	20.00
Total Points	**25.00**

D. Tender Preparation

ITT 26.9 The prices quoted by the Tenderer shall be fixed for the duration of the Contract.

ITT 27.1 The currency of the Tender shall be : Taka

ITT 30.1 The required Technical Proposal shall include the following additional information:

- Work Plan

ITT 32.1 The Tender Validity period shall be 120 days.

ITT 34.1 The amount of the Tender Security shall be Tk. 1,00,000.00/- in favor of SUNRISE Project, WaterAid Bangladesh.

E. Tender Submission

ITT 40.2(e) The inner and outer envelopes shall bear the following additional identification marks:

(a) Attention: Project Manager, SUNRISE Project.
(b) Name of the tender is Construction of Public Toilet at Chowhatta Point, Sylhet
(c) Do Not Open Before Time: 3:00 pm, Date: 17/12/2017

ITT 41.1 For Tender submission purposes only, the Procuring Entity's address is:

a) WaterAid Bangladesh
House No: 97/B, Road No: 25, Block: A
Banani, Dhaka-1213

The deadline for the submission of Tenders is:

Time: 2:00 pm and Date: 17/12/2017

F. Tender Opening and Evaluation

ITT 47.1 The amount of Performance Security shall be 5 (five) percent of the Contract Price.

All the financials will be directly operated from the Employer (WaterAid). Details of pay order payments, bank guarantees and other financial liabilities will be discussed during contract negotiation with the consents from WaterAid.

Section 4: General Conditions of the Contract

A. General

1. Definitions

1.1 In the Conditions of Contract, which include Particular Conditions and these General Conditions, the following words and expressions shall have the meaning hereby assigned to them. Boldface type is used to identify the defined terms:

(a) **Act means** The Public Procurement Act, 2006.

(b) **WAB** means **WaterAid Bangladesh.**

(c) **Bill of Quantities (BOQ)** means the priced and completed Bill of Quantities forming part of the Contract defined in GCC Clause 54.

(d) **Approving Authority** means the authority that gives decision on specific issues as per delegation of administrative and/or financial powers.

(e) **Completion Certificate** means the Certificate issued by the Project Manager as evidence that the Contractor has executed the Works and Physical services in all respects as per design, drawing, specifications and Conditions of Contract.

(f) **Completion Date** is the actual date of completion of the Works and Physical services certified by the Project Manager, in accordance with GCC Clause 67

(g) **Contract** means the Agreement entered into between the Procuring Entity and the Contractor, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein to execute, complete, and maintain the Works.

(h) **Contract Documents** means the documents listed in GCC Clause 6, including any amendments thereto.

(i) **Contractor** means the Person under contract with the Procuring Entity for the execution of Works under the Rules and the Act as stated in the **PCC**.

(j) **Contract Price** is the price stated in the Notification of Award and thereafter as adjusted in accordance with the provisions of the Contract.

(k) **Contractor's Tender** is the completed Tender Document including the priced Bill of Quantities and the Schedules submitted by the Contractor to the Procuring Entity.

(l) **Day** means calendar day unless otherwise specified as working days.

(m) **Day works** means work carried out following the instructions of the Procuring Entity or the authorized Project Manager and is paid for on

the basis of time spent by the Contractor's workers and equipment at the rates specified in the Schedules, in addition to payments for associated Materials and Plant.

(n) **Defect** is any part of the Works not completed in accordance with the Contract.

(o) **Defects Correction Certificate** is the certificate issued by the Project Manager upon correction of defects by the Contractor.

(p) **Drawings** include calculations and other information provided in Section 9 or as approved by the Project Manager for the execution and completion of the Contract.

(q) **Employer** means WaterAid and its authorized representatives responsible for the payments payable to the contractor.

(r) **Defects Liability Period** is the period specified in the PCC and calculated from the Completion Date. **Drawings** include calculations and other information provided in Section 9 or as approved by the Project Manager for the execution and completion of the Contract.

(s) **Goods** mean the Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

(u) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

(v) **GCC** means the General Conditions of Contract.

(w) **Intended Completion Date** is the date calculated from the Commencement Date as specified in the **PCC**, on which it is intended that the Contractor shall complete the Works and Physical services as specified in the Contract and may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

(x) **Materials** means things of all kinds other than Plant intended to form or forming part of the Works, including the supply-only materials, if any, to be supplied by the Contractor under the Contract.

(y) **Month** means calendar month.

(z) **Initial Contract Price** is the Contract Price stated in the Procuring Entity's Notification of Award.

(aa) **PCC** means the Particular Conditions of Contract.

(bb) **Plant** means the apparatus, machinery and other equipment intended to form or forming part of the Works, including vehicles purchased for the Procuring Entity and relating to the construction of the Works and Physical services.

(cc) **Procuring Entity** means a Procuring Entity (WaterAid Bangladesh) having administrative and financial powers to undertake

procurement of Works and Physical services using funds provided by WaterAid and is as named in the **PCC** who employs the Contractor to carry out the Works.

(dd) **Project Manager** is the person named in the **PCC** or any other competent person appointed by the Procuring Entity and notified to the Contractor who is responsible for supervising the execution and completion of the Works and Physical services and administering the Contract.

(ee) **Provisional Sums means** amounts of money specified by the Procuring Entity in the Bill of Quantities which shall be used, at its discretion, for payments to Nominated Subcontractor(s) and for meeting other essential expenditures under the Contract pursuant to GCC Sub Clause 64.

(ff) **Site** means the places where the Works are to be executed including storage and working areas and to which Plant and Materials are to be delivered, and any other places as may be specified in the **PCC** as forming part of the Site.

(gg) **Site Investigation Reports** are those that were included in the Tender Document and are factual and interpretative reports about the surface and subsurface conditions at the Site.

(hh) **Specification** means the Specification of the Works included in the Contract and any modifications or additions to the specifications made or approved by the Project Manager in accordance with the Contract.

(ii) **Start Date** is the date defined in the **PCC** and it is the last date when the Contractor shall commence execution of the Works under the Contract.

(jj) **Temporary Works** means all temporary works of every kind other than Contractor's Equipment required on the Site for the execution and completion of the Works and remedying of any defects.

(kk) A **Variation** is an instruction given by the Project Manager that varies the Works.

(ll) **Works** means all works associated with the construction, reconstruction, site preparation, demolition, repair, maintenance or renovation of railways, roads, highways, or a building, an infrastructure or structure or an installation or any construction work relating to excavation, installation of equipment and materials, decoration, as well as physical services ancillary to works as detailed in the **PCC**, if the value of those services does not exceed that of the Works themselves.

(mm) **Writing** means communication written by hand or machine duly signed and includes properly authenticated messages by facsimile or electronic mail.

2. Interpretation

2.1 In interpreting the GCC, singular also means plural, male also means female or neuter, and the other way around. Headings in the GCC shall not be deemed part thereof or be taken into consideration in the interpretation of the Contract. Words have their normal meaning under the language of the Contract unless specifically defined.

2.2 Entire Agreement

The Contract constitutes the entire agreement between the Procuring Entity and the Contractor and supersedes all communications, negotiations and agreements (whether written or verbal) of parties with respect thereto made prior to the date of Contract Agreement; except those stated under GCC Sub Clause 6.1(j).

2.3 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

2.4 Sectional completion

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).

3. Communications and Notices

3.1 Communications between Parties such as notice, request or consent required or permitted to be given or made by one party to the other pursuant to the Contract shall be in writing to the addresses specified in the **PCC**.

3.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

3.3 A Party may change its address for notice hereunder by giving the other Party notice of such change to the address.

4.Governing Law

4.1 The Contract shall be governed by and interpreted in accordance with the laws of the People's Republic of Bangladesh.

5. Governing Language

5.1 The Contract shall be written in English. All correspondences and documents relating to the Contract may be written in English. Supporting documents and printed literature that are part of the Contract may be in another language, provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, such translation shall govern.

5.2 The Contractor shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

6. Documents Forming the Contract and Priority of Documents

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

(a) the completed Tender and the appendix to the Tender;

(b) the General Conditions of Contract;

(c) the Particular Conditions of Contract;

(d) the signed Contract Agreement (**Form PW3-5**);

(e) the Notification of Award **(PW3-6)**

(f) the Technical Specifications;

(g) the Drawings;

(h) the priced Bill of Quantities and the Schedules; and

(i) Any other document listed in the **PCC** forming part of the Contract.

7.Scope of Works

7.1 The Works to be executed, completed and maintained shall be as specified in the Bill of Quantities, the Technical Specifications and Drawings.

7.2 Unless otherwise stipulated in the Contract, the Works shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for completion of the Works as if such items were expressly mentioned in the Contract.

8. Assignment

8.1 Neither the Contractor nor the Procuring Entity shall assign, in whole or in part, its obligations under the Contract

9. Eligibility

3.5 The Contractor has the nationality of Bangladesh as specified in the PCC.

10. Gratuities / Agency fees

10.1 No fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the tender or in the Contract, have been given or received in connection with the procurement process or in the Contract execution.

11. Confidential Details

3.6 The Contractor's and the Procuring Entity's personnel shall disclose all such confidential and other information as may be reasonably required in order to verify the Contractor's compliance with the Contract and allow its proper implementation.

3.7 Each of them shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any

publicly available information, or information otherwise required to establish his qualifications to compete for other projects.

12. Possession of the Site

3.8 The Employer or the Procuring Entity shall give possession of the Site or part(s) of the Site, to the Contractor on the date(s) stated in the PCC. If possession of a part of the Site is not given by the date stated in the PCC, the Procuring Entity or Employer will be deemed to have delayed the start of the relevant activities.

13. Access to the Site

13.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager 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.

14. The Employer's Responsibilities

14.1 The Employer shall pay the Contractor, in consideration of the satisfactory progress of execution and completion of the Works and Physical services, 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 Agreement.

14.2 The Employer shall not pay the Contractor until and unless the Performance Security and Insurance have been paid duly.

14.3 The Employer shall make its best effort to guide and assist the Contractor in obtaining, if required, any permit, license, and approvals from local public authorities for the purpose of execution of the Works and Physical services under the Contract.

15. Contractor's Responsibilities

15.1 The Contractor shall execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract Agreement.

15.2 The Contractor shall perform the Services using the degree of skill care and diligence to be expected from a Contractor experienced in the provision of services of similar scope size and complexity.

15.3 The Contractor shall use reasonable endeavors to complete the Works within the time or program detailed in the Tender document but shall not be responsible for any delay beyond the reasonable control of the Contractor.
15.4 The Contractor shall be responsible for all actions of its staff and shall continue to be responsible in all ways for its own obligations as employer of its employees.

15.5 The Contractor shall at all times indemnify the Procuring Entity or Employer against all loss and damage incurred by the Procuring Entity or Employer and against all liabilities to other persons (including the Procuring Entity or Employer and the employees and agents of the Procuring Entity or Employer and Contractor) for loss or damage which may arise out of or in consequence of the acts or omissions of the Contractor in the performance of his/her obligations under the contract agreement.

15.6 Warrant that the materials specified in the technical specification of the Tender Document, such as: Fittings and Fixtures, floor tiles etc. shall be approved by the Procuring Entity or Employer or Site Engineer representing the Procuring Entity or Employer before purchase.

16. Taxes and Duties

16.1 The Contractor shall be entirely responsible for all taxes, duties, fees, and other such levies imposed inside and outside Bangladesh.

17. Contractor's Personnel

17.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the PCC, to carry out the functions stated in the Schedule or other personnel approved by the Project Manager.

17.2 The Project Manager will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or higher than those of the personnel named in the Schedule.

17.3 If the Project Manager asks the Contractor to remove a particular person who is a member of the Contractor's staff or work force from the Site, he or she shall state the reasons, and the Contractor shall ensure that the person leaves the Site within three (3) days and has no further connection with the work in the Contract.

18. Project Manager's Decisions

18.1 Except where otherwise specifically stated in the PCC, the Project Manager will decide Contractual matters between the Procuring Entity and the Contractor in its role as representative of the Procuring Entity.

18.2 The Project Manager or any personnel authorized by the Project Manager will decide the quality of the materials bought to carry out the work before purchase as mentioned in the PCC.

19. Delegation

19.1 The Project Manager may delegate any of his duties and responsibilities to his representative, after notifying the Contractor, and may cancel any delegation, without retroactivity, after notifying the Contractor.

19.2 Any communications to the Contractor in accordance with such delegation shall have the same effect as if it was given by the Project Manager.

20. Instructions

20.1 The Contractor shall carry out all instructions of the Project Manager that comply with the applicable law.

21. Queries about the Contract

21.1 The Project Manager, on behalf of the Procuring Entity, will clarify queries on the Conditions of Contract.

22. Safety, Security and Protection of the Environment

22.1 The Contractor shall throughout the execution and completion of the Works and the remedying of any defects therein:

(a) take all reasonable steps to safeguard the health and safety of all workers working on the Site and other persons entitled to be on it, and to keep the Site in an orderly state;

(b) provide and maintain at the Contractor's own cost all lights, guards, fencing, warning signs and watching for the protection of the Works or for the safety on-site; and

(c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of the Contractors methods of operation.

23. Welfare of Laborers

23.1 The Contractor shall comply with all the relevant labor Laws applicable to the Contractor's personnel relating to their employment, health, safety, welfare, immigration and shall allow them all their legal rights.

23.2 The Contractor, in particular, shall provide proper accommodation to his or her laborers and arrange proper water supply, conservancy and sanitation arrangements at the site for all necessary hygienic requirements and for the prevention of epidemics in accordance with relevant regulations, rules and orders of the government.

23.3 The Contractor, further in particular, shall pay reasonable wages to his or her laborers, and pay them in time.

24. Child Labor

24.1 The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, 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 in compliance with the applicable labor laws and other relevant treaties ratified by the government.

25. Discoveries

25.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Procuring Entity. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

26. Procuring Entity's and Contractor's Risks

26.1 The Procuring Entity carries the risks that the Contract states are Procuring Entity's risks and the Contractor carries the risks that the Contract states are Contractor's risks.

27. Procuring Entity's Risks

27.1 From the Start Date until the Defects Correction Certificate has been issued, the following are Procuring Entity'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). negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity 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 Procuring Entity or in the Procuring Entity's design.

27.2 From the Completion Date until the Defects Correction Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is Procuring Entity'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 Procuring Entity's risk; or

(c) The activities of the Contractor on the Site after the Completion Date.

28. Contractor's Risks

28.1 From the Start Date until the Defects Correction 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 Procuring Entity's risks are Contractor's risks.

29. Copyright

29.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Procuring Entity by the Contractor herein shall remain vested in the Contractor, or, if they are furnished to the Procuring Entity directly or through the Contractor by any third party, including Suppliers of materials, the copyright in such materials shall remain vested in such third party.

29.2 The Contractor shall not, except for the purposes of performing the obligations under the Contract, without the written permission of the Procuring Entity disclose or make use of any specification, plan, design and drawing, pattern, sample or information furnished by or on behalf of the Procuring Entity.

30. Limitation of Liability

30.1 Except in cases of criminal negligence or willful misconduct:

(a) the Contractor shall not be liable to the Procuring Entity, whether in Contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Procuring Entity; and

(b) the aggregate liability of the Contractor to the Procuring Entity, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective Works, or to any obligation of the Contractor to indemnify the Procuring Entity with respect to patent infringement.

31. Insurance

31.1 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 specified

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.

