
VOLUME 1A

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Section - I

INSTRUCTIONS TO BIDDERS

Notes:

Instructions to Bidders shall be read in conjunction with Bidding Data. Matters relating to the performance of the Contractor, payments under the Contract, or matters affecting the risks, rights, and obligations of the parties under the Contract are not included in this Section, but are given in Section III – Conditions of Contract, Volume 1 and the Contract Data under Section IV, Volume 2

Instructions to Bidders will not be a part of the Contract and will cease to have effect once the Contract is signed.

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INSTRUCTIONS TO BIDDERS

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Instruction to Bidders

A. General

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| 1. Scope of Bid | 1.1 | The Employer as defined in the Bidding Data, hereinafter “the Employer”, wishes to receive Bids for the Design, Construction, Commissioning and Remedying Defects of Works specified in the Bidding Data, and as described in the Employer’s Requirements (Section VI), hereinafter referred to as “the Works”. |
| | 1.2 | Successful bidder will be expected to complete the Works within the Time for Completion specified in the Bidding Data. If the Contractor fails to complete the Works during that period the Contractor shall pay delay damages to the Employer as specified in Bidding Data. The Defects Notification Period for remedying Defects is given in Bidding Data |
| 2. Source of Funds | 2.1 | Works will be financed by the source given in Bidding Data. |
| 3. Eligible Bidders | 3.1 | All bidders shall be registered with the Construction Industry Development Authority (CIDA), under the grade and specially given in Bidding Data. However, in the case of a joint venture the partner in charge shall be registered with CIDA, under the grade and specialty given in Bidding Data. |
| | 3.2 | All bidders shall hold a valid membership of the National Construction Association of Sri Lanka (NCASL) at the time of collection of bidding documents and at the time of award as well. |
| | 3.3 | All bidders shall confirm in Section VII, Form of Bid, a statement that the Bidder (including all members of a joint venture and sub-contractors) is not associated directly or indirectly in the preparation of the bidding documents. |
| | 3.4 | A foreign bidder may submit a bid only if specified in Bidding Data. |
| 4. Qualification of the Bidders | 4.1 | All bidders shall include the following information and documents with their Bid in Section VIII |
| | (a) | Certified copies of original documents defining the constitution or legal status, place of registration, and principle place of business; written power of attorney of the signatory to the bid to commit the Bidder; |
| | (b) | In the event that pre-qualification of bidders is a requirement, only bids from those who satisfy the pre-qualification criteria will be considered for award of Contract. These qualified bidders should submit with their bids any information updating their original pre-qualification applications or, alternatively, |

confirm in their bids that the information submitted with their applications for pre-qualification has not materially changed from the date of submission. The update or confirmation should be provided in Section VIII

- (c) In the event that pre-qualification of bidders was not a requirement, unless otherwise stated in the Bidding Data, all bidders shall include the following information and documents as a minimum with their bids in Section VIII;
 - (i) reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past three years.
 - (ii) evidence of adequacy of working capital for this Contract (access to line(s) of credit and availability of other financial resources);
 - (iii) total monetary value of construction work preformed for each of the last five years;
 - (iv) experience in works of a similar nature (design works and construction works) and size for each of the last five years, and details of work under way or contractually committed;
 - (v) major items of construction equipment proposed to carry out the Contract;
 - (vi) qualifications and experience of key Design Team, and Site Management and Technical Personnel proposed for the Contract;
 - (vii) information regarding any litigation, current or during the last five years, in which the Bidder or any partners of a joint venture are involved, the parties concerned, and disputed amount;
 - (viii) proposals for subcontracting components of the Works amounting to more than 10 percent of the contract amount; and
 - (ix) Proposals for work methods, staffing and schedules, in sufficient details to demonstrate the adequacy of the Bidder's proposal to Employer's Requirements and the completion time described in the bidding documents.
- 4.2 Bids submitted by a joint venture of two or more firms as partners shall comply with the following requirements;
 - (a) the Bid shall include all the information listed in Sub-Clause 4.1 above for each joint venture partner;

- (b) the Bid and, in case of successful bid, the Contract Agreement shall be signed so as to be legally binding on all partners;
- (c) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
- (d) one of the partners shall be nominated as being a partner in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the joint venture;
- (e) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge; and
- (f) a copy of the agreement entered into by the joint venture partners shall be submitted with the Bid.

4.3 To qualify for the award of the Contract, bidders shall meet the following minimum qualifying criteria

- (a) average annual volume of construction work performed in last five years shall be at least the amount specified in Bidding Data;
- (b) experience as prime contractor in the construction of at least one contract of a nature and complexity equivalent to the Works over the last 10 years (to comply with this requirement, works cited should be at least 70 percent complete);
- (c) proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment if any specified in Bidding Data;
- (d) a Contract Manager with five years' experience in Works of an equivalent nature and volume, including no less than three years as Manager;
- (e) each of the proposed design team member should have minimum qualifications and experience if given in the Employer's Requirements;
- (f) each of the proposed design team member should have carried out designs within the last 5 years, of at least two works of a nature and complexity equivalent to the task for which they are proposed for;
- (g) liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of not less than the amount specified in Bidding Data; and
- (h) a consistent history of litigation or arbitration awards against the Bidder or any partner of a Joint Venture may result in disqualification.
- (i)

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| 4.4 | | The construction volume for each of the partners of a joint venture shall be added together to determine the Bidder's compliance with the minimum qualifying criteria of Sub-Clause 4.3 (a), (b) and (g); however, for a joint venture to qualify, each of its partners must meet at least 25 percent of minimum criteria 4.3 (a), (b) and (g); and the partner in charge at least 40 percent of those minimum criteria. Failure to comply with this requirement will result in rejection of the joint venture's Bid. Subcontractors' experience and resources will not be taken into account in determining the Bidder's compliance with the qualifying criteria. |
| 5. | One Bid per Bidder | 5.1 Each bidder shall submit only one Bid, either by himself or as a partner in a joint venture. A bidder who submits or participates in more than one Bid will be disqualified. |
| 6. | Cost of Bidding | 6.1 Bidder shall bear all costs associated with the preparation and submission of its bid, and the Employer will in no case be responsible or liable for those costs, regardless of conduct or outcome of the bidding process. |
| 7. | Site Visit | <p>7.1 The bidders are advised to visit and examine the site of works and its surroundings and obtain for himself on its own responsibility all information that may be necessary for preparing the Bid and entering into a Contract for Design and Construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.</p> <p>7.2 The Employer may conduct a Site visit concurrently with the pre-bid meeting referred to in Clause 17.</p> |