31.2 The Contractor shall deliver policies and certificates of insurance to the Project Manager, for the Project Manager's approval, before the Start Date. All such insurances shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

31.3 If the Contractor does not provide any of the policies and certificates required, the Procuring Entity may affect the insurance which the Contractor should have provided and recover the premiums the Procuring Entity 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.

31.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.

32. Management and Progress Meetings

32.1 Either the Project Manager or the Contractor may require the other to attend a management and progress meeting. The business of such meeting shall be to review the progress and plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

32.2 The Project Manager shall record the business of the meetings and provide copies of the record to those attending the meeting and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management and progress meeting or after the meeting, and stated in writing to all concerned.

33. Corrupt, Fraudulent, Collusive, Coercive, or Obstructive Practices

33.1 It is necessary that the Procuring Entity, as well as the Contractor shall observe the highest standard of ethics during the implementation of procurement proceedings and the execution of the Contract under public fund.

33.2 For the purposes of GCC Sub Clause 33.4, the terms set forth below as follows:

(a) "corrupt practice" means offering, giving or promising to give, receiving, or soliciting either directly or indirectly, to any officer or employee of a Procuring Entity or other public or private authority or individual, a gratuity in any form; employment or any other thing or

service of value as an inducement with respect to an act or decision or method followed by a Procuring Entity in connection with a Procurement proceeding or Contract execution;

(b) “fraudulent practice” means any act or the misrepresentation or omission of facts in order to influence a decision to be taken in a Procurement proceeding or Contract execution or that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

(c) “collusive practice” means a scheme or arrangement between two (2) or more Persons, with or without the knowledge of the Procuring Entity, that is designed to arbitrarily reduce the number of Tenders submitted or fix Tender prices at artificial, non-competitive levels, thereby denying a Procuring Entity the benefits of competitive price arising from genuine and open competition; or which is designed to achieve an improper purpose, including influencing improperly the actions of another party;

(d) “coercive practice” means impairing, or harming or threatening to impair or harm, directly or indirectly, Persons or their property to influence improperly the actions of a party, or to influence a decision to be taken in the Procurement proceeding or the execution of a contract, and this will include creating obstructions in the normal submission process used for Tenders.

(e) “obstructive practice” means deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede an 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.

33.3 Should any corrupt, fraudulent, collusive, coercive or obstructive practice of any kind, in competing for or in executing the Contract, come to the knowledge of the Procuring Entity, it will, in the first place, allow the Contractor to provide an explanation and only when a satisfactory explanation is not received, shall terminate the Contractor’s employment under the Contract and expel the contractor from the site, and the provisions of Clause 79 shall apply as if such expulsion had been made under sub-clause 79.1 (Termination for Default).

33.4 If corrupt, fraudulent, collusive, coercive or obstructive practices of any kind determined against the Contractor (including its suppliers, sub-contractors, agents, personnel, consultants, and service providers) alleged to have carried out such practices:

(a) the Procuring Entity will exclude the Contractor from further participation in the particular Procurement proceeding;

(b) The Procuring Entity will declare, at its discretion, the Contractor to be ineligible to participate in further Procurement proceedings for the same work, either indefinitely or for a specific period of time.

33.5 The Contractor shall be aware of the provisions on corruption, fraudulence, collusion, coercion and obstruction of the Procurement Guidelines of Public Procurement Act 2006 and Public Procurement Rules 2008.

33.6 The Contractor (including its suppliers, sub-contractors, agents, personnel, consultants, and service providers) shall permit the Employer to inspect the Contractor's accounts and records and other documents relating to the submission of tender and contract performance, and to have them audited by auditors appointed by the Employer if so required.

B. Time Control

34. Commencement of Works

34.1 Except otherwise specified in the PCC , the Commencement Date shall be the date at which the following precedent conditions have all been fulfilled and the Project Manager's instruction recording the agreement of both Parties on such fulfilment and instructing to commence the Works is received by the Contractor:

(a) signing of the Contract Agreement by both parties upon approval of the by relevant authorities;

(b) possession of the Site given to the Contractor as required for the commencement of the Works; and

If the Project Manager's instruction is not received by the Contractor within one hundred eighty (180) days from the date of signing of the Contract Agreement, the Contractor shall be entitled to terminate the Contract under GCC Sub Clause 77.1.

34.2 The Contractor shall commence the execution of the Works as soon as is reasonably practicable by the Start Date as specified in the GCC Sub Clause 1.1(ii) after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.

35. Completion of Works

35.1 The Contractor shall carry out the Works in accordance with the Program of Works submitted by the Contractor and as updated with the approval of the Project Manager as stated under GCC Clause 36 to complete them in all respects by the Intended Completion Date.

36. Program of Works

36.1 Within the time stated in the PCC, the Contractor shall submit to the Project Manager for approval a Program of Works showing the general methods, arrangements, order, and timing for all the activities in the Works. The program may be in the form of an Implementation Schedule prepared in any software or other form acceptable to the Project Manager.

36.2 The Contractor shall submit to the Project Manager for approval of an updated Program at intervals no longer than the period stated in

the PCC. 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. A measurement book needs to be followed and updated by the Contractor at all times throughout the construction works and it will be supervised by the Project Manager or their authorized personnel in a period of time specified in the PCC.

36.3 If the Contractor does not submit an updated Program of Works at the intervals as stated under GCC Sub Clause 36.2, the Project Manager may withhold an amount as stated in the PCC from the next payment certificate and continue to withhold this amount until the next due payment after the date on which the overdue Program of Works has been submitted.

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

37. Pro Data Progress

37.1 The Contractor shall maintain Pro Data progress of the Works. Progress to be achieved shall be pursuant to GCC Clause 36 and shall be determined in terms of the value of the works done.

38. Early Warning

38.1 If at any time during performance of the Contract, the Contractor should encounter events, circumstances, conditions that may adversely affect the quality of the work, increase the Initial Contract Price or delay the execution of the Works, the Contractor shall promptly notify the Project Manager in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Contractor's notice, the Project Manager shall evaluate the situation, and 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.

38.2 The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Initial Contract price and Completion Date. The Contractor shall provide the estimate and the Project Manager shall further proceed as soon as reasonably possible.

39. Extension of Intended Completion Date

39.1 The Contractor shall be entitled to an extension of the Intended Completion Date, if and to the extent that completion of the Works or any part thereof is or will be delayed by Compensation Events or a Variation or Extra Work Order.

39.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within twenty-one (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 extension of Intended Completion Date.

39.3 Except in case of Force Majeure, as provided under GCC Clause 72, a delay by the Contractor in the performance of its Completion obligations shall render the Contractor liable to the imposition of Liquidated Damages pursuant to GCC Clause 61, unless an extension of Intended Completion Date is agreed upon, pursuant to GCC Clause 39.

39.4 If the Contractor fails to complete the Works by the Intended Completion Date, as extended by the Project Manager as the case may be, the Contractor shall be liable to pay liquidated damages to the Employer.

40. Delays Caused by Authorities

40.1 If the following conditions apply, namely:

(a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities,

(b) these public authorities delay or disrupt the Contractor's work, and

(c) the delay or disruption was unforeseeable;

Then this delay or disruption will be considered as a cause of delay under GCC Sub Clause 39.1.
40.2 The Project Manager shall notify the Contractor accordingly keeping the Procuring Entity posted.

41. Acceleration

41.1 When the Procuring Entity wants the Contractor to finish the Works before the Intended Completion Date, the Project Manager will obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date will be advanced accordingly and confirmed by both the Procuring Entity and the Contractor.

41.2 If the Procuring Entity accepts the Contractor's priced proposals for acceleration, they will be incorporated in the Contract Price and treated as a Variation under GCC Clause 55.

42. Delays Ordered by the Project Manager

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

43. Suspension of Work

43.1 The Project Manager may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.

44. Consequences of Suspension

44.1 If the Contractor suffers delay and/or incurs Cost from complying with the Project Manager's instructions under GCC Clause 43 and/or from resuming the work, the Contractor shall give notice to the Project Manager and shall be entitled subject to GCC Clause 80 to:

(a) an extension of time for any such delay, if Completion is or will be delayed and

(b) Payment of any such cost, which shall be included in the Contract Price.

44.2 After receiving this notice, the Project Manager shall proceed to agree or determine these matters.

44.3 The Contractor shall not be entitled to any extension of time for, or to any payment of the cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with GCC Clause 43.

C. Quality Control

45. Execution of Works

45.1 The Contractor shall construct, install and carry out the Works and Physical services in accordance with the Specifications and Drawings as scheduled in GCC Clause 6.

46. Examination of Works before covering up

46.1 All works under the Contract shall at all times be open to examination, inspection, measurements, testing and supervision of the Project Manager, and the Contractor shall ensure presence of its representatives at such actions provided proper advance notice is given by the Project Manager.

46.2 No part of the Works shall be covered up or put out of sight without the approval of the Project Manager. The Contractor shall give notice in writing to the Project Manager whenever any such part of the Works is ready for examination and the Project Manager shall attend to such examination without unreasonable delay.

47. Identifying Defects

47.1 The Project Manager shall check the works executed by the Contractor and notify the Contractor of any Defects found. Such checking shall not relieve the Contractor from his or her obligations. The Project Manager may also instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

48. Testing

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

49. Rejection of Works

49.1 If, as a result of an examination, inspection, measurement or testing, of Works it is found to be defective or otherwise not in accordance with the Contract, the Project Manager may reject the Works by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected Works subsequently complies with the Contract.

50. Remedial Work

50.1 Notwithstanding any test or certification, the Project Manager may instruct the Contractor to:

(a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,

(b) remove and re-execute any other work which is not in accordance with the Contract, and

(c) Execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.

50.2 The Contractor shall comply with the instruction issued under GCC Sub Clause 50.1 within a reasonable time, which shall be specified in the instruction, or immediately if urgency is specified under GCC Sub Clause 50.1(c).

50.3 If the Contractor fails to comply with the instruction issued under GCC Sub Clause 50.2, the Procuring Entity shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall be liable to pay all such costs arising from this failure.

51. Correction of Defects

51.1 The Project Manager shall give notice to the Contractor, with a copy to the Procuring Entity and others concerned, of any Defects before the end of the Defects Liability Period, which begins at Completion Date, and is defined in the PCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

51.2 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.

52. Uncorrected Defects

52.1 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 by it, and the Contractor shall remain liable to pay the expenditures incurred on account of correction of such Defect.

D. Cost Control

53. Contract Price

53.1 The Contract Price shall be as specified in the Contract Agreement subject to any additions and adjustments thereto, or deductions therefrom, as may be made pursuant to Contract.

54. Bill of Quantities

54.1 The Bill of Quantities shall contain priced items for the construction, installation, testing, and commissioning work to be done by the Contractor.

54.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

54.3 If the quantity of an item specified in the Bill of Quantities has been changed, the contractor will be notified and will be paid at the rate in the Bill of Quantities.

55. Variations

55.1 All Variations and Extra Work Orders under the Contract shall be included in the updated Program of Works produced by the Contractor.

56. Costing of Variations or Extra Orders

56.1 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 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.

56.2 If the Contractor's quotation is found to be unreasonable, the Project Manager may order the Variation and make a change to the Contract price.

56.3 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning under GCC Sub Clause 38.1.

57. Cash Flow Forecasts

57.1 When the Program of Works is updated under GCC Sub Clause 36.2, the Contractor shall provide the Project Manager with an updated cash flow forecast.

58. Payment Certificates

58.1 The basis for payment certificates shall be Bill of Quantities used to determine the Contract price.

58.2 The Contractor shall submit to the Project Manager 4 (four) statements as 3 (three) running bills and 1 (one) final bill of the estimated value of the works executed less than the cumulative amount certified previously as per completion of following phases of construction works.

Phase-1. Completion of Substructure

Phase-2. Completion of Super structure

Phase-3. Completion of finishing work

Phase-4. Final bill after project handover

58.3 The Project Manager shall check the Contractor's statements (submitted after completion of each phase) and certify the amount to be paid to the Contractor.

58.4 The value of work executed shall be determined by the Project Manager.

58.5 The value of work executed shall include the valuation of Variations or Extra Work Orders, Certified Day works and Compensation Events.

58.6 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.

59. Payments to the Contractor

59.1 Payments shall be adjusted for deductions for retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within twenty eight (28) days of the date of each certificate after due adjustments for deductions for retention and any other additions or deductions which may have become due under the Contract or otherwise, including those under GCC Clause 80.

59.2 Items of works quantified in the Bill of Quantities for which no rates or prices have been quoted shall be deemed covered by the amounts at rates and prices of other items in the Contract.

59.3 If an item is not specified in the Bill of Quantities, but needs to be added later due to unavoidable circumstances, the contractor will be paid based on market price assessment.

59.4 Payments due to the Contractor in each certificate shall be made into the Bank Account in any scheduled Bank of Bangladesh of the title of the Contract specified in the PCC, nominated by the Contractor in the currency specified in the Contract.

60. Retention Money

60.1 The Procuring Entity may retain from each progressive payment due to the Contractor at the percentage specified in the PCC until completion of the whole of the Works under the Contract.

60.2 The total amount retained as Retention money (10% of total final bill amount) under GCC Sub Clause 60.1 shall be repaid to the Contractor after the Defects Liability Period (6 months) has passed and the Project Manager has certified in the form of Defects Corrections Certificate.

60.3 On completion of the whole of the Works, the Contractor may substitute an unconditional Bank Guarantee in the format as specified **(Form PW3-11)** acceptable to the Procuring Entity for the second half of the retention money as stated under GCC Sub Clause 60.2.

61. Liquidated Damages

61.1 The Contractor shall pay liquidated damages 16 to the Procuring Entity 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 Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

61.2 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 Sub-Clause 37.1.

62. Advance Payment

62.1 If so specified in the PCC, the Procuring Entity shall make advance payment to the Contractor of the amounts and by the dates stated in the PCC against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Procuring Entity in an amount equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on the advance payment.

62.2 The Contractor shall 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 for such specific purposes by supplying copies of invoices or other documents to the Project Manager.

62.3 The advance payment shall be repaid by deducting at proportionate rate 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.

63. Performance Security

63.1 The Procuring Entity shall notify the Contractor of any claim made against the Bank issuing the Performance Security.

63.2 The Procuring Entity may claim against the security if any of the following events occurs for fourteen (14) days or more.

(a) The Contractor is in breach of the Contract and the Procuring Entity has duly notified him or her ; and

(b) The Contractor has not paid an amount due to the Procuring Entity and the Procuring Entity has duly notified him or her.

63.3 In the event the Contractor is liable to pay compensation under the Contract amounting to the full value of the Performance Security or more, the Procuring Entity may call the full amount of the Performance Security.

63.4 If there is no reason to call the Performance Security, the Performance Security shall be discharged by the Employer and returned to the Contractor not later than twenty-eight (28) days after the Defects Liability Period has passed and the Project Manager has certified in the form of Defects Corrections Certificate.

64. Provisional Sums

64.1 Provisional Sums shall only be used, in whole or in part, in accordance with the Project Manager's instructions and the Contract price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Project Manager shall have instructed.

64.2 The Contractor shall, when required by the Project Manager, produce quotations, invoices, vouchers and accounts or receipts in substantiation of purchases under GCC Sub Clause 64.2.

65. Day-works

65.1 If applicable, the Day-works rates in the Contractor's Tender shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

65.2 All works 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 certified and signed by the Project Manager within seven (7) days of the works being done.

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

66. Cost of Repairs to Loss or Damages

66.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Period shall be remedied by the Contractor at the Contractor's own cost, if the loss or damage arises from the Contractor's acts or omissions.

E. Completion of the Contract

67. Completion

67.1 The Contractor shall apply by notice to the Project Manager for issuing a Completion Certificate of the Works, and the Project Manager shall do so upon deciding that the work is completed.

68. Taking Over

68.1 The Procuring Entity shall take over the Site and the Works within seven (7) days of the Project Manager's issuing a certificate of Completion.

69. Amendment to Contract

69.1 The amendment to Contract shall generally include extension of time to the Intended Completion Date, increase or decrease in initial Contract price and any other changes acceptable under the conditions of the Contract.

69.2 The Procuring Entity, in accordance with the Delegation of Financial Power or sub-delegation thereof, shall amend the Contract incorporating the changes introduced to the original terms and conditions of the Contract in line with the Rules.

70. Final Account

70.1 The Contractor shall submit with a detailed account of the total amount that the Contractor considers payable under the Contract to the Project Manager before the end of the Defects Liability Period.

70.2 The Project Manager shall certify the Final Payment within fifty six (56) days of receiving the Contractor's account if the payable amount claimed by the Contractor is correct and the corresponding works are completed.

70.3 If it is not, the Project Manager shall issue within fifty six (56) days a Defects Liability Schedule that states the scope of the corrections or additions that are necessary.

70.4 If the Final Account of Works submitted under GCC Sub Clause 70.1 is unsatisfactory even after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

71. As-built Drawings and Manuals

71.1 If "As Built" Drawings is required, the Contractor shall supply them by the dates stated in the PCC.

71.2 If the Contractor does not supply the Drawings and/or Manuals by the dates specified in GCC Sub Clause 84.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold a nominal amount specified in the PCC from payments due to the Contractor.

72. Force Majeure

72.1 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind stated below;

- war, hostilities (whether war be declared or not), invasion, act of foreign enemies ;
- rebellion, terrorism, sabotage by persons other than the Contractor's personnel, revolution, insurrection, military or usurped power, or civil war ;
- riot, commotion, disorder, strike or lockout by persons other than the Contractor's personnel ;
- munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity ;
- Natural catastrophes such as fires, floods, epidemics, quarantine restrictions, freight embargoes, cyclone, hurricane, typhoon, tsunami, storm surge, earthquake, hill slides, landslides, and volcanic activities.

73. Notice of Force Majeure

73.1 If a party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice, within fourteen (14) days after the party became aware, to the other party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented.

73.2 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either party to make payments to the other party under the Contract.

74. Consequences of Force Majeure

74.1 If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under GCC Sub Clause 73, and suffers delay and/or incurs cost by reason of such Force Majeure, the Contractor shall be entitled subject to GCC Sub Clause 80 to:

(a) an extension of time for any such delay, if completion is or will be delayed, under GCC Clause 39, and

(b) if the event or circumstance is of the kind described sub-paragraphs (a) to (e) of GCC Sub Clause 72.1 occurs in the Country, payment of any such cost, including the costs of rectifying or replacing the Works and Physical services damaged or destructed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in GCC Clause 31.

74.2 After receiving notice under GCC Sub Clause 73.1, the Project Manager shall proceed to determine these matters under the provisions of the Contract.

75. Release from Performance

75.1 Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the parties to be released from further performance of the Contract, then upon notice by either party to the other party of such event or circumstance:

(a) the parties shall be discharged from further performance, without prejudice to the rights of either party in respect of any previous breach of the Contract, and

(b) The sum payable by the Procuring Entity to the Contractor shall be the same as would have been payable under GCC Sub Clause 77.3 if the Contract had been terminated under GCC Sub Clause 76.3.

F. Termination and Settlement of Disputes

76. Termination

76.1 <u>Termination for Default</u>

(a) The Procuring Entity or the Contractor, without prejudice to any other remedy for breach of Contract, by giving twenty eight (28) days written notice of default to the other party, may terminate the Contract in whole or in part if the other party causes a fundamental breach of Contract.

(b) Fundamental breaches of the Contract shall include, but shall not be limited to, the following:

(i) the Contractor stops work for twenty-eight (28) days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Project Manager;

(ii) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within eighty four (84) days;

(iii) 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;

(iv) the Contractor does not maintain a Security, which is required;

(v) 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 specified in GCC Sub Clause 61;

(vi) the Contractor has subcontracted the whole of the Works or has assigned the Contract without the required agreement and without the approval of the Project Manager;

(vii) The Contractor, in the judgment of the Procuring Entity has engaged in corrupt or fraudulent practices, as defined in GCC Sub Clause 33, in competing for or in executing the Contract.

(viii) A payment certified by the Project Manager is not paid by the Employer or Fund Provider to the Contractor within eighty-four (84) days of the date of the Project Manager's certificate.

76.2 Termination for Insolvency

The Procuring Entity and the Contractor may at any time terminate the Contract by giving twenty eight (28) days written notice to the other party if either of the party becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to any party, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the other party.

76.3 Termination for Convenience

(a) The Procuring Entity, by giving twenty eight (28) days written notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Procuring Entity's convenience, the extent to which performance of the Contractor under the Contract is terminated, and the date upon which such termination becomes effective. (b) The Procuring Entity shall not terminate the contract under GCC Sub Clause 76.3 (a) in order to execute the Works itself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor as stated under GCC Sub Clause 76.1(a).

77. Payment upon Termination

77.1 If the Contract is terminated because of a fundamental breach of Contract under GCC Sub Clause 76.1 by the Contractor, the Project Manager shall issue a certificate for the value of the Works done and

Plant and Materials ordered less advance payments received up to the date of the issue of the certificate and less the amount from percentage to apply to the contract value of the works not completed, as indicated in the PCC. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.

78. Property

78.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Procuring Entity if the Contract is terminated because of the Contractor's default stated under GCC Sub Clause 76.1.

79. Frustration

79.1 If the Contract is frustrated by the occurrence of a situation of Force Majeure as defined in GCC Sub Clause 72, 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 works carried out before receiving it and for any work carried out afterwards to which a commitment was made.

G. Claims, Disputes and Arbitration

80. Contractor's Claims

80.1 If the Contractor considers himself to be entitled to any extension of the Completion Time and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Procuring Entity, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than twenty eight (28) days after the Contractor became aware, or should have become aware, of the event or circumstance.

80.2 If the Contractor fails to give notice of a claim within such period of twenty eight (28) days, the Intended Completion Date shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim.

80.3 Within forty two (42) days after the Contractor became aware or should have become aware of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed, for settlement.

81. Settlement of Disputes

81.1 <u>Amicable settlement</u>

The procuring Entity and the Contractor shall use their best efforts to settle amicably all possible disputes arising out of or in connection with this Contract or its interpretation.

81.2 <u>Arbitration</u>

(a) If the parties are unable to reach a settlement as per GCC Clauses 81.1 and 81.2 within twenty-eight (28) days of the first written correspondence on the matter of disagreement, then either party may give notice to the other party of its intention to commence arbitration.

(b) The arbitration shall be conducted in accordance with the Arbitration Act (Act No 1 of 2001) of Bangladesh as at present in force and in the place shown in the PCC.

Section 5. Particular Conditions of Contract

GCC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 1.1(i)	The Contractor is : Name: Address: Name of authorized representative:
GCC 1.1 (q)	The name of the Employer is: WaterAid Bangladesh.
GCC 1.1(cc)	The Procuring Entity is: Project Manager, SUNRISE Project, WaterAid Bangladesh.
GCC 1.1(dd)	The Project Manager is: A.B.M. Mobasher Hossain Project Manager WaterAid Bangladesh House No: 97/B, Road No: 25, Block: A Banani-1213, Dhaka, Bangladesh Tel.: +880-2-881-5757, 8818521 Fax: +880-2-988-2577 Email: ABMMobasherHossain@wateraid.org
GCC 1.1 (z)	The initial Contract price is Tk. In Figure (Taka In Words only)
GCC 1.1(w)	The Intended Completion Date for the whole of the Works shall be six months from starting of the contract
GCC 1.1(ff)	The Site is located at Chowhatta Point in Sylhet and is defined in drawings attached.
GCC 1.1(ii)	The Start Date is tentatively 01 January, 2018
GCC 1.1(ll)	The Work consists of Construction of Public Toilet at Chowhatta Point, Sylhet
GCC 2.5	The Sectional Completion Dates are: Not Applicable.
GCC 3.1	The Procuring Entity's address for the purpose of communications under this contract is: (a) A.B.M. Mobasher Hossain Project Manager

WaterAid Bangladesh
House No: 97/B, Road No: 25, Block: A
Banani-1213, Dhaka, Bangladesh
Tel.: +880-2-881-5757, 8818521
Fax: +880-2-988-2577
Email: ABMMobasherHossain@wateraid.org

The Contractor's address for the purpose of communications under this contract is: Contact person:

Address:

Tel:

E-mail address:

GCC 6.1 (j) Other documents forming part of the Contract are:

i) Work Plan

GCC 9.1 A Contractor must be eligible, experienced and registered in Bangladesh.

GCC 12.1 Possession of the Site or part(s) of the Site, to the Contractor shall be given on the following date(s): within 5 days of signing the agreement

GCC 17.1 Following Key Personnel to carry out the functions stated in the Schedule shall be employed by the Contractor:

1.

2.

3.

4.

5.

GCC 18.1 The Contractual matters between the Procuring Entity and the Contractor shall be decided by: Not Applicable

GCC 31.1 The minimum insurance cover shall be:

(a) The cover for insurance of the Works, Plant and Materials is the Initial Contract Amount plus 15%.

(b) The cover for Contractor's Equipment is the full replacement cost.

(c) The cover for insurance of Third Party injury to persons or death, and damage to property is Tk. In figure (Taka In Words only)

i. for third parties injury to persons or death is as per the law and common practice in Bangladesh.

ii. and for third parties damage to property is 10% of contract price.

(d) The cover for personal injury or death for the Contractor's Employer's and Engineer's personnel is …….

i. for the Contractor's employees is as per the law and common practice in Bangladesh.

ii. and for third parties is as per the law and common practice in Bangladesh.

GCC 34.1 Commencement Date of Works shall be as follows:

1. Civil Works –
2. Plumbing Works –
3. Electrical Works –
4. Site Clearance and Demobilization –

GCC 36.1 The Contractor shall submit a Programme for the Works within 7 (Seven) days of signing the Contract. (According to Work Plan)

GCC 36.2 The period between Programme updates is weekly. The measurement book updated daily will be supervised by Project Manager or their authorized personnel monthly.

GCC 36.3 The amount to be withheld for late submission of an updated Programme is Tk. 50,000.00 (Taka Fifty Thousand).

GCC 51.1 The Defects Liability Period is 6 (Six) months.

GCC 52 In addition, the Engineer may correct a defect using the retention money, retained from each payment in accordance with GCC 60.

GCC 59.3 The particulars of the Bank Account nominated are as follows:

Title of the Account :

Name of the Bank :

Name of the Branch :

Account Number :

Address :

Tel :

Fax :

E-mail address :

GCC 60.1 The proportion of payments to be retained is 10 (Ten) percent from each progressive payment & also from final account (Total final billed amount). i.e. Retention money is to be retained total 10 % from total final billed amount.

GCC 61.1 The amount of Liquidated Damages or in other words Delay Damages for the incomplete Works or any part thereof is 0.1 (Zero point one) percent of its Contract price per day of delay.

The maximum amount of Liquidated Damages for the uncompleted Works or any part thereof is 10 (Ten) percent of the final Contract price of the whole of the Works.

The amount of Penalty for incompliance of approved methodology, work plan, Safety security, execution methodology etc. as per technical proposal is 0.1 (Zero point One) percent for per incompliance identified. The maximum amount of penalty for incompliance is 10 (Ten) percent of the final Contract price of the whole of the Works.

GCC 62.1 The Advance Payment: Not Applicable

GCC 64.2 The percentage for adjustment of Provisional Sums is: Not Applicable

GCC 71.1 The date by which “as-built” drawings are required is

GCC 71.2 The amount to be withheld for failing to produce “as-built” drawings by the date required is Tk. 100,000 (Taka One lac)

GCC 77.1 The percentage to apply to the contract value of the works not completed, representing the Procuring Entity’s additional cost for completing the uncompleted Works, is 10 (Ten) percent.

GCC 81.3 (b) The arbitration shall be conducted in the place mentioned below:

WaterAid Bangladesh
House No: 97/B, Road No: 25, Block: A
Banani-1213, Dhaka, Bangladesh
Tel.: +880-2-881-5757, 8818521
Fax: +880-2-988-2577

Appendix to the Tender

Table 1.1: Price Adjustment Data……..N/A

Table 1.2: Price Adjustment Data……N/A

Section 6. Tender and Contract Forms

Form	Title
	Tender Forms
PW3 – 1	Tender Submission Letter
PW3 – 2	Tenderer Information
PW3 – 3	Personnel Information
PW3 – 8	Adequacy and proposed methodology and work plan
	Contract Forms
PW3 – 4	Notification of Award
PW3 – 5	Contract Agreement
PW3 – 6	Bank Guarantee for Tender Security
PW3 – 7	Bank Guarantee for Performance Security

Tender Submission Letter (Form PW3-1)

To: Date:

Project Manager, SUNRISE Project

Tender Package No:

This package is divided into the following N/A

Number of Lots

In signing this letter, and in submitting our Tender, we also confirm that:

(a) our Tender shall be valid for the period stated in the Tender Data Sheet (ITT Sub Clause 32.1) and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(b) a Tender Security is attached in the form of a [state pay order, bank draft] in the amount stated in the Tender Data Sheet (ITT Sub Clause 34.1) and valid for a period of twenty-eight (28) days beyond the Tender validity date;

(c) if our Tender is accepted, we commit to furnishing a Performance Security within the time stated under ITT Sub Clause 64.2 in the amount stated in the Tender Data Sheet (ITT Sub Clauses 63.1 and 63.2) and in the form specified in the Tender Data Sheet (ITT Sub Clause 64)

d) (1) valid for a period of twenty-eight (28) days beyond the date of issue of the Completion Certificate of the Works;

(e) we have examined and have no reservations to the Tender Document, issued by you on [insert date]; including Addendum to Tender Document No(s) [state numbers], issued in accordance with the Instructions to Tenderers (ITT Clause 11). [Insert the number and issuing date of each addendum; or delete this sentence if no Addendum has been issued];

(f) we are submitting this Tender as a sole Tenderer in accordance with ITT Sub Clause 39.3

(g) we are not a Government owned entity as defined in ITT Sub Clause 5.3

(h) we, declare that we are not associated, nor have been associated in the past, directly or indirectly, with a consultant or any other entity that has prepared the design, specifications and other documents in accordance with ITT Sub Clause 5.5;

(i) we, including Subcontractor for any part of the contract resulting from this Tender process, have not been declared ineligible by the Government of Bangladesh on charges of engaging in corrupt, fraudulent, collusive or coercive practices in accordance with ITT Sub Clause 5.6;

(j) furthermore, we are aware of ITT Clause 4 concerning such practices and pledge not to indulge in such practices in competing for or in executing the Contract;

(k) we, confirm that we do not have a record of poor performance, such as abandoning the works, not properly completing contracts, inordinate delays, or financial failure as stated in ITT Clause 5.7, and

that we do not have, or have had, any litigation against us, other than that stated in the Tenderer Information (Form PW3-2);

(l) We are not participating as Tenderers in more than one Tender in this Tendering process. We understand that your written Notification of Award shall constitute the acceptance of our Tender and shall become a binding Contract between us, until a formal Contract is prepared and executed;

(m) We, confirm that we do not have a record of insolvency, receivership, bankrupt or being wound up, our business activities were not been suspended, and it was not been the subject of legal proceedings in accordance with ITT Sub Clause 5.8;

(n) We, confirm that we have fulfilled our obligations to pay taxes and social security contributions applicable under the relevant national laws and regulations of Bangladesh;

(o) We, understand that you reserve the right to reject all the Tenders or annul the Tender proceedings, without incurring any liability to Tenderers, in accordance with ITT Clause 59.