B. Bidding Documents

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| 8. | Content of Bidding Documents | 8.1 The Bidding documents are those stated below, and should be read in conjunction with any addenda issued in accordance with Clause 10: |
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Volume 1 A :

Section I	Instructions to Bidders
Section III	Conditions of Contract
Section V	Standard Forms

Volume I B:

Invitation to Bid

Section II	Bidding Data
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Section IV	Contract Data
Section VI	Employer’s Requirements
Section VII (a)	Form of Bid
Section VIII (a)	Schedules – related to General Information (“A” Schedules)

Volume 2

Section VII(b)	Form of Design/Technical Proposal
Section VIII (b)	Schedules – related to design & technical proposal (“B” Schedules)
Section IX	Drawings (if any)

Volume 3

Section VII (c)	Form of Price Proposal
Section VIII (c)	Schedule – related to Price Proposal (“C” Schedules)

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| 9. Clarification of Bidding Documents | 9.1 | A prospective bidder requiring any clarification of the Bidding Documents may notify the Employer in writing or by facsimile at the Employer’s address indicated given in the Bidding Data. The Employer will respond to any request for clarification, which he receives earlier than 14 Days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the inquiry but without identifying its source. |
| 10. Amendment of Bidding Documents | 10.1 | At any time prior to the deadline for submission of Bids, the Employer may amend the bidding documents by issuing addenda. Employer may amend the bidding documents by issuing addenda. |
| | 10.2 | Any addendum thus issued shall be part of the bidding documents pursuant to Sub Clause 8.1 and shall be communicated in writing or by facsimile to all those of the purchasers of the bidding documents. Prospective Bidders shall promptly acknowledge receipt of each addendum to the Employer. |
| | 10.3 | To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer shall extend as necessary the deadline for submission of Bids, in accordance with Clause 20. |

C. Preparation of Bids

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| 11. Language of Bid | 11.1 | The Bid, and all correspondence and documents related to the Bid exchanged by the Bidder and the Employer shall be written in English language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in English language, in which case, for purposes of interpretation of the Bid, the English translation shall prevail. |
| 12. Documents Comprising the Bid | 12.1 | The bid submitted by the bidder shall comprise the documents described under Clause 19 and any other information requested in the Employer's Requirements. |
| 13. Bid Prices | 13.1 | Unless stated otherwise in the bidding documents, the Contract shall be for the whole Works as described in Sub-Clause 1.1 based on the lump sum price submitted by the Bidder. |
| | 13.2 | Depending on the Bidder's proposal, the Bidder shall fill all relevant items in the Price Schedules required for the Works. Bidders may add any new activities items which are not included in the price schedules. But are needed to complete the Works in accordance with the bidder's proposal and carry them to the Bid Price., Similarly Bidders may delete items which are included in the Price Schedule but are not required in accordance with the bidder's proposals. |
| | 13.3 | All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 Days prior to the deadline for submission of Bids, shall be included Bid price. |
| | 13.4 | Unless otherwise provided in the Bidding data, the lump sum price quoted by the Bidder, shall nor be subjected to adjustment during the performance of the Contract. |
| 14. Currencies of Bid and payment | 14.1 | The prices shall be quoted by the bidder entirely in Sri Lanka Rupees unless otherwise provided in the Bidding Data. |
| 15. Bid Validity | 15.1 | Bids shall remain valid for the period stipulated in the Bidding Data. |
| | 15.2 | In exceptional circumstances, prior to expiry of the original bid Validity period, the Employer may request from the Bidder to extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing or by facsimile. A bidder may refuse the request without forfeiting its Bid security. A Bidder agreeing to the request will not be required or permitted to modify its Bid, but will be required to extend the validity of its Bid security for the period of the extension, and in compliance with Clause 16 in all |

respects.

- 16. Bid Security**
- 16.1 The bidder shall furnish, as part of its Bid, a Bid security in the amount stipulated in the Bidding Data.
- 16.2 The bid security shall at the Bidder's option, be in the form of a certified cheque, letter of credit or a guarantee from a reputed bank or insurance bond from a company located in Sri Lanka or from an acceptable bonding organization in Sri Lanka. The format of the Bid security should be in accordance with the specimen form of Bid security included in the bidding document or another form acceptable to the Employer. Bid security shall be valid for the period given in the Bidding Data.
- 16.3 Any bid not accompanied by an acceptable Bid security shall be rejected by the Employer as non-responsive. The Bid security of a joint venture shall be issued so as to commit fully all partners to the proposed joint venture.
- 16.4 The bid securities of unsuccessful Bidders will be returned as promptly as possible, but not later than 28 days after the expiration of the period of Bid validity.
- 16.5 The Bid security of the successful Bidder will be returned when the Bidder has signed the agreement and furnished the required Performance Security.
- 16.6 The Bid Security may be forfeited :
- (a) if a bidder withdraws its Bid, except as provided in Sub Clause 22.2 ;
 - (b) if the bidder does not accept the correction of its Bid Price, Pursuant to Sub-Clause 28.1; or
 - (c) in the case of a successful Bidder, if he fails within the specified time limit to:
 - (i) sign the agreement; or
 - (ii) furnish the required performance security.
- 17. Pre-Bid Meeting**
- 17.1 The bidder's designated representative(s) is invited to attend a pre-bid meeting which, if convened, will take place at the venue and time stipulated in the Bidding Data.
- 17.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 17.3 The Bidders are requested, as far as possible, to submit any questions in writing or by facsimile, to reach the Employer not later than one week before the meeting. It may not be practicable at the meeting to answer questions received late. All questions raised at the pre-bid meeting or under Clause 9.0 will be responded to in writing by the Employer.

- 18. Format and Signing of Bid**
- 18.1 The bidder shall prepare one original of the documents comprising the Bid as described in Clause 19 of these Instructions to Bidders. In addition, the Bidders shall submit a copy of the Bid, as described in Clause 19. In the event of discrepancy between them, the original shall prevail. The bid shall be sealed in accordance with Clause 19.
- 18.2 The original and the copy of the Bid shall be signed by a person or persons duly authorized to sign on behalf of the Bidder. All pages of the Bid where entries or amendments have been made shall be initialed by the person or persons signing the Bid.
- 18.3 The bid shall contain no alterations, omissions, or additions, unless such corrections are initialed by the person or persons signing the Bid.

D. Submission of Bids

- 19. Sealing and Marking of Bids**
- 19.1 The bidder shall submit the Bid under **three** separately sealed envelopes as follows:
- (a) The first envelope shall be clearly marked “**ENVELOPE 1 – GENERAL INFORMATION**” and shall include separately sealed inner envelope of the original and copy of the Preliminary Information;
 - (b) The second envelope shall be clearly marked “**ENVELOPE 2 – DESIGN / TECHNICAL PROPOSAL**” and warning “**DO NOT OPEN, EXCEPT IN THE PRESENCE OF THE EVALUATION COMMITTEE**” and shall include separately sealed inner envelope of the original and copy of the Design / Technical Proposal; and
 - (c) The third envelope shall be clearly marked “**ENVELOPE 3 – PRICE PROPOSAL**” and warning “**DO NOT OPEN, EITHER WITH THE GENERAL INFORMATION OR DESIGN / TECHNICAL PROPOSAL**” and shall include separately sealed inner envelope of the original and copy of the Price Proposal;
- 19.2 The Bidder shall seal the original and the copy of the Preliminary Information in two separate covers, duly marked as “ORIGINAL OF GENERAL INFORMATION” and “COPY OF GENERAL INFORMATION”. The two covers shall then be sealed as inner covers in the Envelope 1 described under Sub- Clause 19.1(a) above. The original cover shall include the originals and the copy shall include copies of the followings:

- (i) Volume 1 A of the Bidding Document;
- (ii) Invitation to Bid;
- (iii) Section II – Bidding Data;
- (iv) Section IV – Contract Data;
- (v) Section VI – Employer’s Requirement;
- (vi) Power of Attorney for the signatory to the bid;
- (vii) Duly filled and signed Form of Bid;
- (viii) Bid security;
- (ix) Duly filled “A” schedules – “General Information” ;
- (x) Other information listed in Bidding Data; and
- (xi) Any other information, bidder may wish to include

19.3 The Bidder shall seal the original and the copy of the Design/ Technical Proposal in two separate covers, duly marked as “ORIGINAL of DESIGN / TECHNICAL PROPOSAL “ and “COPY OF DESIGN / TECHNICAL PROPOSAL”. The two covers shall then be sealed as inner covers in the Envelope 2 described under Sub Clause 19.1 (b) above. The original cover shall include the originals and the copy shall include the copies of the followings

- (i) Duly filled and signed Form of Design / Technical Proposals
- (ii) Duly filled “B” Schedules – “Comments and suggestions on Employer’s Requirements” (if any)
- (iii) Contractors proposals
- (iv) Drawings (if any)
- (v) Other information listed in the Bidding data; and
- (vi) Any other information, bidder may wish to include

19.4 The Bidder shall seal the original and the copy of the Price Proposal in two separate covers, duly marked as “ORIGINAL OF PRICE PROPOSAL” and “COPY OF PRICE PROPOSAL”. The two covers shall then be sealed as inner covers in the Envelope 3 described under Sub Clause 19.1 (c) above. The original cover shall include the originals and the copy shall include copies of the following:

- (i) Duly filled and signed Form of Price proposal;
- (ii) Duly filled “C” Schedules – “Price Schedules”

- 19.5 All inner and outer envelopes / covers shall:
- (a) be addressed to the Employer at the address provided in the Bidding Data;
 - (b) bear the name and identification number of the Contract as defined in Bidding Data; and
 - (c) Provide a warning as specified in the Sub Clause 19.
- 19.6 In addition to the identification required in Sub Clause 19.5 (b), all inner covers shall indicate the name and address of the Bidder to enable the Bid to be returned unopened.
- 19.7 If the outer is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.
- 20. Deadline of Submission of Bids**
- 20.1 Bids must be received by the Employer at the address specified in Invitation to bid no later than the time and date stipulated in the Bidding Data.
- 20.2 The Employer may, in exceptional circumstances and at its discretion, extend the deadline for submission of Bids by issuing an addendum in accordance with Clause 10, in which case all rights and obligations of the Employer and the Bidders previously subject to the original deadline as extended.
- 21. Late Bids**
- 21.1 Any Bid received by the Employer after the deadline for submission of Bids prescribed in Clause 20 will be returned unopened to the Bidder.
- 22. Modification, Substitution, and Withdrawal of Bids**
- 22.1 The Bidder may modify, substitute, or withdraw its Bid after Bid submission, provided that written notice of the modification or withdrawal is received by the Employer prior to the deadline for submission of Bids.
- 22.2 The Bidder's modification, substitution or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with the provisions of Clause 18 and 19, with the outer and inner envelopes additionally marked "Modification to Envelope 1 – General Information" and / or "modification to Envelope 2 – Design / Technical Proposal" and / or "Modification to Envelope 3 – Price Proposal" or "substitute" or "withdrawal" as appropriate.
- 22.3 No Bid may be modified by the Bidder after the deadline for submission of Bids.
- 22.4 Withdrawal of a Bid during the interval between the deadline for submission of Bids and expiration of the period of Bid validity may result in the forfeiture of the Bid security pursuant to Sub-Clause 16.