Signature:

Name:

In the capacity of:

Duly authorized to sign the Tender for and on behalf of the Tenderer

Attachment 1:

[ITT Sub Clause 40.3]

Written confirmation authorizing the above signatory to commit the Tenderer

Tenderer Information (Form PW3-2)

Tender Package No:

This Package is divided into the following Number of Lots: N/A

	1. Eligibility Information of the Tenderer [ITT –Clauses 5 & 29]	
1.1	Nationality of individual or country of registration	
1.2	Tenderer's legal title	
1.3	Tenderer's registered address	
1.4	Tenderer's legal status [complete the relevant box]	
	Proprietorship	
	Partnership	
	Limited Liability Concern	
	Government-owned Enterprise	Not Applicable
	Others [please describe, if applicable]	Not Applicable
1.5	Tenderer's year of registration	
1.6	Tenderer's authorized representative details	
	Name	
	National ID number	
	Telephone	
	Fax numbers	
	Mobile	
	E-mail address	
1.7	Litigation [ITT Cause 13]	
	If there is no history of litigation or no pending litigation then state opposite "None". If there is a history of litigation, or a number of awards, against the Tenderer provide details below	

	A. <u>Arbitration Awards made against</u>			
	Year	Matter in Dispute	Value of Word	Value of Claim
	B. <u>Arbitration Awards pending</u>			
	Year	Matter in Dispute		Value of Claim
1.8	Tenderer to attach photocopies of the original documents mentioned aside		[All documents required under ITT Clauses 5 and 29]	
The following two information are applicable for National Tenderers				
1.9	Tenderer's Value Added Tax Registration (VAT) Number			
1.10	Tenderer's Tax Identification Number(TIN)			
2. Qualification Information of the Tenderer [ITT Clause 32]				
2.1	Specific Experience in Construction Works of Tenderer (Attach work completion certificate, Performance Certificate, other relevant documents) Completed Contracts of similar nature, complexity and methods/construction technology			
	Contract No Name of Contract	[insert reference no] of [insert year] [insert name]		
	Role in Contract [tick relevant box]	Prime Contractor	Subcontractor	Management Contractor
	Award date Completion date Total Contract Value	[insert date] [insert date] [insert amount]		
	Procuring Entity's Name Address	[state justification in support of its similarity compared to the proposed works]		

	Tel / Fax e-mail Brief description with justifications of the similarity compared to the Procuring Entity's requirements		
2.3	Average annual construction turnover [ITT Sub Clause15.1(a)] [amount invoiced to Procuring Entity(s) for each year of works in progress or completed, using rate of exchange at the end of the period reported]		
	Year	Amount & Currency	Taka or Equivalent Taka
2.4	Financial Resources available to meet the construction cash flow [ITT Sub Clause 15.1(b)]		
	No	Source of Financing	Amount Available
In order to confirm the above statements the Tenderer shall submit , as applicable, the documents mentioned in ITT Sub Clause 31.1(a), (b), (c) & (d)			
2.5	Contact Details [ITT Sub Clause 31.1 (g) & (i)		
	Name, address, and other contact details of Tenderer Bankers and other Procuring Entity(s) that may provide references, if contacted by this Procuring Entity		
2.6	Qualifications and experience of key technical and administrative personnel proposed for Contract administration and management as well as employed skilled workers/logistic support for the tender project [ITT Sub Clause 31.1(e)]		
	Position Name Years of General Experience		Years of Specific Experience

[Tenderer to complete details of as many personnel as are applicable. Each personnel listed above should complete the Personnel Information (Form PW3-5)]			

2.7	Major Construction Equipment proposed to carry out the Contract [ITT Sub Clause 31.1(f)]			
	Item of Equipment	Condition (new, good, average, poor)	Owned, leased or to be purchased (state owner, lessor or seller)	Mention use, Exclusively provided for the project, Hired on demand
[Tenderer to list details of each item of major construction equipment, as applicable]				
2.8	Provide documents of enlistment from multinational organization if any			

Personnel Information (Form PW3-3)

Tender Package No SUNRISE/WAB/PT/Chowhatta Ponit, Sylhet

This Package is divided into the following Number of Lots N/A

A. Proposed Position (Provide information for each candidate separately and mark the position)		
Construction Project Coordinator	Prime Candidate	Alternative Candidate
Construction Engineer	Prime Candidate	Alternative Candidate
AutoCAD Operator	Prime Candidate	Alternative Candidate
Scheduler, Quantity Surveyor and documentation engineer	Prime Candidate	Alternative Candidate

B. Personal Data	
Name	
Date of Birth	
Years overall experience	
National ID Number	
Years of employment with the Tenderer	
1. Academic Qualification: Institution: Date of Achievement:	

2. Academic Qualification: Institution: Date of Achievement:		
3. Academic Qualification: Institution: Date of Achievement:		
C. Membership Number from Professional Body: FIEB/MIEB/AMIEB etc. if any		
D. Present Employment [to be completed only if not employed by the Tenderer]		
Name of Procuring Entity:		
Address of Procuring Entity:		
Present Job Title:		
Years with present Procuring Entity:		
Tel No:	Fax No:	e-mail address:
Contact [manager/personnel officer]:		
E. Professional Experience		
Summarize professional experience over the last twenty years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.		

SN	From	To	Company, Project, Position, Job responsibility
1			
2			
3			

Key/alternate personal contact information: (e-mail ……., phone……)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client.

…….. Name	…….. Signature	…….. Date

…….. Name of authorized Representative of the Tenderer (the same who signs the tender)	…….. Signature	…….. Date

Notification of Award (Form PW3-4)

Contract No: Date:

To

……..

This is to notify you that your Tender dated [insert date] for the execution of the Works for Simulating Urban Norms for Rigorous Improvement in Sanitation Environment (SUNRISE) Project for the Contract Price of Tk. [state amount in figures and in words], as corrected and modified in accordance with the Instructions to Tenderers, has been approved by Project Manager, SUNRISE Project, WaterAid Bangladesh.

You are thus requested to take following actions:

i. accept in writing the Notification of Award within seven (7) working days of its issuance pursuant to ITT Sub Clause 62.1

ii. furnish a Performance Security in the form as specified and in the amount of Tk [state amount in figures and words] ,within fourteen (14) days of acceptance of this Notification of Award but not later than (specify date), in accordance with ITT Clause 64.

iii. sign the Contract within twenty eight (28) days of issuance of this Notification of Award but not later than (specify date), in accordance with ITT Sub Clause 68.2.

You may proceed with the execution of the Works only upon completion of the above tasks. You may also please note that this Notification of Award shall constitute the formation of this Contract which shall become binding upon you.

We attach the draft Contract and all other documents for your perusal and signature.

Signed:

……..
Project Manager, SUNRISE Project
WaterAid Bangladesh

……..
Duly authorized to sign for and on behalf of
Date:

Contract Agreement (Form PW3-5)

THIS AGREEMENT made on the [insert date] day of [insert month] 2017 between WaterAid Bangladesh, House 97/B, Road 25, Block A, Banani, Dhaka 1213 (hereinafter called "the Employer" and "the Procuring Entity") of the one part and [insert contractor's name and address] (hereinafter called "the Contractor") of the other part:

WHEREAS the Procuring Entity invited Tenders for Construction of Public Toilet at Chowhatta point, Sylhet and has accepted a Contract Package No: SUNRISE/WAB/PT/Chowhatta Point, Sylhet by the Contractor for the execution of Construction of Public Toilet SUNRISE/WAB/PT/Chowhatta Point, Sylhet in the sum of Tk. In Figure (Taka In Words only) (hereinafter called "the Contract Price") and the Employer has accepted to pay the amount payable to the contractor on basis of satisfactory completion of work.
NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of Contract hereafter referred to.

2. The documents forming the Contract shall be interpreted in the following order of priority with reference to the Tender document of Tender Package No: SUNRISE/WAB/PT/Chowhatta Point, Sylhet:
   (a) the completed Tender and the appendices to the Tender

   (b) the General Conditions of Contract

   (c) the Particular Conditions of Contract

   (d) the Notification of Award

   (e) the signed Contract Agreement

   (f) the priced Bill of Quantities

   (g) the Technical Specifications

   (h) the Drawings

   (i) Work Plan

3. In consideration of the payments to be made by the Employer (upon certification by the Procuring Entity) to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Procuring Entity and the Employer to execute and complete the works and to remedy any defects therein in conformity in all respects with the provisions of the Contract. The Procuring Entity hereby covenants to supervise the Contractor's works, but is not responsible for any modes of payment.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Construction of Public Toilet at Chowhatta Point, Sylhet 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 where of the parties hereto have caused this Agreement to be executed in accordance with the laws of Bangladesh on the day, month and year first written above.

Witness 1
Name
Title
For and on behalf of
WaterAid Bangladesh

Witness 2
Name
Title
For and on behalf of
WaterAid Bangladesh

Dr. Md. Khairul Islam
Country Director
For and on behalf of
WaterAid Bangladesh

Witness 1
Name
Title
For and on behalf of
Contractor

Witness 2
Name
Title
For and on behalf of
Contractor

Name
Contractor Representative
For and on behalf of
Contractor

Bank Guarantee for Tender Security (Form PW3-6)

[this is the format for the Tender Security to be issued by a scheduled bank of Bangladesh]

Date:

Tender Package No: SUNRISE/WAB/PT/Chowhatta Point, Sylhet

To:

Phone:

TENDER GUARANTEES No:

We have been informed that [name of Tenderer] (hereinafter called “the Tenderer”) intends to submit to you its Tender dated [date of Tender] (hereinafter called “the Tender”) for the execution of the Works of [description of works] under the above Invitation for tenders (hereinafter called “the IFT”).

Furthermore, we understand that, according to your conditions tenders must be supported by a Tender Guarantee.

At the request of the Tenderer, we [name of bank] hereby irrevocably undertake to pay you, without cavil or argument, any sum or sums not exceeding in total an amount of Tk. [insert amount in figures and words] upon receipt by us of your first written demand accompanied by a written statement that the Tenderer is in branch of its obligation(s) under the Tender conditions, because Tenderer:

(a) has withdrawn its Tender during the period of Tender validity specified by the Tenderer in the Form of Tender; or

(b) does not accept the correction of errors in accordance with the Instructions to Tenderers ITT of the IFT; or

(c) having been notified of the acceptance of the Tender by the Employer during the period of Tender validity, (i) fails or refuses to furnish the Performance Security in accordance with the ITT, or (ii) fails or refuses to execute the Contract Form,

This guarantee will expire

(a) if the Tenderer is the successful Tenderer, upon our receipt of a copy of the Performance Security and a copy of the Contract signed by the Tenderer as issued by you; or

(b) if the Tenderer is not the successful Tenderer, twenty eight days after the expiration of the Tenderer’s Tender validity period, being [date of expiration of the Tender].

Consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No 458.

Signature Signature

Bank Guarantee for Performance Security (Form PW3-7)

Contract No: ..... Date: .....

To
Project Manager, SUNRISE Project
WaterAid Bangladesh

PERFORMANCES GUARANTEE No:

We have been informed that ..... (hereinafter called “the Contractor”) has undertaken, pursuant to Contract No [insert reference number of Contract] dated [insert date of Contract] (hereinafter called “the Contract”), the execution of works renovation of public toilets at Saidabad Bus Terminal under the Contract.

Furthermore, we understand that, according to your conditions, the Contract must be supported by a Bank Guarantee for Performance Security.

At the request of the Contractor, we [name of bank] hereby irrevocably undertake to pay you, without cavil or argument, any sum or sums not exceeding in total an amount of Tk [insert amount in figures and in words] upon receipt by us of your first written demand accompanied by a written statement that the Contractor is in breach of its obligation(s) under the Contract conditions, without you needing to prove or show grounds or reasons for your demand of the sum specified therein.

This guarantee is valid until [date of validity of guarantee], consequently, we must receive at the above-mentioned office any demand for payment under this guarantee on or before that date.

Signature Signature

Adequacy and proposed methodology and work plan (Form PW3-8)

Tender Package No:	SUNRISE/WAB/PT/Chowhatta Point, Sylhet
This Package is divided into the following Number of Lots	N/A

A. Work methodology

General Construction execution, quality control procedure, Documentation and reporting procedure	Provide detail. Add additional page if needed
Site security and safety plan, enforcement etc.	Provide detail. Add additional page if needed

B. Work plan

Provide detail work plan in Microsoft excel/project etc. It must reflect the information required in IIT 16.1 a. Provide Projected dates for resource mobilization, construction start, utility connections, casting. Bill submission, site visit, approval of finishing items, pre-handover meeting, handover of the project etc.

Section 7. Bill of Quantities

(as attached)

Section 8. Technical Specifications

Technical Specification for construction of Public Toilet

8.1 General

8.1.1 Description of Work

This Contract calls for construction of Public Toilet including Civil works, Sanitary works, Plumbing, all Electrical Mechanical Equipment & Accessories and running water supply system and related works in accordance with the "Conditions of Contract", the Specifications, the Bills of Quantities, the drawings and or any other document which may be issued from time to time by the Engineer under the Terms of the Contract.

8.1.2 Any other related works not specified to complete the work

The works comprise but not limited to the following:

- Construction of Public Toilets including construction, installation & commissioning and others related works with supply of all material as per, drawings and instruction of engineer in charge etc. complete.
- Construction of Leach pit, soak pit, inspection pit where necessary and other related work as per BOQ & drawings and instruction of engineer in charge etc. complete.
- Construction of auxiliary facilities.
- Supply & installation of pump, motor, power line connection etc. and accessories for electrical and mechanical works as per BOQ, drawings and instruction of engineer in charge etc. complete.

8.1.3 Location of Work

The works to be carried out is at Chowhatta Point in Sylhet.

8.1.4 Access to Sites

The Contractor shall deem to have fully informed himself as to the suitability or otherwise of the road access to the sites and he is advised to study carefully the means of access and claim no extra costs incurred due to his lack of information will be entertained for payment by the Employer. He shall exercise due care in the use of any means of access he may use and shall make good any damage caused in their use. The Contractor shall provide such temporary site roads as necessary and bring the area to its original condition upon completion.

8.1.5 Contractor's Offices, Yards, Stores

It is preferred that the contractor will maintain a small site office at the location.

8.1.6 Existing Services

The Contractor shall take every precaution to ensure that all existing pipes or other services shall be protected. Any damage due to the Contractor's operations or to his negligence shall be made good by the Contractor at his own expense to the satisfaction of the Engineer.

The Contractor shall comply with the requirements of the Water, Gas, Telephone, Electricity and other Authorities. Where such interruption is unavoidable, it shall only be carried out with the permission (in writing) of the concerned authority.