E Bid Opening and Evaluation

- 23. Bid Opening**
- 23.1 The Employer will open the envelope marked, 'Envelope 1 – General Information', including withdrawals and modifications made to envelope marked 'Modification to Envelope 1 – General Information' pursuant to Clause 22, in the presence of Bidders' designated representatives who choose to attend, at the time, date, and location stipulated in the Invitation to Bid. The Bidder's representatives who are present shall confirm their attendance sheet.
- 23.2 Envelopes marked "withdrawal" shall be opened first and the name of the Bidder shall be read out. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause 22 shall not be opened.
- 23.3 The Bidders' names, presence (or absence) of Modification to Bid and withdrawals, the presence (or absence) of Bid security, and any such other details as the Employer may consider appropriate, will be announced by the Employer at the opening. Subsequently, all envelopes marked "Modification to Envelope 1 – General Information" shall be opened and the submissions therein read out in appropriate details. No Bid shall be rejected at Bid opening except for late Bids pursuant to Clause 21.
- 23.4 The envelopes marked 'Envelope 2 – Design / Technical Proposal' and 'Modification to Envelope 2 – Design / Technical Proposal' will be opened by the evaluators with the commencement of evaluation of envelopes marked 'Envelope 2 – Design/ Technical Proposal'.
- 23.5 The envelopes marked 'Envelope 3 – Price Proposal' will be opened after the completing the evaluation of envelope marked 'Envelope 2- Design / Technical Proposal', in the manner described in Sub Clause 27.6 and Sub Clause 27.7.
- 24. Process to be Confidential**
- 24.1 Information relating to the examination, clarification, evaluation and comparison of Bids, and recommendations for the award of a Contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.
- 25. Clarification of Bids**
- 25.1 To assist in the examination, evaluation and comparison of Bids, the Employer may, at its discretion, ask any Bidder for clarification of its Bid, including breakdowns of prices. The request for clarification and the response shall be in writing or by facsimile, but no change in the price or substance of the Bid shall be sought, offered, or permitted.

- 26. Examination of Bids and Determination of Responsiveness**
- 26.1 Prior to the detailed evaluation of Bids, the Employer will evaluate the information submitted with the envelope marked ‘Envelope 1 – General Information’ to determine whether each Bid (a) meets the eligibility criteria; (b) has been properly signed; (c) is accompanied by the required securities; (d) is substantially responsive to the requirements of the Bidding document; and (e) provides any clarification and/or substantiation that the Employer may require to determine responsiveness pursuant to Sub Clause 26.2
- 26.2 A substantially responsive Bid is one that conforms to all the terms, conditions, and specifications of the bidding document without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the bidding document, the Employer’s rights or the Bidder’s obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.
- 26.3 If a Bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.
- 27. Evaluation and Comparison of Bids**
- Note** Two options, Option A and Option B are given below. The applicable option for the bid is given in Bidding data. The evaluation and comparison will be done accordingly. If no option is selected in the Bidding Data, evaluation and comparison will be done following Option A.

OPTION A

- 27.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause 26.
- 27.2 Evaluators of envelope marked ‘Envelope 2 – Design / Technical Proposal’ shall have no access to the envelope marked ‘Envelope 3 – Price Proposal’ until the technical evaluation, is concluded. The Employer evaluates the Envelope 2 – Design / Technical Proposals on the basis of their responsiveness to the Employer’s Requirements, applying the evaluation criteria, and point system specified in Sub Clause 27.3 and 27.4. The Employer will also use the appropriate information submitted in the envelope marked ‘Envelope 1 – General Information’ in allocating points.

27.3 During the evaluation of Envelope 2, the Employer will determine whether the Bidders are qualified and whether technical aspects are substantially responsive to the requirements set forth in the bidding documents. In order to reach such a determination, the Employer will examine the information supplied by the Bidders, and other requirements in the bidding documents, taking into account the following factors (but not limited to):

(a) Qualification

- (i) The determination will take into account the Bidder's financial and production capabilities and past performance, it will be based upon an examination of the documentary evidence of the Bidder's qualification submitted by the Bidder, as well as such other information as the Employer deems necessary and appropriate;
- (ii) The Employer will examine whether the bidder is satisfying the minimum criteria given under Sub Clause 4.3
- (iii) An affirmative determination under 27.3 (a) (ii) above, will be a prerequisite for the Employer to continue with the evaluation of the Envelope 2; a negative determination will result in rejection of the Bid.

(b) Technical

The determination will take into account the Bidder's Design / Technical Proposal with special attention given to the following and will assign a technical score based on the point system and the criteria given in Sub Clause 27.4

- (i) Overall completeness and compliance with the Employer's requirements; and deviations / Shortcomings from or the Employer's requirements
- (ii) The design team
- (iii) Work plan and methodology
- (iv) Compliance with the time schedule

27.4 The following point system will be used for evaluation of the Design / Team and the Design / Technical Proposal:

Criteria		Maximum Points	Minimum Required
(i)	Specific experience of the bidder or the composition of the Design Team related to the design of proposed Works	10	05
(ii)	Overall compliance with the requirements of the bidding documents	10	05
(iii)	Experience of the key Member of the Design Team	30	20
(iv)	Work plan and time Schedules	15	08
(v)	Preliminary Design approach	25	13
(vi)	Any other improvements to the Employer's Requirements, suggested by the Bidder	10	-
Total		100	65

The following Sub Criteria will be used in assigning points to (i), (ii), (iv) and (v) above

- (a) Satisfactory - 50%
- (b) Good - 75%
- (c) Very Good - 100%

For allocating points for (iii) above, each key member of the Design Team will be assigned a weighting in accordance with their roles for the assignment. Subjected to the weightings assigned each key staff member will be evaluated using the following Sub Criteria.

- (a) General qualifications - 25%
- (b) Total experience - 25%
- (c) Experience related to the task - 50%

- 27.5 Each responsive Design / Technical proposal will be given a technical score as above. A Bid shall be rejected at this stage if it does not respond to important aspects of the Employer's Requirements or if it fails to achieve an overall minimum of 65 points together with the minimum given against each criterion.

- 27.6 After the evaluation of Envelope 2 is completed, the Employer shall notify those Bidders whose Design/ Technical proposal did not meet the minimum qualifying mark or were considered non responsive to the Employer's Requirements, indicating that their envelope marked 'Envelope 3 – Price Proposal' will be returned unopened after completing the selection process. The Employer shall simultaneously notify the Bidders that have secured the minimum qualifying mark, indicating the date and time set for opening the envelope marked 'Envelope 3 – Price Proposal'. The notification may be sent by registered letter, or facsimile.
- 27.7 The Envelope 3 shall be opened in the presence of the Bidders, representatives who choose to attend. The name of the bidder, the Bid prices together with any discounts offered shall be read aloud and recorded when the envelopes marked 'Envelope 3 – Price Proposal' are opened.
- 27.8 In evaluating the Price Proposal, the Employer will determine for each Bid the Evaluated Bid Price by adjusting the Bid Price as follows:
- (a) excluding Provisional Sums and the provision, if any but including Day work, where priced competitively;
 - (b) correct the arithmetical errors in pursuant to Clause 28;
 - (c) Making an appropriate adjustment on sound technical and / or financial grounds for any other quantifiable acceptable variations, deviations or alternative offers;
 - (d) Applying any discounts offered by the Bidder.
- 27.9 The Employer reserves the right to accept or reject any variation, deviation or alternative offer. Variations deviations, alterative offers and other factors that are in excess of the requirements of the bidding document shall not be taken into account in Bid evaluation.
- 27.10 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.
- 27.11 If the Bid, which results in the lowest Evaluated Bid Price, is seriously unbalanced or front loaded in relation to the Employer's estimate of the items of work to be performed under the Contract, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Price Schedule, 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 Employer may require that the amount of the Performance Security set forth in Clause 32 be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

OPTION B

- 27.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause 26.
- 27.2 Evaluators of envelope marked ‘Envelope 2 - Design / Technical Proposal’ shall have no access to the envelope marked ‘Envelope 3 – Price Proposal’ until the technical evaluation, is concluded. The Employer, evaluates the Envelope 2 – Design / Technical Proposals on the basis of their responsiveness to the Employer’s Requirements, applying the evaluation criteria, and point system specified in Sub Clause 27.3 and 27.4
- 27.3 During the evaluation of Envelope 2, the Employer will determine whether the Bidders are qualified and whether technical aspects are substantially responsive to the requirements set forth in the bidding documents. In order to reach such a determination, the Employer will examine the information supplied by the Bidders, and other requirements in the bidding document, taking into account the following factors (but not limited to):
- (a) Qualification
- (i) The determination will take into account the Bidder’s financial and production capabilities and past performance; it will be based upon an examination of the documentary evidence of the Bidder’s qualification submitted by the Bidder, as well as such other information as the Employer deems necessary and appropriate;
- (ii) The Employer will examine whether the bidder is satisfying the minimum criteria given under Sub Clause 4.3
- (iii) An affirmative determination under 27.3 (a) ii above, will be a prerequisite for the Employer to continue with the evaluation of the Envelope 2; a negative determination will result in rejection of the Bid.

(b) Technical

The determination will take into account the Bidder's Design / Technical Proposal with special attention given to the following and will assign a technical score based on the point system and the criteria given in Sub Clause 27.4

- (i) Overall completeness and compliance with the Employer's requirements; and deviations / Shortcomings from or the Employer's requirements
- (ii) The design team
- (iii) Work plan and methodology
- (iv) Compliance with the time schedule

27.4 The following point system will be used for evaluation of the Design / Team and the Design / Technical Proposal:

Criteria		Maximum Points
(i)	Specific experience of the bidder or the composition of the Design Team related to the design of proposed Works	10
(ii)	Overall compliance with the requirements of the bidding documents	10
(iii)	Experience of the key Members of the Design Team	30
(iv)	Work plan and time Schedules	15
(v)	Preliminary Design Approach	25
(vi)	Any other improvements to the Employer's Requirements, suggested by the Bidder	10
Total		100

The following Sub Criteria will be used in assigning points to (i), (ii), (iv) and (v) above

- (a) Satisfactory - 50%
- (b) Good - 75%
- (c) Very Good - 100%

For allocating points for (iii) above, each key member of the Design Team will be assigned a weighting in accordance with their roles for the assignment. Subjected to the weightings assigned each key staff member will be evaluated using the following Sub Criteria.

- (a) General qualifications - 25%
- (b) Total experience - 25%
- (c) Experience related to the task - 50%

- 27.5 Each responsive Design / Technical proposal will be given a technical score (S_t) as above. A proposal shall be rejected at this stage if it does not respond to important aspects of the Employer's Requirements or if it fails to achieve a minimum overall total of 65 points or if it fails to achieve a minimum of 50% under each criteria, other than criteria vi given in Sub Clause 27.4
- 27.6 After the evaluation of Envelope 2 is completed, the Employer shall notify those Bidders whose Design/ Technical proposal did not meet the minimum qualifying mark or were considered non responsive to the Employer's Requirements, indicating that their envelope marked 'Envelope 3 – Price Proposal' will be returned unopened after completing the selection process. The Employer shall simultaneously notify the Bidders that have secured the minimum qualifying mark, indicating the date and time set for opening the envelope marked 'Envelope 3 – Price Proposal'. The notification may be sent by registered letter, or facsimile.
- 27.7 The Envelope 3 shall be opened in the presence of the Bidders, representatives who choose to attend. The name of the bidder, the Bid prices together with any discounts offered shall be read aloud and recorded when the envelopes marked 'Envelope 3 – Price Proposal' are opened.
- 27.8 In evaluating the Price Proposal, the Employer will determine for each Bid the Evaluated Bid Price by adjusting the Bid Price as follows:
- (a) excluding Provisional Sums and the provision, if any but including Day work, where priced competitively;
 - (b) correct the arithmetical errors in pursuant to Clause 28.
 - (c) Making an appropriate adjustment on sound technical and / or financial grounds for any other quantifiable acceptable variations, deviations or alternative offers.
 - (d) Applying any discounts offered by the Bidder.
- 27.9 The Bid with lowest evaluated price (F_m) will be given a financial score (S_f) of 100 points. The financial scores (S_f) of the other Bid process (F) will be computed as follows:
$$S_f = 100 \times F_m / F$$

- 27.10 Bids will be ranked according to their combined score (S) using weights DT% for Design / Technical proposal as given in Bidding Data; and P % for Evaluated Bid Price as given in Bidding Data;

$$S = S_t \times DT\% + S_f \times P\%$$
- 27.11 The Bidder achieving the highest combined Design / Technical and financial score will be considered as the best evaluated Bidder.
- 27.12 The Employer reserves the right to accept or reject any variation, deviation or alternative offer. Variations, deviations, alternative offers and other factors that are in excess of the requirements of the Bid documents shall not be taken into account in Bid evaluation.
- 27.13 The estimated effect of the price adjustment provisions of Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.
- 27.14 If the Bid, which results in the lowest Evaluated Bid Price, is seriously unbalanced or front loaded in relation to the Employer's estimate of the items of work to be performed under the Contract, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Price Schedule, 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 Employer may require that the amount of the Performance Security set forth in Clause 32 be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

28 Correction of Errors

- 28.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
- (a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
 - (b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern, and the unit rate will be corrected.