If it should become necessary for the proper execution of the work, to remove or divert temporarily any existing water pipe, sewer, drain, electric/telephone poles or other service, the Contractor shall obtain permission from the Competent Authority or Owner and shall carry out the work at his own cost in a manner and at times to be approved by such Authority or Owner and shall subsequently reinstate the same to the satisfaction of such Authority or Owner.

8.1.7 Keeping Works Free from Water

Except where otherwise specified, the Contractor shall execute any temporary drains, water courses and other works that may be required to keep the works free from water and he shall arrange de-watering with the supply and pumping equipment's as may be necessary for the purpose. The whole cost thereof shall be deemed to be included in the rates for earthworks given in the Bills of Quantities.

8.1.8 Medical Facilities

During the progress of the works, the Contractor shall at his cost, provide and maintain easily accessible positions on the site adequate First Aid outfits.

8.1.9 Abatement of Nuisance

The Contractor shall adopt such measures as the Engineer may consider reasonable and necessary to minimize nuisance to others from noise, environmental pollution, dust and other causes.

8.1.10 Program and Methods

The Contractor is to proceed with the implementation of the works in accordance with the works schedule for commencement and completion of the various sections. He shall submit to the Engineer for his approval a statement with drawings and diagrams showing how he proposes to carry out the works. The statement shall describe the methods to be employed in the construction which the Contractor intends to adopt or use together with the estimated dates on which the various sections of the works will commence and complete as per Bar chart to ensure the whole of the works are completed within the contract period. Contractor must avoid any major activity (such as RCC Casting, Building layout, Brick wall layout, any major check etc.) being performed on Fridays, Saturdays or any other government approved holidays. Consultant is not liable to inspect/visit/check site on Fridays, Saturdays or any other government holidays. Contractor shall notify the consultant before performing concrete casting/or any other major construction activity. He can only proceed to perform any major activity at site only after the approval from the consultant. Considered time duration mentioned in the tender document for the completion of work is inclusive of mentioned weekends and all government holidays. Contractor should provide a project schedule as per stipulated conditions mentioned above.

It shall be the Contractor's responsibility before commencing the contract to obtain from the Engineer in writing the location and level of the benchmark to be used. All temporary benchmarks shall be referred thereto.

8.1.11 Documentation

All site activities should be properly documented by means of pictorial/video presentation with digital camera. Contractor should provide daily report of work progress via email at the end of working hour. Any quantity of work done should be documented and approved by Project Manager weekly.

8.1.12 Levels and Dimensions

(a) The levels of the ground and the levels and dimensions of existing features are believed but are not guaranteed to be correct. Wherever dimensions or levels are marked on the drawings, such dimensions or levels shall take precedence over dimensions scaled from the drawings and scaled dimensions shall be used only for the absence of other more precise information. Large scale drawings shall be used for more precise information.

(b) he drawings give dimensions and levels relating to the works, but these dimensions may be modified by the Engineer if so required.

(c) The Contractor shall set in the ground on the sites steel temporary benchmarks which shall be securely concreted in. He shall establish the levels of these benchmarks and obtain the agreement of the Engineer. All levels used in the construction of the works shall be referred to these benchmarks. Where any benchmark is situated within the working area, the Contractor shall, on written agreement from the Engineer, locate and establish new benchmarks outside the working areas.

8.1.13 Provision of Facilities for Engineer's Inspections

The Contractor shall provide the necessary documents, papers, tools, access and labor to enable the Engineer conveniently to carry out inspections at all times during the currency of the contract. The Contractor shall keep at site Inspection Book readily available to the Engineer or his representative to record instructions/comments etc.

8.1.14 Inspection by Engineer during Defects Liability Period

The Engineer will give the Contractor due notice of his intention to carry out any inspections during the defects notice period and the Contractor shall upon receipt of such notice arrange for a responsible representative to be present at the times and dates named by the Engineer. This representative shall render all necessary assistance and take note of all matters and things to which his attention is directed by the Engineer.

8.1.15 Submission of Samples

Before incorporating in the finished work any materials or articles which he must supply under the terms of the contract, the Contractor shall submit to the Engineer for his approval. The approved sample of each respective material or article and such samples shall be delivered to and kept at his office for reference. All the respective kinds of materials and articles used in and upon the works shall

be at least equal in quality to the approved samples. Each and every sample shall be a fair average of the bulk material or of the article, which it represents. The Engineer may decide the method by which each sample to be taken from bulk.

8.1.16 Responsibility Ordering Materials and Samples for Testing

The responsibility shall rest upon the Contractor for ordering and delivering materials and manufactured articles and samples that they may be tested sufficiently far in advance of the work so as not to delay it. He shall not be entitled to any time credit for delays occasioned by his neglect to order sufficiently well in advance or to make payment of any costs he may incur. Any tests carried out will be at the expense of the Contractor.

8.1.17 Quality of Materials & Workman-Ship

The materials and workmanship shall be of the best of their respective kinds and shall be to the approval of the Engineer. In the reading of these Specifications, the Phase "to the approval of the Engineer" shall deem to include in the description of all materials incorporated in the works whether manufactured or natural and in the description of all operations for the due execution of the works.

8.1.18 Spoil Dumps

The Contractor shall not deposit excavated materials on public or private land except where directed by the Engineer in writing and with the consent in writing of the local authority or of the owner or responsible representative of the owner of such land and only then in those places and under such conditions as the local authority, owner or responsible representative may prescribe and agreed by them.

8.1.19 Materials on and under the Site of Works

All soil, gravel, stone or other material obtained in the excavation, clearing and earth stripping of the sites of the works shall belong to the Employer except where otherwise described and must not be removed from the works site without the consent of the Engineer. The Contractor, however, shall use for the construction of the works any of the materials excavated which the Engineer may determine to be fit for such use as specified in the BOQ.

8.1.20 Unsuitable Material

Where in the opinion of the Engineer, existing materials are unsuitable for use in the construction, the Contractor shall remove such unsuitable material and replace it with materials approved by the Engineer and such work shall be covered by the conditions of contract.

8.1.21 Notice Boards

Notice Boards in Bangla and English are to be displayed in suitable positions on the sites before the work commences. This is to show the Employer's name together with the name of the project and the names of the Consulting Engineering Firm and the Contractor. The exact dimensions, layout and the positions of the signs on the site are to be agreed with the Engineer.

8.1.22 Traffic Safety and Control

The Contractor shall provide, erect and maintain on the sites at such positions and for such duration as may be required by the Engineer all protective barriers, traffic signs and traffic control signals necessary for the direction and control of all traffic and clear way when the work involved in the diversions has been completed.

The signs and barriers shall be adequately illuminated at night and kept clean and legible at all times. The Contractor shall reposition the barriers, signs and signals as necessary as the work progresses.

Where single file traffic is necessary, the Contractor shall, where directed by the Engineer, provide and maintain temporary lighting, barriers and traffic direction or signs required.

8.1.23 Local Regulations

The Contractor shall at all times conform to the provisions of any ordinance and of any order, proclamation, rule or notice made under any ordinance relating to the works, employment of laborer, etc. and to any water, electricity or gas company within whose area and jurisdiction the works are to be executed.

8.1.24 Price Escalation

During the construction period the market price of the construction materials may be higher or lower than the estimated cost/quoted rate submitted by the contractor for construction of toilets pipeline and ancillary works. The appointed contractor would not be allowed to claim extra money for escalation of price of materials or labor. The contractor will be paid for satisfactory completion of works only as per prices quoted in the BOQ of the tender document and for additional / extra works as ordered / directed by the Engineer with the approval of the authority where required.

8.1.25 General Costs

Any cost involved in the performance of works required under general aspects shall be deemed to be included in the contract cost if not specifically provided for in the Bill of Quantities.

8.2 Excavations

8.2.1 Excavation General

The work covered by this section consists of providing all plant, labor and materials, and of performing all operations in connection with clearing and grubbing of the job site from young growth, roots, from old building, fences and debris.

Stripping of topsoil, excavation of soil and rock for buildings, general placing of soil and refilling of the working spaces and trenches including compaction. Preparation of the final grade and topsoil. The work shall include disposal of surplus material, all necessary sheeting, shoring, protection of work and dewatering as required.

8.2.2 Setting out and site preparation

Prior to starting of earth works the contractor shall set-out the necessary alignment and grade boards for proper control of the works. All earth works shall have to be made to the required grades and sizes as per the drawings, specifications and directions of the Engineer. The contractor shall maintain the setting-out undisturbed during the course of earth work and subsequent construction and arrangements shall be provided for reference bench marks/reduced levels so that the levels can be checked and measured as and when necessary. Site preparation includes the clearing of the project area from aboveground obstacles, the removal of vegetation, stripping of topsoil and marking fixed points for controlling the levels and location of the structures, as well as surveying the surface.

Notwithstanding any relevant information furnished by the employer or Engineer the contractor shall be responsible for ascertaining from his own inspection of the site.

8.2.3 Structural Excavation

Structural excavation shall be in accordance with the dimensions shown in the Project drawings and according to the arrangement specified in the structural remarks drawing. If no slope inclinations have been shown, the contractor shall select an adequate slope at his option. However, he will be responsible for the stability of the ground. Excavation shall extend to a sufficient distance from walls or footings to allow for placing and removal of forms and for inspection.

Excavations shall be done in all kinds of materials up to a required depth and width as per drawing and direction of the Engineer. While excavating, at least 150mm of the depth shall initially be left un-excavated which shall be dug out carefully in the final dressing after checking of the levels. If any portion of the excavation is excavated to a greater depth than specified, the excess depth shall be filled up with compacted sand at the Contractor's own cost. If the excavated trench bed is water logged due to rains or due to seepage of water, care shall be taken to dewater and keep the trench dry. If required, dry sand is to be laid to the required thickness at Contractor's cost. The excavated earth shall be kept sufficiently away from the side walls to avoid collapse of the excavations due to the pressure of the surcharged earth and also in such a manner that it does not interfere with traffic or approach to private or public properties.

The Contractor shall support the sides of trench excavation to prevent any fall or run from any portion of the ground outside the excavation and to prevent settlement of or damage to structures adjacent to the excavation. The Contractor shall deem to have made his own allowance for any excess excavation necessary to provide space for such support and for any other working space. If for any reason any portion of trench excavation shall give way, the Contractor shall at his own expense take all necessary remedial measures including the excavation and removal of all the ground thereby disturbed and such

extra excavation shall be accounted for as excess excavation and shall be carried out at no additional cost.

Where the Contractor elects, and is permitted by the Engineer, to execute trench excavations with battered sides instead of providing support as aforesaid they shall be excavated to stable slopes and heights and the resulting extra excavation shall be held to be excess excavation.

Where land drains, culverts or field drains, water pipes, gas pipes, cables or other services etc. are severed by trench excavation, the contractor shall from the relevant parties obtain all necessary consents and execute the work in agreement with regulations etc. in force. The contractor shall take all necessary precautions to prevent damage to the said objects. Any expenses caused by damages etc. in this connection are the total responsibility of the contractor. For further details see BOQ.

8.2.4 Inspection by Engineer

When the specified levels of trench excavation are reached, the Engineer will inspect the ground exposed and if he considers that any part of the ground is, by its nature, unsuitable he may direct the Contractor to excavate further and to refill the further excavation with such material as he may direct but such further excavation shall not be held to be excess excavation.

Should the bottom of any trench excavation while acceptable to the Engineer at the time of his inspection subsequently become unacceptable due to exposure to weather conditions or due to flooding or have become very soft or loose during the progress of the works, the contractor shall remove such damaged, softened or loosened material and excavate further by hand and such further excavation shall be held to be excess excavation without any cost to the employer.

8.2.5 Disposal of excavated Materials

Subject to any specified requirements of the contract, the Contractor shall make his own arrangements for the temporary storage of any excavated material which is required for use in refilling trench excavations, including any necessary double handling. In this connection the Contractor shall have regard to the working areas available to him for the construction. Any temporary tips alongside the trench excavation shall be to stable slopes and heights. Where the nature of the excavated material is suitable, the Contractor's temporary storage as aforesaid shall include for separate storage. The Engineer may direct of any of the various grades of material hereinafter specified for the refilling and surface reinstatement. Any excavated material required for or not suitable for use as refilling as aforesaid or use elsewhere in the works shall remain the property of the Employer. The Contractor shall be responsible for its removal from the site and for disposal as directed by the Engineer. The cost of such removal of excess excavated earth shall be deemed to be included in the contract rates.

8.2.6 Back Filling Foundation Trench

Backfilling of foundation trenches shall be carried out by excavated material or sand or local fill sand as directed by the Engineer in 150mm. layers, each layer being thoroughly rammed and consolidated until desired density is achieved before the succeeding layer is placed. Any defect caused by subsidence of the backfilling as a result of improper workmanship shall be made good at the Contractor’s expense.

8.2.7 Back filling of excavated Pipeline Trench

Back filling of pipe trench shall consist of bedding, back fill in the pipe zone and back fill over the pipe zone as specified and shown in the drawings. Pipe bedding shall be prepared with sand (FM 1 -1.2) layer compacted to a thickness of 100mm or as instructed by the Engineer. After laying and testing of the pipes, the trench shall be back filled and compacted to 150 mm or as instructed by the over the top of the pipe with sand of specified thickness.

For back filling over the pipe zone in open areas / non traffic pathways and traffic ways excavated materials from the trench shall be placed in 150mm layers (or as instructed by the Engineer) and compacted to the original condition to the satisfaction of the Engineer.

To permit the proper consolidation of back fill into the voids behind trench sheeting and supports, trench sheeting shall be withdrawn gradually as back fill progresses in depth and along the trench. On no account shall any excavated material be dozed back when refilling trenches in roads and no back filling shall be carried out unless, in the opinion of the Engineer, sufficient mechanical rammers are in operation on that portion of the work.

Compaction of sand, local fill sand and excavated trench materials shall be done by watering and compacting with pneumatic or petrol driven tamper not exceeding in 150 mm layers. Prior to acceptance of the work, the Contractor shall re-grade the area up to the level of the surrounding ground.

Any approved refilling material become unacceptable to the Engineer due to exposure to weather conditions or due to flooding or have become soft or segregated during the progress of work, the Contractor shall at his own expense remove such damaged, softened or segregated material and replace it with fresh approved refilling material.

Volumes of back fill which fail to meet the specified compaction, as tested by the Engineer, shall be reworked and re-compacted as directed by the Engineer. For further details see BOQ.

8.2.8 Payment

As per BOQ.

8.3 Concrete Works

8.3.1 Portland cement Concrete

8.3.1.1 Description

This work shall consist of the construction of all portions of structures using Portland cement concrete of the required class or classes with or without reinforcement and with or without admixture, constructed in accordance with these specifications and to the lines, levels, grades and dimensions shown on the drawings and as required by the Engineer. Portland cement concrete shall consist of mixture of Portland cement, water, coarse and fine aggregate with or without admixture.

8.3.1.2 Quality of Concrete

The concrete shall conform to the requirements for the particular class as set out in Table 7.5.1 below. The proportion by dry weight of coarse to fine aggregate, which will normally be approximately 2 to 1 may be varied between 1.5 to 1 and 3 to 1 with the agreement of the Engineer provided the quality of the concrete is thereby improved. The minimum quantity of cement permitted will be as set out in Table 7.5.1even though the strength of mixes containing these quantities may exceed the minimum required for the particular classes. The contractor will design the concrete mixes and submit his proposals along with a certified test report from an approved testing laboratory for the approval of the Engineer at least 30 days before beginning his concrete casting operations. Further details are provided in BOQ.

Class	Cement Content Kg/m³		Range of Coarse Aggregate Size	Minimum Compressive Strength				Proportionate Mix
				7 – Days		28 – Days		
	Max	Min		Kg/m³	Psi	Kg/m³	Psi	
I	540	390	19 mm. – No. 4	200	2860	300	4285	1:2:2
II	540	330	19 mm. – No. 4	153	2185	250	3575	1:1½:3
III	540	280	19 mm. – No. 4	133	1900	200	2860	1:2:4
IV	540	220	19 mm. – No. 4	100	1430	150	2140	1:3:6
V	540	200	25 mm. – No. 4	67	960	100	1430	1:4:8

8.3.1.3 Trial Mixes

Class I and II concrete shall be limited in use as shown on the drawings or as otherwise ordered by the Engineer. Class III concrete shall normally be used for reinforced structures or elements of structures. Class IV and V concrete shall be used for un-reinforced concrete and for blinding layers where shown on the drawings or ordered by the Engineer.

Use of either crushed stone or broken brick chips as coarse aggregate for Class IV or V concrete shall be in accordance with the drawings or otherwise ordered by the Engineer except that only crushed stone may be used as coarse aggregate for any Class I, II and III concrete.

The contractor shall prepare trial mixes having workability, strength and surface finish as criteria to satisfy the Engineer regarding these qualities. The trial mixes shall be made and compacted in the presence of the Engineer using the same type of plant and equipment as will be used for the works. From each trial mix, cylinders shall be made and tested in accordance with Clause-7.5.1.3
From the same mix as that from which the test cylinders are made the workability of the concrete shall be determined by the Slump Test in accordance the AASHTO Test Method T 119 or other method approved by the Engineer.

8.3.1.4 Sampling and Testing

A trial mix for particular class of concrete shall be acceptable when the test cylinders (from sets of three cylinders made from the test batches) are cured and tested after 7 and 28 days in a laboratory approved by the Engineer and are not below the specified compressive strength. In addition the consistency shall be to the satisfaction of the Engineer.

When a proposed mix has been approved no variations shall be made in the mix proportions or in the type, size grading zone or source of any of the constituents without the consent of the Engineer who may require further trial mixes to be made before any such variation is approved.
Until the results of trial mixes for a particular class have been approved by the Engineer, no concrete of the relevant class shall be placed in the works.

A slump test of fresh concrete shall be taken for every batch or whenever directed by the Engineer to test the workability of the mix. Concrete mixes which exceed the maximum permissible slump shall be rejected outright and shall not be used in the works. Under no circumstances shall the contractor be allowed to rework defective mixes to attempt to achieve the specified slump.

The slump and the quantity of Portland cement, expressed in pounds per cubic yard shall be as shown in the following table.

Concrete Slump	Coarse Aggregate Size From No. 4 Sieve to		
	½”	¾”	1”
2 inches	573	545	517
3 inches	592	564	356
4 inches	611	583	555
5 inches	630	602	573
6 inches	649	620	592

Concrete slump shall be kept as low as possible consistent with proper handling and thorough compaction. Unless otherwise authorized by the Engineer, slump shall not exceed 4 inches.
Sampling of concrete for test purposes shall be carried out in accordance with the requirements of BS 1881 Part 3.

Concrete specimens shall be manufactured and cured in accordance with the requirements of BS 1881 Part 3.

Concrete of a particular class shall have a compressive strength at 28 days not less than that given in Table 7.5.1. If the compressive strength at 7 days is less than what is indicated on Table 7.5.1 the Engineer shall order all future concrete work on the effected elements to be suspended until the results of the 28 days test are available. Concrete not attaining the 28 days compressive strength shall be rejected. The contractor shall remove and rectify all affected elements to the satisfaction of the Engineer at his own expense.

8.3.2 Materials

8.3.2.1 Portland cement

Cement shall conform to the requirement of BS 12. Ordinary Portland and Rapid Hardening Portland cement.

The contractor shall provide adequate covered buildings for storing and protecting the cement against dampness. All cement shall be stored on pallets at least 150mm. off the floor. Cement which has become partially set or which contains lumps of caked cement shall be rejected. The used of cement reclaimed from discarded or used bags will not be permitted.

All cement shall have the written approval of the Engineer prior to being used in the works. The contractor is to produce samples of cement from his stock at site for physical and chemical tests as required under the contract or as on demand of the Engineer. The cement to be used in work is to conform to the following parameters as shown in Table 7.5.2. The contractor shall undertake at his own cost necessary tests for cement as and when asked by the Engineer.

Table 8.3.2:- Quality of Cement

Parameters	Standards / Remarks
1. Specific Surface (Turbidiment Method)	1500 – 1750 Sq.Cm/Gm.
2. Setting time (Vicat needle m/d) a) initial setting b) Final setting	 Not less than 30 minutes Not more than 6 hours
3. Tensile strength (Briquette Test) a) 3 days b) 7 days	 Not less than 20 Kg/Sq.Cm Not less than 25 g/Sq.Cm
4. Compressive strength (Standard Cube) a) 3 days b) 7 days	 Not less than 115 Kg/Sq.Cm Not less than 180 Kg/Sq.Cm

8.3.2.2 Water

The water used for the preparation of concrete or mortar shall be clean, potable, free from objectionable quantities of silt, organic matter, alkali, sulphates and other salts and other impurities and will be subject to approval of the Engineer.

8.3.2.3 Admixtures

Admixtures shall not be used without the written approval of the Engineer. The Contractor shall submit samples of any admixtures he proposes to use to the Engineer at least 28 days prior to the date of commencement of construction of the particular structure or portion of structure on which he intends to use such admixtures.

8.3.2.4 Reinforcement

All reinforcement shall comply with the requirements of Clause 7.4.

8.3.2.5 Damp Proof Course

Damp proof course (DPC) (1:1.5:3) in cement concrete with cement, sand (F.M. 1.2) and picked jhama or stone chips including breaking chips, screening, centering, shuttering, casting, curing and finished with a coat of bitumen including the supply of water, electricity and other charges and costs of tools and plants etc. all complete and accepted by the Engineer in Charge (Cement: CEM-11/A-M)

8.3.2.6 Coarse Aggregate

Coarse aggregate for concrete shall consist of stone or brick chips. Particle size analysis for concrete as per AASHTO M80.

Grading requirement for 20 mm Nominal maximum sized stone chips	
Sieve Size (mm)	**% passing of weight of total sample**
25	100
20	90- 100
12.5	20- 55
10	5- 20
5	0- 5
2.4	-
1.2	-

If brick chips are used, it shall be made from 1st class picked jhama bricks having a minimum compressive strength of 175 kg/cm2 for individual bricks and an average of 210 kg/cm2 as may be specified on the drawings and in the Schedule of Items/Works. Chips shall be graded from 5mm. to 20mm. with 33% passing 10mm sieve unless otherwise determined from the laboratory Trial Mixes or as directed by the Engineer.

All coarse aggregates shall be cleaned and made free from dust and other impurities by screening and washing in clean water immediately before use.

8.3.2.7 Fine Aggregate

Fine aggregates for concrete shall consist of a blend of coarse sand (Sylhet/ Domar with a FM of minimum 2.5) and medium sand (minimum FM of 1.5) having a minimum FM of 1.80 in accordance with the following gradation:

BS Sieve No.	Sieve Size mm.	Percentage Passing
7	2.36	90- 100
14	1.18	75- 90
25	0.60	45- 75
52	0.30	30- 5
100	0.15	0- 5

Fine aggregates shall be free from clay particles and other deleterious materials. Organic materials content shall not exceed 5% and silt and other fine materials content shall not exceed 6%. All fine aggregates shall be screened and washed in clean water immediately before use.

At the direction of the Engineer, the Contractor shall be responsible to assist in periodic sampling and providing in gradation test for each 15m2 (500 cft) of coarse and fine aggregate at his own cost.

8.3.2.8 Joints in Concrete

Joints is concrete shall be either construction joints or movement joints. Construction joints are joints required for the purposes of limiting the amount of concrete placed continuously. Movement joints are joints required in the permanent works and include expansion points.

8.3.2.9 Equipment and Tools

General

Equipment and tools necessary for handling materials and performing the work and satisfactory to the Engineer as to design capacity and mechanical condition shall be at the site of the work before work is started.

Formwork

Formwork shall include all temporary or permanent moulds for forming the concrete. All formwork shall be made of steel and it will be mortar tight. It should be rigid enough to maintain the concrete in position during placing, compaction, setting and hardening.

Curing Agent

The burlap used for curing shall be made from jute or hemp and at the time of using shall be in good condition, free from dirt, clay or other substances which interfere with its absorptive quality. It shall not contain any substance which would have a deleterious effect on the concrete. Burlap shall be of such quality that it will absorb water readily when dipped or sprayed.

Concrete Mixers

All concrete shall be mixed in concrete mixers machines unless otherwise approved by the Engineer. The contractor shall supply the rating capacity of each mixer he proposes to use for the Engineer's prior approval.

8.3.3 Construction Methods

8.3.3.1 General

The contractor shall maintain an adequate number of trained and experienced supervisors and foremen at the site to supervise and control the work.

8.3.3.2 Formwork, False Work and Centering

Before concrete is placed the Engineer shall inspect all formwork, false work and centering. No concrete shall be placed until the Engineer has inspected and approved such formwork, false work and centering. Such approval shall not relieve the contractor of any of his responsibilities under the contract for the successful completion of the structure.

8.3.3.3 Reinforcement

The Engineer shall inspect and approve all reinforcement in place in accordance with the requirements of Clause 7.6.2. Reinforcement for concrete structures before concrete is placed. An experienced steel fixer shall be present while all concrete is placed to ensure that no reinforcement becomes displaced during placing. If displacement occurs, repositioning of such reinforcement shall be done before placing continues.

8.3.3.4 Batching

The contractor shall provide such means and equipment required to accurately determine and control the amount of each separate ingredient entering the concrete mix. Such means as well as the equipment and its operation shall at all times be subject to approval of the Engineer.

All dry materials shall be measured by calibrated volume boxes.

8.3.3.5 Batch Mixing

The concrete mixer shall be cleaned before mixing begins. The concrete ingredients shall be mixed in a batch mixer or portable mixer for not less than 1½ minutes after all ingredients (except for the full amount or water) are in the mixer. The mixing time will be increased where the batch mixer exceeds a capacity of 1.5 m3. The Engineer reserves the right to increase the mixing time when the charging and mixing operations fail to produce a concrete batch throughout which the ingredients are evenly distributed and their consistency uniform.

The concrete shall be uniform in composition and consistency from batch to batch except when changes in composition or consistency are required. Water shall be added prior to during and following the mixer charger operations. Excessive over mixing requiring the addition of water to preserve the required concrete consistency will not be permitted.

8.3.3.6 Placing Concrete

All concrete shall be placed immediately after mixing. Concrete shall be placed in such a manner as to avoid segregation and the displacement of reinforcing bars and shall be spread in horizontal layers where practicable. Concrete shall be placed inside forms using hand shovels where necessary. In no instance shall vibrators be manipulated to transport concrete inside formwork.

Trough, pipes or short chutes used as aids in placing concrete shall be positioned in such a manner that segregation of the concrete will not occur. All chutes, troughs and pipes shall be kept clean and free from coating of hardened concrete or mortar. Concrete shall not be dropped freely over a vertical distance of more than 1.5 meters.

Concrete shall be placed continuously throughout each section of the structure or between indicated joints as shown on the drawings or as directed by the Engineer. If in an emergency it is necessary to stop placing concrete before a section is completed, bulkheads shall be placed as the Engineer may direct and the resulting joint shall be deemed a construction joint.

The contractor must not place concrete under condition as stated below:

- after dark
- during rains or storm
- when air temperature is more than 43^0C
- when the temperature of the concrete when discharged from mixer is more than 32^0C.

8.3.3.7 Vibrating Concrete

All concrete is to be vibrated in place using a mechanical vibrator approved by the Engineer. Mixing or placing of concrete shall not be allowed without a vibrator in top working condition on site. Concrete shall be poured and compacted in the presence of the Engineer or his representative.

The concrete shall be worked under and around the reinforcing bars and into corners of forms with the use of vibrators immediately after placing. Touching the reinforcement bars with the vibrator shall not be permitted.

The vibrators shall be inserted slowly and vertically at points 450 to 500mm. apart before more concrete is added. The vibrators shall be moved to new position as frequently as necessary to ensure uniform vibration of the whole mass.

8.3.3.8 Curing

All concrete surfaces shall be kept wet for at least seven days after placing. Deck slabs shall be covered with wet burlap immediately after final finishing of the surface. This material shall remain in place for the full curing period or may be removed and replaced with sand when the concrete has hardened sufficiently to prevent marring. In both cases the materials shall be kept thoroughly wet for the entire curing period. All other surfaces, if not protected by forms shall be kept thoroughly wet, either by sprinkling or by the use of wet burlap until the end of the curing period. If wood forms are

allowed to remain in place during the curing period they shall be kept moist at all times to prevent openings at joints.

8.3.3.9 Removal of Formwork and False work

Forms and false work shall not be removed without the approval of the Engineer. The Engineer's approval shall not relieve the contractor of responsibility for the safety of the work. Blocks and bracing shall be removed at the same time as the forms and in no case shall any portion of the wood forms be left in the concrete.

As soon as the forms are removed all wire or metal devices used for securing the formwork which project from or appear on the surface of the finished concrete shall be removed or cut back at least 25mm from the finished surface of the concrete. All holes and pockets so formed shall be filled with cement mortar mixed in the same proportions as the fine aggregate to cement of the concrete mix used for that particular section of the structure after the surface to be patched has been thoroughly cleaned and wetted to receive the patch.

8.3.3.10 Finishing Concrete

All concrete surfaces exposed in the completed work shall comply with the requirements for ordinary finish except were the drawings indicate otherwise.

An ordinary finish is defined as the finish left on a surface after the removal of the forms when all holes left by form ties have been filled and any minor surface defects have been repaired. The surface shall be true and even free from depressions or projections.

8.3.3.11 Loading

No superstructure load shall be placed upon finished bents, piers, or abutments until the Engineer so directs, but in no case shall any load of any kind be placed until curing has been completed as specified above. The contractor shall not pile any temporary loads on deck slabs. Deck slabs shall be loaded only when so directed by the Engineer and generally no sooner than 28 days after the placing of the concrete has been completed.

8.3.3.12 Cleaning Up

Upon completion of structure and before final acceptance the contractor shall remove all false work, false work piling etc., down to the finished ground line. Excavating useless materials, rubbish etc. shall be removed from the site. The site shall be left in a neat and presentable condition acceptable to the Engineer.

8.3.3.13 Measurement and Payment

The concrete cast-in-situ shall be measured by the number of cubic meters of the several classes complete in place and accepted. In computing quantities, the dimensions used shall be based on actual measurement but they shall not exceed those shown on the drawings or ordered in writing by the Engineer. The measurement shall not include any concrete used for the construction of temporary works.

Pay items shall be as per the Bill of Quantities.

8.4 Reinforcement for Concrete Structures

8.4.1 Description

This work shall consist of transporting storing and placing reinforcement bars of the types and sizes in accordance with these specifications and as shown on the drawings.