- (c) if the bid price changes by the above procedure, the amount stated in the Form of Bid shall be adjusted with the concurrence of the bidder and shall be considered as binding upon the bidder.
- (d) if the bidder does not accept the corrected amount of bid, its bid shall be rejected and the bid security shall be forfeited or bid security declaration shall be executed in accordance with sub clause 16.6 (b)

F Award of Contract

29 Award

29.1 (If Option A under clause 27 is applicable)

Subject to Clause 30, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding document in accordance with Clause 26.1, has achieved minimum points given under Sub Clause 27.5 for Design and Technical Proposal, and who has offered the lowest Evaluated Bid Price, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of Clause 3; and (b) qualified in accordance with the provisions of Clause 4.3

29.1 (If Option B under clause 27 is applicable)

Subject to Clause 30, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the Bidding documents in accordance with Clause 26.1, has achieved minimum points given under Sub Clause 27.5 for Design and Technical Proposal, and has achieved the highest combined technical and financial score in accordance with Sub Clause 27.10, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of Clause 3; and (b) qualified in accordance with the provisions of Clause 4.3

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

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

31. Notification of Award

31.1 Prior to expiration of the period of bid validity prescribed by the Employer, the Employer will notify the successful Bidder by registered letter that its Bid has been accepted. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") shall specify the sum which the

Employer will pay the Contractor in consideration of the design, execution and completion of the Works and the remedying of any defects therein by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the “Initial Contract Price”).

- 31.2 The Letter of Acceptance will constitute the formation of the Contract.
 - 31.3 The agreement will incorporate the Memorandum of Understanding if any, between the Employer and the successful Bidder, and shall be signed by the Employer and the successful bidder.
 - 31.4 After issuing the Letter of Acceptance, the Employer will send the Bidder the Agreement in the form provided in the bidding documents, incorporating all agreements between the parties.
 - 31.5 Upon the furnishing by the successful bidder of the performance security, the Employer will promptly notify the other bidders that their bids have been unsuccessful.
 - 31.6 The Employer shall notify the successful bidder the date, time and venue for entering into executing the contract agreement.
- 32. Performance Security**
- 32.1 Within 14 Days after receipt of the Letter of Acceptance, the successful Bidder shall furnish to the Employer a Performance Security in the amount specified in the Bidding Data in the form given in the Bidding Data or some other form acceptable to the Employer.
- 33. Advance Payment and Security**
- 33.1 The Employer will provide an Advanced Payment as stipulated in the Conditions of Contract, subject to a maximum amount of 20% of the Initial Contract Price, within 14 Days of the Contractor submitting an acceptable guarantee and upon submission of Performance Security.
- 34 Payment to the Contractor**
- 34.1 The payments made to the Contractor will be subjected to a deduction for retention, calculated by applying the percentage of retention stated in Bidding Data, until the amount so retained reaches the limit of retention stated in Bidding Data.
 - 34.2 No Interim Payment will be made to the Contractor is the value of the Interim Certificate is less than the amount stated in the Bidding Data.

- 35. Adjudicator** 35.1 The Employer proposes the person named in the Bidding Data to be appointed as Adjudicator under the Contract. If the bidder disagrees with this proposal, the bidder should so state in the Bid. Then the Adjudicator shall be appointed by the Appointing Authority designated in the Bidding Data at the request of either party.
- In any event the Adjudicator shall be a person not associated with the project directly or indirectly and who could demonstrate impartiality and independence in his functions.

Section - III

CONDITIONS OF CONTRACT

Conditions of Contract shall be read in conjunction with Contract Data

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Conditions of Contract

1.0 General Provisions

1.1 Definitions

In the Conditions of Contract ("these Conditions"), which include Contract Data and these Conditions, the following words and expressions shall have the meanings stated.

1.1.1

1.1.1.1 **“Contract”** means the Contract Agreement, the Letter of Acceptance, the Form of Bid the Form of Design/Technical Proposal, the Form of Price Proposal, these Conditions, Contract Data, the Employers Requirements, the Schedules, and the further documents (if any which are listed in the Contract Agreement or in the Letter of Acceptance.

1.1.1.2 **“Contract Agreement”** means the contract agreement (if any) referred to Sub-Clause 1.6 (*Contract Agreement*).

1.1.1.3 **“Letter of Acceptance”** means the letter of formal acceptance, signed by the Employer, including any annexed memoranda comprising agreements between and signed by both Parties.

1.1.1.4 **“Contract Data”** means the completed pages entitled contract data, which forms part of the conditions- of contract.

1.1.1.5 **“Employer's Requirements”** means the document entitled employer's requirements, as included in the Contract, and any additions and modifications to such document in accordance with the Contract. Such document specifies the purpose, scope, and/or design and/or other technical criteria, for the Works.

1.1.1.6 **“Schedules”** means the document(s) entitled schedules, completed by the Contractor and submitted with the Bid, as included in the Contract. Such document may include data, lists and schedules of payments and/or prices.

1.1.1.7 **“Contractor's Proposal”** means the document entitled contractor's proposal, which the Contractor submitted with the Bid, as included in the Contract. Such document may include the Contractor's preliminary design.

1.1.1.8 **“Bid”** means the form of bid and all other documents, which the Contractor submitted with the bid, as included in the Contract.

1.1.2 Parties and Persons

1.1.2.1 **“Party”** means the Employer or the Contractor, as the context requires

1.1.2.2 **“Employer”** means the person named as employer in the Contract Data and the legal successors in title to this person.

1.1.2.3 **“Contractor”** means the person(s) named as contractor in the Bid accepted by the Employer and the legal successors in title to this person(s).

1.1.2.4 The **Engineer** is the person named in the Contract Data (or any other competent person appointed by the Employer and notified to the Contractor) who is responsible for administering and supervising the execution of the work. Such person may be an engineer, architect or any other technical person. In the absence of such appointment the Employer himself.

1.1.2.5 **“Contractor's Representative”** means the person named by

the Contractor in the Contract or appointed from time to time by the Contractor under Sub-Clause 4.3 (*Contractor's Representative*), who act on behalf of the Contractor.

- 1.1.2.6 **“Employer's Personnel”** means the Engineer, the assistants referred to in Sub-Clause 3.2 (*Delegation by the Engineer*) and all other staff, labour and other employees of the Engineer and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Engineer, as Employer's Personnel.
- 1.1.2.7 **“Qualified Designer”** means a corporate member of respective national professional body and/or be a professional registered with the respective national registration board (if any).
- 1.1.2.8 **“Contractor's Personnel”** means the Contractor's Representative and all personnel whom the Contractor utilizes on Site, who may include the staff labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.
- 1.1.2.9 **“Subcontractor”** means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.
- 1.1.2.10 The **“Adjudicator”** is the person appointed jointly by the Employer and the Contractor or by the appointing authority in accordance with sub-clause 19.2 (*Disputes*) or sub-clause 19.4 (*Replacement of Adjudicator*), to mediate in disputes in the first instance, as provided for in Clause 19.0 hereunder.
- 1.1.3.1 **“Base Date”** means the date 28 days prior to the latest date for submission of the bid.
- 1.1.3.2 **“Start Date”** means the date notified under Sub-Clause 8.1 (*Commencement of Works*),
- 1.1.3.3 **“Time for Completion”** means the time for completing the Works or a Section (as the case may be) under Sub-Clause 8.2 (*Time for Completion*) as stated in the Contract Data with any extension under Sub-Clause 8.4 (*Extension of Time for Completion*), calculated from the Start Date.
- 1.1.3.4 **“Tests on Completion”** means the tests which are specified in the Contract or agreed by both Parties or instructed as a variation, and which are carried out under Clause 9 (*Tests on Completion*) before the Works or a Section (as the case may be) are taken over by the Employer.
- 1.1.3.5 **“Taking-Over Certificate”** means a certificate issued under Clause 10 (*Employer's Taking Over*).
- 1.1.3.6 **“Tests after Completion”** means the tests (if any) which are specified in the Contract and which are carried out under Clause 12 (*Tests after Completion*) after the Works or a Section (as the case may be) are taken over by the Employer.
- 1.1.3.7 **“Defects Notification Period”** means the period for notifying defects in the Works or a Section (as the case may be) under

1.1.3 Dates, Tests, Periods and Completion

Sub-Clause 11.1 (*Completion of Outstanding Work and Remedying Defect*) as stated in the Contract Data with any extension under Sub-Clause 11.3 (*Extension of Defects Notification Period*), calculated from the date on which the Works or Section is completed as certified under Sub-Clause 10.1" (*Taking Over of the Works and Sections*).

1.1.4

Money and Payments

1.1.3.8 **"Performance Certificate"** means the certificate, issued under Sub-Clause 11.8 (*Performance Certificate*).

1.1.3.9 **"Day"** means a calendar day and **"Year"** means 365 Days.

1.1.4.1 **"Initial Contract Price"** means the amount stated in the Letter of Acceptance for the execution and completion of the Works and remedying of any defects.

1.1.4.2 **"Contract Price"** means the amount stated in the Letter of Acceptance for the execution and completion of the Works and remedying of any defects, subjected to such additions thereto or deductions there from in accordance with the Contract.

1.1.4.3 **"Cost"** means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.

1.1.4.4 **"Final Payment Certificate"** means the payment certificate issued under Sub-Clause 14.11 (*Issue of Final Payment Certificate*).

1.1.4.5 **"Final Statement"** means the statement defined in Sub-Clause 14.9 (*Application for Final Payment Certificate*).

1.1.4.6 **"Interim Payment Certificate"** means a payment certificate issued under Clause 14 (*Contract Price and Payment*) other than the Final Payment Certificate.

1.1.4.7 **"Payment Certificate"** means a payment certificate issued under Clause 14 (*Contract Price and Payment*).

1.1.4.8 **"Provisional Sum"** means a sum (if any), which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.4 (*Provisional Sums*).

1.1.4.9 **"Retention Money"** means the accumulated retention moneys, which the Employer retains under Sub-Clause 14.3 (*Application for Interim Payment Certificates*) and pays under Sub-Clause 14.7 (*Payment of Retention Money*).

1.1.4.10 **"Statement"** means a statement submitted by the Contractor as part of an application, under Clause 14 (*Contract Price and Payment*) for a Payment Certificate.

1.1.5

Works and Goods

1.1.5.1 **"Contractor's Equipment"** means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects.

1.1.5.2 **"Goods"** means Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

1.1.5.3 **"Materials"** means things of all kinds (other than Plant) intended to form or forming part of the Permanent Works,

- including the supply-only materials (if any) to be supplied by the Contractor under the Contract
- 1.1.5.4 **“Permanent Works”** means the permanent works to be designed and executed by the Contractor under the Contract.
- 1.1.5.5 **“Plant”** means the apparatus, machinery and vehicles intended to form or forming part of the Permanent Works.
- 1.1.5.6 **“Section”** means a part of the Works specified in the Contract Data as a Section (if any).
- 1.1.5.7 **“Temporary Works”** means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.
- 1.1.5.8 **“Works”** mean the Permanent Works, Contractor's Documents and the Temporary Works, or either of them as appropriate.
- 1.1.6 Other Definitions**
- 1.1.6.1 **“Contractor's Documents”** means the drawings, calculations, computer programs and other software, specifications, samples, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract; as described in Sub-Clause 5.2 (*Contractor's Documents*).
- 1.1.6.2 **“Employer's Equipment”** means the apparatus, machinery and vehicles (if any) made available by the Employer for the use of the Contractor in the execution of the Works, as stated in the Employer's Requirements; but does not include Plant which has not been taken over by the Employer.
- 1.2 Interpretation**
- In the Contract, except where the context requires otherwise:
- (a) words indicating one gender include all genders;
 - (b) words indicating the singular also include the plural and words indicating the plural also include the singular;
 - (c) provisions including the word “agree”, “agreed” or “agreement” require the agreement to be recorded in writing; and
 - (d) “written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record.
- The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.
- 1.3 Communications**
- Communication between parties shall be effective only when in writing. A notice shall be effective only when it is delivered.
- However if the Engineer purports to issue an instruction otherwise than in writing it shall be of no immediate effect, but shall be confirmed in writing by the Contractor to the Engineer as the case may be within seven (7) Days, and if not dissented from in writing by the Engineer to the Contractor then the Contractor's confirmation shall effect as from the date of confirmation by the Contractor. If the Engineer within seven (7) Days of giving such instruction confirm the same in writing, then the Contractor shall not be obliged to confirm as aforesaid, and the said instruction shall take effect as from date of issue of such instruction.
- The Engineer or the Contractor's Representative may require the other to attend a management meeting in order to review the arrangements for future work. The Engineer shall record the business of management