8.4.2 Materials

Bar reinforcement shall conform to the general requirements of BDS 1313:1991 for deformed steel bars (Grade 60) with minimum fy=60000 psi.

8.4.3 Reinforcement binding wire shall be 22 BWG

The Engineer reserves the right to inspect the place where the steel for reinforcement or binding wire is manufactured and select samples for load testing. The cost of such testing shall be borne by the contractor.

The contractor shall submit samples of the various sizes of reinforcement steel and binding wire as well as their respective certificates of testing that he proposes to use for the Engineer's approval prior to commencing any concrete work. Materials rejected either by visual inspection lack of certification or after load tests have been conducted shall be immediately removed from the site.

Reinforcement for structures shall be handled and stored in a manner that will prevent the unnecessary accumulation of dirt, oil, grease, paint mill scale and loose or thick rust. Bars shall be cut and bent cold to the dimensions indicated and with equipment and methods approved by the Engineer in accordance with the drawings, BDS 1313: 1991/ BDS CP 110 "Structural Use of Concrete" and BS 4466 and "Bending dimensions and scheduling of bars for the reinforcement of concrete."

Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum thickness except for bars larger than 30mm. in which case the bends shall be made around a pin of eight bar diameters.

All bar reinforcement shall be placed, supported and secured before the beginning of concreting operations. The relation between the minimum spacing of bars and the maximum size of aggregate shall be as follows unless otherwise stated by the Engineer. The minimum clear distance between two bars in a beam or column shall not be less than the diameter of the bar or 25mm. or the largest size of aggregate plus 10mm. whichever is the greatest.

Laying or driving bars into the concrete after placement will not be permitted.

8.4.4 Payment

Pay items shall be as per the Bill of Quantities

8.5 Brick Masonry Works

8.5.1 General

The specification section covers the construction of brick masonry in cement mortar.

All brick masonry required to be constructed under the specifications or as may be required by the Engineer shall consist of the materials specified below. These materials shall be supplied, proportioned, mixed, formed and placed in accordance with these stipulations and requirements or as ordered by the Engineer. These stipulations and requirements shall apply to all brick masonry works, except when such works are specifically modified by the Engineer.

8.5.2 Bricks

Well burnt first class coal or natural gas fired clay bricks of uniform colour, shape and size having sharpened square sides and edges as well as parallel faces shall be used. Bricks shall be sound, hard, homogenous in texture, free from cracks, chips flows etc. Bricks shall emit a clear metallic sound when struck.

The mean compressive strength of twelve halved bricks shall be 175 kg/cm3. The minimum compressive strength for an individual brick shall be 140 kg/cm^3.

The maximum water absorption of the bricks shall be 14% by weight. Slight efflorescence shall be permitted with the approval of the Engineer.

The standard dimensions of first class bricks shall be 240mm x112mm x70mm. The allowable variation shall not be more than 6mm in length, 3mm in breadth and 1mm in height. Banana shaped bricks shall be rejected and shall not be used in the works.

The minimum unit weight of first class bricks shall be 1100 kg/m^3. The minimum weight of first class picked jhama bricks shall be 1300Kg/m3.

The Engineer reserves the right to inspect the place where the bricks are manufactured and select bricks for load testing as he may direct. The cost of such testing shall be borne by the contractor.

8.5.3 Cement Mortar

Brick masonry work shall be laid with the specified mortar of workable consistency as detailed in the drawings. Mortar mix proportions by volume for all type of brick work shall be as specified in the Bill of Quantities or as detailed in the drawings.

Cement for cement mortar shall comply with Clause 7.6.2.1

Sand for cement mortar shall comply with Clause 7.6.2.6.1 with minimum fineness modules of 1.8 unless otherwise specified.

Methods and equipment used for proportioning and mixing mortar shall be such that they will accurately determine and control the amount of each separate ingredient entering in to the mortar and shall be subject to the approval of the Engineer.

Mortar shall be mixed only in quantities sufficient for immediate use. All mortar not used within 30 minutes after adding water to the mix shall be discarded. Re-tempering of mortar will not be allowed. Mixing troughs and pans shall be thoroughly cleaned and washed at the end of each day's work.

8.5.4 Placing of Brick Masonry

Brick used in masonry shall be properly cleaned and scrubbed before placing and shall be approved by the Engineer. The brick shall be thoroughly soaked in water for at least six hours by immersing it in a water reservoir. Soaking shall be discontinued at least two hours before use. The soaked bricks shall be kept on wooden planks or Hessian cloth to avoid earth or other harmful material being smeared on the brick.

Brick shall not be place during rains sufficiently heavy or prolonged to wash mortar from the masonry. Mortar already spread which becomes diluted by rain shall be removed and replaced before continuing with the work. Loads shall not be allowed on the brick masonry before it is fully set.

Masonry shall be placed on properly prepared and firm foundations accordance with the drawings of the Engineer's instruction. Foundations shall be approved by the Engineer before placing masonry.

Generally bricks shall be laid in English Bond with frogs upward unless otherwise specified. Half or cut bricks shall not be used unless necessary to complete the bond.
Brickwork in honeycomb shall be done exactly the same as general brickwork except that the openings of stated sizes are to be left in the masonry.

A layer of mortar shall be spread to the full width and a suitable length of the lower course. Each brick shall be properly bedded with its frog mark upwards and set by gentle tapping with the handle of a trowel. Its inside faces shall be covered with mortar before the next brick is laid and pressed against it. All joints shall be completely filled with mortar.

The thickness of all mortared joints used in brick masonry shall vary between 10 and 14mm. unless otherwise shown on the Drawings, indicated in the Bill of Quantities or ordered by the Engineer.

Old brickwork shall be toothed to the full width of the new wall and to the depth of a quarter of a brick in alternate courses. It shall be cleaned of dust, loose mortar and thoroughly wetted with water before starting new brickwork. The thickness of each course of new brickwork shall be made equal to the thickness of the corresponding course of the old brick work by adjusting the thickness of the horizontal mortar joint.

All anchors, holdfast, frames sub-frames and other hardware fittings required to be built in the masonry shall be positively set without disturbing the pattern as the brickwork progresses. No deviation shall be allowed unless permitted by the Engineer.

8.5.5 Curing and Repair

Fresh masonry work shall be protected from rain or quick drying due to direct heat by a suitable covering of empty cement bags or other acceptable methods approved by the Engineer.

When curing by water the brick masonry shall be kept moist continuously for at least seven days, unless otherwise specified by the Engineer. Water used for curing shall meet the requirements of the specification for water used for mortar specified in Clause 7.5.2.1.
The top of the masonry work shall be left flooded with water at the close of the day following work. Flooding shall be done after the mortar has started to set.

If, after the completion of any masonry the masonry is out of alignment not leveled or does not conform to liners and grades shown in drawings it shall be removed and replaced by the contractor at his expense unless the Engineer grants permission in writing to patch or replace part of the defective area to his satisfaction.

8.5.6 Measurement and Payment

All brickwork of 250mm. thickness and above shall be measured by cubic meter. For brickwork of less than 250mm. thickness the measurement shall be made on the basis of square meters.

Payment shall be made at the contract unit price per cubic meter or square meter for the accepted volume or area of work done as per the specifications and drawings after being measured and recorded in the measurement book. The accepted volume or area of work done shall be full compensation for all materials, transportation, breaking and stockpiling and other measure needed to comply with full specifications and for all labor, equipment, tools and all incidental charges to complete the work.

8.6 Brick Soling and laying Polythene sheet

8.6.1 General

This work shall consist of the construction of brick soling for the construction of Public Toilets, foundation etc. as shown on the drawing or ordered by the Engineer. Brick soling with mortared joints shall be considered to be brick masonry as described in section 7.7.2 – 7.7.4.

8.6.2 Materials

Brick for brick soling comply with clause 7.8.2

Sand filler shall consist of sound, clean, free draining fine sand having FM of 0.8 as approved by the Engineer.

8.6.3 Construction Methods

All works to be covered by brick soling shall be compacted and trimmed to the lines and levels shown on the drawings and compacted to the satisfaction of the Engineers before the bricks are placed.

Bricks shall be hand laid with each brick touching the adjacent brick and laid flat or on edge in a herringbone bond unless otherwise directed. The bonds shall have their joints broken in both

longitudinal and transverse directions. Immediately after the bricks are placed all gaps shall be blinded with sand by spreading and brushing until the gaps are filled. Water shall be poured freely on the entire surface so that the sand enters and completely fills the interstices.

For single layers of flat brick soling the interstices shall be filled with sand at $0.085m^3/m^2$.
Local deviations in the finished brick soling surface shall not be permitted.

8.6.4 Measurement and Payment

All measurements will be made according to the lines, levels and thicknesses shown on the drawings or ordered by the Engineer. Brick soling shall be measured per square meter.

Payment for brick soling shall be full compensation for all costs involved in the construction of the specified work, including the transportation of all materials, equipment, tools, incidental charges and labor required to carry out the work. Pay items shall be as per the Bill of Quantities.

8.6.5 Polythene sheet shall be laid below Brick Flat Soling and above brick wall (below roof during casting) as per specification, instruction of the Engineer in charge.

8.7 Cement Plastering

8.7.1 General

This work shall consist of the application of cement plaster to masonry and all other surfaces shown on the drawings or ordered by the Engineer.

8.7.2 Materials

Cement mortar for plastering shall conform to the general requirements given in Clause 7.6.2.1 Sand having a FM of at least 1.2, shall be screened and washed prior to use to remove all deleterious materials.

8.7.3 Construction Methods

The surfaces to be plastered shall be cleaned of all dust and mud by brushing and scraping. All loose flakes of brick, mortar or stone shall be removed with a trowel or a hammer and chisel. Bricks to be plastered shall be thoroughly wetted and maintained wet for at least 24 hours before any plaster is placed on them.

The average thickness of the final layer of plaster shall be not less than the specified thickness by more than 3mm. In local depressions were the masonry surface requires more than 20mm. of plaster an initial leveling layer of plaster shall be applied and allowed to set for 24 hours prior to applying the final surface. The leveling layer shall be left rough and grooved by trowel cuts to ensure a good bond with the final layer.

The mortar for the final layer of plaster shall be applied in a fairly wet condition as a rough layer of approximately the required thickness. The evenness of the layer shall be continuously checked using a wooden straight edge. When the plaster has achieved its initial set and feels firm under the finger

tips the surface shall smoothed using a wooden float. Where required by the Engineer, the plaster surface shall be finished using a steel float or trowel and a light application of water as required to seal the surface. The masonry surfaces shall then be thoroughly wetted and kept wet for at least seven days. During this period it shall be suitably protected from all damages.

Mortar stricken off the plastered surface shall not be reused. Such work using reused plaster shall be rejected and redone to the satisfaction of the Engineer at the Contractor's expense.
A full wall or ceiling shall be completed in one day.

All plastered surfaces shall be absolutely plane and free of joint patches or laps. Corners and edges shall be finished as shown on the drawings or as otherwise directed by the Engineer. The plaster shall be cured for a minimum of 7 days. A coat of neat cement finish approximately 1.5mm thick shall be applied where shown on the drawings or otherwise directed. The cement shall be applied by hand and brushed while the plaster is still fresh. It shall be finished smooth with steel trowels and brought to the desired polish. Marks of any kind shall be removed to the satisfaction of the Engineer.

Any cracks which appear on the surface as well as all portions which sound hollow when tapped are found to be soft or are otherwise defective shall be cut out in a rectangular shape and redone as directed by the Engineer.

8.7.4 Measurement and Payment

Payment for cement plastering shall be full compensation for all coasts involved in the work as specified including the provision of all materials, equipment and labor required to carry out the work. No separate payment will be made for extra cement used in neat cement finishing where stated in Bill of Quantities. The cost of cement plaster and neat cement finishing shall be considered as being included in the tendered unit rate as per Bill of Quantities.

8.8 Painting to walls, ceilings works

8.8.1 White and color washing (where applicable)

The work to be performed includes the painting with three coats of white or colour wash to all exterior and interior plastered surfaces designated to receive such painting. Prior to preparation of white wash paints all ingredients shall be available at site for inspection and approval of the Engineer. White wash shall be prepared in clean drums by mixing and stirring unslaked lime (lime stone) with water in such proportion as to produce a mixture of thin consistency cream when thoroughly mixed. The lime then shall be strained through clean coarse cloth. Gum in the proportion of 0.11Kg to 27Kg. of lime shall be added in the screened lime.

In coase of white washing robin blue completely dissolved in water and stirred through fine cloth shall be added. For color washing the required amount of color shall be added to the previously prepared white wash and thoroughly stirred.

Surface to receive white wash or color wash shall be thoroughly cleaned with clean water and freed from all foreign matters. Defects shall be repaired for a smooth, finished surface. White wash or colour wash shall be applied to surfaces in two coats over a priming coat. It shall be applied vertically and horizontally in alternate applications. The final coat shall be applied vertically and horizontally in alternate applications.

The final coat shall be applied vertically. Each coat shall be perfectly dry before the succeeding coat is applied over it. In case of colored wash the priming coat shall be white. The final coat shall be

perfectly smooth and free from any mark of the brush. Care shall be taken to protect hardware, doors, windows, floor etc. against spreading of paints. After white washing all unwanted paint marks and drips shall be removed thoroughly at contractor expense.

8.8.2 Distemper, Enamel Paint

The paints shall be Bangladesh Dulux/ Barzer brand or equivalent. Sample of the paint used for the work shall be approved by the Engineer and the same type of paint shall be used throughout.

Before painting work is commenced the finished surface shall be coated with alkali resistant paint and sized with approved primer in accordance with the manufacturer's specifications for the respective kind of paint to be applied. Paint shall be applied quickly and boldly with large flat brushes, rollers or sprayers of approved make. The brush is to be dipped and stroked cross-wise on the walls and then immediately stroked up and down. This process shall be considered to be one coat of paint. Each coat shall be inspected and passed by the Engineer before the next coat is applied. The finished surface shall be carefully stippled to remove any brush marks. The contractor shall carry out as many coats as are specified in accordance with the above specifications. If finished surface is not up to the specified standard the contractor shall provide extra coats to produce the required uniform finish and no payment shall be made for the work so done to produce the desire uniformity.

8.8.3 Painting

Painting of steel surface shall be done with one coat of red lead prime followed by two coats of synthetic enamel paint as approved by the Engineer painting to door and window frames and shutters in two coats with approved best quality and color of synthetic enamel paint delivered from authorized local agent of the manufacturer in a sealed container, having highly water resistant, high bond ability, flexible, using specific brand thinner applied by brass/ roller/spray over a coat of priming elapsing time for drying including surface cleaning from dust, oil or dirt, smoothening, finishing and polishing with sand paper and necessary tools, scaffolding, testing charges etc. all complete in all floors approved and accepted by the Engineer.

8.8.4 Payment

8.8.5 Pay items shall be as per the Bill of Quantities*.*

8.9 Doors, Windows & Grills

8.9.1 General

It is required to supply and make door and window frames (Chowkat) and Panels with matured natural seasoned wood of required size including clear mat Polishing, two coats of coal tar to the surface in contact with wall, fitting and fixing in position etc. complete and accepted by the Engineer in Charge. (All sizes of wood are finished) 8.8.5.
All steel materials used shall be the products of reputable manufacturer and shall conform to the British or American Standard specifications. The section, sizes and profile shall be as per requirement for the specific works as shown in the drawings and bill of quantity.

8.9.2 Workmanship

The frameworks anchors shall be true to size and shape and when fixed in position it shall completely conform to the drawings. Tolerance shall have to be kept so that the framing can be fixed in without distortion. Joints, unless otherwise specified in the drawings or by the Engineer shall be standard welded joints. Reverted or pin joints if required shall conform to British or American Standard specifications for steel connections regarding size and quality of rivets, tolerance, spacing, maximum and minimum pitches driving and finishing of the rivets etc.

8.9.3 Welding

The welding in steel joints shall be done neatly. The operation shall be done in a continuous run for as much length as reasonable for each run. The deposit of weld metal shall be as uniform as possible. The crust of weld metal shall be chipped off by light hammering and cleaned by steel wire brushes before doing the second run. The surface of the final run of weld metal shall be even and flush with surrounding metal surface, the surface of the weld metal shall be rendered smooth and flush with the surrounding surface by power grinding supplemented by manual grinding where the former is not feasible.

8.9.4 Payment

Pay items shall be as per the Bill of Quantities.

8.10 Tiles, Marble, Granite works

Supplying, fitting and fixing floor/wall tiles (Local made RAK/Star OR EQUIVALENT) with cement sand (F.M. 1.2) mortar (1:4) base and raking out the joints are required with white cement including cutting and laying the tiles in proper way and finishing with care etc. all complete and accepted by the Engineer-in-charge.

18 mm thick Marble stone/Granite on counter top/other specified areas as per BoQ with super quality black/ white marble stone of approved texture and size over 25 mm thick cement sand (F.M. 1.2) mortar (1:2) including. placing cement slurry below the stone, cutting the marble stone to desired size, grinding and finishing the edges, setting in position in proper level filling the gaps with white cement and coloring pigments including supplying all necessary equipment's/materials and finishing the top by pumic stone and necessary auxiliary materials and water, electricity and other charges complete in all respect accepted by the Engineer in Charge. All dimension and other information are ensured from drawing. (Cement: CEM-11/A-M). The details are provided in BOQ.

In case of variation of approved item, rate shall be analyzed as per PWD schedule with quoted rate of different elements to finalize.

8.11 Glass Works

CLEAR FLOAT GLASS 8MM Thickness 96 X 72 (COO NO.VN-IN 15/01/00124 DT.15.1.15), fitting and fixing with putty or other means all complete as per direction of Engineer in charge.

8.12 Flower Bed

As specified in the BOQ and Drawing.

8.13 Plumbing Work in Water Supply, Sewerage and Drainage

8.13.1 General Requirements

The contractor shall install plumbing works as specified herein in accordance with the relevant British Standard specifications or equivalent. The contractor shall execute plumbing work completely, even though some requirements are not contained in the specifications or indicated in the Bill of Quantities and drawings.

All materials installed shall be surface fixed to walls under partitions and to the soffits of floors. The beams, walls and partitions through which the pipes must pass shall be drilled in such a way that the building will not be structurally weakened. All plumbing shall be carried out by or under the supervision of an experienced plumber duly licensed under the relevant authority. The contractor shall submit shop drawings for all required works for approval by the Engineer.
All bib, pillar and stop cocks shall be high quality screw down type brass/chromium plated brass and shall comply with BS 1010. Spindles, glands, washer plates etc. shall be of brass. The washers and gland pickings in taps shall be equally suitable for hot and cold water.

8.13.2 Water Supply Pipes and Fittings

Plumbing installations for water supply shall be constructed of best quality galvanized iron pipes conforming to BS 1381 and screw threaded malleable galvanized fittings of accepted quality. All screwed pipes and sockets shall have threads in accordance with BS-21.

In order to prevent damage to the leading thread the ends of sockets shall be chamfered internally. The threads of all pipes shall be effectively covered with good quality grease or other suitable compound and each tube above 50mm. nominal bore shall have a protecting ring affixed to the un-docketed screwed eng.

All distribution lines to toilets shall be of minimum 19mm. diameter only runs of pipes to single fittings shall be constructed of 13mm. pipe.

8.13.3 Installation Procedure

Every horizontal pipeline attached to walls, floors, roofs, or ceilings shall be supported by galvanized pipe brackets placed securely into the walls, floors, roofs and ceilings at intervals not exceeding 1.5m throughout its length and at all changes in direction to ensure a deflection not exceeding 2mm. Vertical pipes shall be provided with heavy iron clamps one at every floor level.
Hangers and supports shall be secured to the structure by providing inserts in the concrete or by means of fish plates in cases of heavy loads. Every pipeline laid through any wall, floor, ceiling, roof, partition or similar shall be arranged to pass through sleeve pipes of ample diameter embedded therein

to enable the pipeline to pass easily and freely. The length of every such sleeve pipe shall be of the full width or thickness of the wall and in the case of roof, ceiling or floor shall be at least 300mm. longer than the thickness thereof and shall project to that extent above the upper surface thereof. The space between the sleeve and the pipe passing through it will be filled with plastic bitumen or similar bituminous compound for a minimum distance of 150mm. on either side. The bituminous material shall not melt at temperatures up to 800°C.

All screwed joints; both internal and external shall be examined before jointing to ensure that the threads are perfect for the full depths of the joints. The jointing work shall be so arranged in the case of every joint that the two ends of pipes or specials jointed thereby shall be equidistant from the middle of the socket and shall have a space of not more than about 25mm. between them in the center of the socket.

In order to ensure tightness, Teflon tape or a few very thin strands of best quality country cotton yarn smeared over carefully with genuine red lead shall be wound in the grooves of the threads from end to end of the joint if the screwed joint is a little slack. For this purpose, hemp or jute or any material other than the described above shall on no account be allowed.
The pipes shall be screwed up tightly with pipe fitter's or pipe wrenches to ensure that each and every joint is perfectly water tight against the test head of water.

8.13.4 Testing

All pipelines in course of or after laying and jointing but before being covered shall be tested hydraulically using a test pump fitted with accurate pressure gauge to 40m head of water or such other test head at least 50 percent above the working pressure. All pipes, specials and fittings with their joints shall remain perfectly water tight under the full test head for a period of not less than one hour after the whole length of the pipeline has been head for a period of not less than one hour after the whole length of the pipeline has been examined and demonstrated to be water tight. In addition to manufacturer's routine testing, samples of fittings shall be mechanically tested in accordance to BS 143.

8.13.5 Underground Reservoir, overhead tank and septic tank

As specified in the BOQ and drawing.

8.14 Plumbing Works

8.14.1 Plumbing Materials and Fixtures

Chromium plated brass with cross heads 12mm diameter for basins, where necessary shall be provided with extension pieces.

Bib Taps

Unless otherwise stated, 12mm diameter chromium plated brass with cross heads complete with back plate elbow or wall flange.

Wash Hand Basin

Wash hand basin shall be made of first class vitreous China (recommended LW526J (TOTO) or equivalent)and shall be in accordance with the requirements of BS 1188 or equivalent. The bowl shall be oval in shape with a steep slope to the bottom and with the waste in the center or towards the rear. Waste opening shall have as large a capacity as the waste pipe and shall be protected by a strainer. Pillar cocks, valves, waste couplings, brackets, strainers and other accessories for making the wash basin a complete unit shall be of heavy type best quality, subject to the approval of the Engineer.

Mirror

The mirror shall be silvered back plate glass mirror at least 6mm thick having nominal dimensions of 600mm x 450mm with a shelf combination if not specified in the drawing. Brass screws shall be provided for fixing the shelf above each basin.

Floor Trap

Floor trap shall be of self-cleaning design provided with 35mm water seal. Traps used for waste installation shall be of CI generally in accordance with BS 1291 or equivalent. All waste traps shall have grating or cross bars formed integrally. The grating shall be of suitable design so as not to unduly restrict the flow of waste water.

WC Pan

The squatting type pan shall be of white glazed fire clay (vitreous China) with 100mm. diameter trap of similar material and footrests complying with BS 1125. The surface shall have a glazed finish with minimum of fouling area and a seal depth greater than 50mm. The outlet shall be placed wall back and the pan shall be sufficiently long to prevent urine from splashing out.

The company needs to supply, fit and fix European type glazed porcelain commode with low-down CW868NJ (TOTO), and prepare the base with cement concrete and with wire mesh or rods, if necessary, in all floors including making holes wherever required and mending good the damages and fitting, fixing finishing etc. complete with all necessary fittings and connection approved and accepted by the Engineer-in Charge.

Besides it is required to supply, fit and fix Bangladesh pattern, long pan with foot-rest, C212 Squat 4EV (COTO), made of Vitreous China and preparing the base of pan with cement mortar (1:4) and with wire mesh or rods, if necessary in all floors including making holes wherever required and mending good the damages and fitting, fixing, finishing etc. complete with all necessary fittings and connection approved and accepted by the Engineer-in Charge.

Flushing Cistern

Flushing cistern shall be plastic or white vitreous China complying with BS 1125 and shall be single flushing type, fitted with nylon or brass ball valve to BS 1212 with a plastic float to BS 2456 and connections for 12mm. diameter supply and 20mm. diameter overflow pipes. Flush shall be 38mm. diameter galvanized mild steel pipe. The holes for inlet, outlet and overflow in cistern shall be made water tight by inserting rubber washers or other means.

Soap Tray

It is required to supply, fit and fix standard size soap tray including making holes in walls and mending good the damages with cement mortar (1:4) etc. all complete approved and accepted by the Engineer-in Charge.

Gulley and Traps

Jointing of gulley and traps shall be as described for the pipes of the same material. Gulley gratings, unless otherwise specified shall be coated cast iron.

Soil Pipe and Wastewater Pipes

All drains shall be laid in straight lines and to even gradients to the levels stated. Unless otherwise stated the drains shall be laid to gradients within the following limits:

100mm. diameter	- Maximum gradient - in 30
Maximum gradient	- in 60
150mm. diameter	- Maximum gradient - in 50
Maximum gradient	- in 120

Ventilation

Each main soil drainage run shall be provided with ventilating pipes in positions in accordance with the relevant by laws and direction of the Engineer.

Soak way

It shall be constructed as per drawing.

Rain Water Pipe

Rain water pipes shall be PVC and of approved make.

Others

Colored glassed shelf, toilet paper holder, hooks, stop cock, pillar cock, socket, Junction, Tee, screws, bracket etc. as specified in the BoQ and drawing.

8.14.2 Water Connection to Building from Water Mains

The work shall include the installation of galvanized steel pipe system to supply water from the water supply main to the pumping station toilet block through a water tank if any and all appurtenant work entirely to the satisfaction of the Engineer.

All joints between galvanized steel pipes and fittings shall be made with approved Teflon pickings. When pipes are cut and screwed the length of thread shall be sufficient to ensure that the full length of the threaded portion of the fitting is utilized.

Trenches shall not be backfilled until the service have been inspected and passed by the Engineer. The services shall be tested at 40 meters head or at 50% above the working pressure whichever is greater and any leakage made good before the trench is backfilled.

8.14.3 Measurement

Plumbing, drainage and waste systems and all work in correction therewith shall be valued by the measurement of only such items as are included in the Bill of Quantities. The cost of plumbing, drainage and waste systems not itemized in the Bill of Quantities shall deem to include elsewhere in the contract rates to cover all the contractor's obligation under the contract.

8.14.4 As-built Drawings

After completion of all work as in contract, the contractor shall prepare as build drawings and shall submit three copies of same to the Engineer.

8.15 Electrical Works

8.15.1 Lighting & Small Power Installation

The general layout for all lighting fittings, general purpose power outlets, ceiling fans, exhaust fans etc. are shown on the drawings. The positions are given to indicate approximate location only. The exact positions for ceiling fittings shall comply with the ceiling grid liners and panels. Other positions shall be verified with the Engineer on site.

8.15.1.1 Light Fittings

The types of light fittings for the work are shown on the drawings. The contractor shall be responsible for the supply and installation of the all the various types of lighting fittings. Lighting fittings shall be complete with starters, chokes, sockets, power factor correcting capacitors tubes, lamps, shades, reflectors, etc. The Contractor shall also be responsible for the replacement of all the consumable components of the fittings within the warranty period.

Each surface mounted lighting fitting shall terminate at a standard junction box having entries to conduit and shall include connectors of adequate capacity and size for the connection of the number of wires at that point.

Each fitting mounted on suspended ceiling shall have the standard mounting brackets or clips for the type of ceiling in question. The fittings shall include the necessary connectors and heat resistant cable for connection between the fittings and the terminal box. All suspended fittings shall be suitable for servicing and maintenance from the underside of the fittings.
Fittings installed directly to the underside of the non-fireproof ceiling shall be provided with a 12 mm gap between the fittings and the ceiling for ventilation.

All light fittings shall be provided with earthling terminal which shall be connected to the earth continuity lead of the final sub-circuit. Fittings for external use shall be weatherproof and insect proof.

8.15.1.2 Switches

Sub-circuit switches unless otherwise stated shall be single pole quick make and slow break type with solid silver alloy contacts and totally enclosed switch action for flush mounting as required and shall be suitable for indoor and outdoor use. The switches shall be housed in standard galvanized steel boxes complete with conduit knockouts. The switches may be single or multi-gang as required. Switches in mechanical plant rooms shall be metal clad type and suitable for flush or surface mounting as required. Switches for External use shall be Waterproof Switches shall be rated at 5A depending on the connected load on the final sub-circuit. For inductive loads switch rating shall be twice the steady current of loads.

8.15.1.3 Outlet Socket 15A

Switch based outlet sockets shall be to BS 2814 single pole 13A three pins switched shuttered outlets and shall be flush mounted type. Switches shall be quick make slow break type with solid silver alloy contacts having totally enclosed switch action. Outlet sockets shall be flush mounted in galvanized steels boxes to BS 1299 and 1363 with conduit knockouts.

Each 13A outlet sockets shall be mounted at 300mm above finished floor level or 1.5 m high for use above a counter or work bench. Where they are above a work bench or counter, the height may be adjusted by 100 mm.

8.15.1.4 Socket Outlets 5A

Switch based outlet sockets shall be to BS 2814 single pole 5A two pins switched shuttered outlets and shall be flush mounted type. Switches shall be quick make slow break type with solid silver alloy contacts totally enclosed switch action.

8.15.1.5 Plugs

Each 13A outlet sockets shall be complete with an ivory finish moulded plug to BS 1363 complete with color coded fuse to BS 1362. Plugs shall be supplied complete with fuse and handed to the Engineer on the issue of the practical completion certificate of the installation.

8.15.1.6 Lamps

Lamps shall be furnished and installed in all lighting fixtures covered under the Contract. Lamps used for temporary lighting services shall not be used in the final lamping of fixture units.

Lamps for permanent installation shall not be placed in the fixtures until so directed by the Engineer, and this shall be directly before the building areas are handed over.

8.15.1.7 Installation of Material

All wiring, conduits, conduit boxes, drawing-in boxes, junction boxes, saddles, brackets etc. required for the completion of the sub-circuit installation and wiring shall be included in this work. Generally, PVC insulated copper conductors shall be used for the wiring of lighting and general purpose outlets and in concealed conduits.

8.15.1.8 Measurement

The electrical installation and all work in connection therewith shall be valued by the measurement of only such items as are included in the Bill of Quantities. The cost of any electrical installation not itemized in the Bill of Quantities shall be deemed to be included elsewhere in the contract rates to cover the entire contractor's obligations under the contract.

Section 9. Drawings

(as attached)