- meetings and supply copies of the record to those attending the meeting and to the Employer. In the record, responsibilities for any actions to be taken shall be in accordance with the Contract.
- 1.4 Law and Language**
The Contract shall be governed by the laws of Democratic Socialist Republic of Sri Lanka and the language for all purposes for the Contract shall be English.
- 1.5 Priority of Documents**
The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, priority of the documents shall be in accordance with the following sequence:
- (a) the Contract Agreement (if any);
 - (b) the Letter of Acceptance;
 - (c) Memorandum of Understanding (if any);
 - (d) the Form of Bid, Form of Design/Technical Proposal; Form of Price Proposal;
 - (e) the Contract Data;
 - (f) these Conditions of Contract;
 - (g) Contractor's Proposal;
 - (h) the Employer's Requirements;
 - (i) the Schedules; and
 - (j) any other documents forming part of the Contract.
- If the Engineer or Contractor find any ambiguity or discrepancy in the documents, he shall immediately give the other written notice specifying the discrepancy. The Engineer shall issue any necessary clarification or instruction on the ambiguity or discrepancy.
- 1.6 Contract Agreement**
The Contractor shall when called upon to do so enter and execute a Contract Agreement, to be prepared and completed by the Employer. The Contractor shall pay the cost of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement.
- 1.7 Assignment**
Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract However, either Party:
- (a) may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party; and
 - (b) may, as security in favour of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.
- 1.8 Care and Supply of Documents**
Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer three copies of each of the Contractor's Documents.
- The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Employer's Requirements, the Contractor's Documents, and Variations and other communications given under the Contract. The Employer, the Engineer or any other person nominated by the Engineer shall have the right of access to all these documents at all reasonable times.
- If a Party becomes aware of an error or defect of a technical nature in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.
- The Engineer shall have full power and authority to request from the

Contractor from time to time, during the progress of the Works, further documents as shall be necessary for the proper and adequate execution of the Works.

1.9

Errors in the Employer's Requirements

If the Contractor suffers delay and/or incurs Cost as a result of an error in the Employer's Requirements, and an experienced contractor exercising due care would not have discovered the error when scrutinizing the Employer's Requirements under Sub-Clause 5.1 (*General Design Obligations*), the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been so discovered, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

1.10

Employer's Use of Contractor's Documents

As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.

The Contractor shall be deemed (by signing the Contract) to give to the Employer a non-terminable transferable non-exclusive royalty-free license to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This license shall:

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

If the Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes, other than those permitted under this Sub-Clause.

1.11

Contractor's Use of Employer's Documents

As between the Parties, the Employer shall retain the copyright and other intellectual property rights in the Employer's Requirements and other documents made by (or on behalf of) the Employer. The Contractor may, at his cost, copy, use, and obtain communication, of these documents for the purposes of the Contract. They shall not, without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.

1.12

The Contractor shall disclose all such confidential and other information

**Confidential
Details**

1.13

**Compliance with
Laws**

as the Engineer may reasonably require in order to verify the Contractor's compliance with the Contract.

The Contractor shall, in performing the Contract comply with applicable Laws:

- (a) the Employer shall have obtained (or shall obtain) the planning, zoning or similar permission for the Permanent Works, and any other permissions described in the Employer's Requirements as having been (or being) obtained by the Employer; and the Employer shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and
- (b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the Laws in relation to the design, execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so.

2.0 The Employer

2.1

**Right of Access
to the Site**

The Employer shall give the Contractor right of access to, and possession of, all parts of the Site within 14 days from the Letter of Acceptance unless otherwise specified in Contract Data. The right and possession may not be exclusive to the Contractor. If, under the Contract the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Employer's Requirements. However, the Employer may withhold any such right or possession until the Performance Security has been received.

If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

However, if and to the extent that the Employer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

2.2

**Permits,
Licenses or
Approvals**

The Employer shall (where he is in a position to do so) provide reasonable assistance to the Contractor at the request of the Contractor:

- (a) obtaining copies of the laws which are relevant to the Contract but are not readily available; and
- (b) for the Contractor's applications for any permits licenses or approvals required by the laws of the country:
 - (i) which the Contractor is required to obtain under Sub-Clause

- 1.13 (*Compliance with Laws*); and
(ii) for the delivery of Goods, including clearance through customs.

- 2.3**
Employer's Personnel
- The Employer shall be responsible for ensuring that the Employer's Personnel and the Employer's other contractors on the Site:
- (a) co-operate with the Contractor's efforts under Sub-Clause 4.6 (*Co-operation*); and
 - (b) take actions similar to those which the Contractor is required to take under sub-paragraphs (a), (b) and (c) of Sub-Clause 4.8 (*Safety Procedures*) and under Sub-Clause 4.12 (*Protection of the Environment*).
- 2.4**
Employer's Claims
- If the Employer considers himself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Employer or the Engineer shall give notice and particulars to the Contractor.
- The notice shall be given as soon as practicable after the Employer became aware of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.
- The particulars shall specify the Clause or other basis of the claim, and shall include substantiation of the amount and/or extension to which the Employer considers himself to be entitled in connection with the Contract. The Engineer shall then proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine (i) the amount (if any) which the Employer is entitled to be paid by the Contractor, and/or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 (*Extension of Defects Notification Period*).
- This amount may be included as a deduction in the Contract Price and Payment Certificates. The Employer shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

3.0 The Engineer

- 3.1**
Engineer's Duties and Authority
- The Employer shall appoint the Engineer who shall carry out the duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.
- The Engineer shall have no authority to amend the Contract.
- The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Employer before exercising a specified authority, the requirements shall be as stated in the Contract Data. The Employer undertakes not to impose further constraints on the Engineer's authority, except as agreed with the Contractor.
- However, whenever the Engineer exercises a specified authority for which the Employer's approval is required, then (for the purposes of the Contract) the Employer shall be deemed to have given approval.

Except as otherwise stated in these Conditions:

- (a) whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Engineer shall be deemed to act for the Employer;
- (b) the Engineer has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract; and
- (c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances.

3.2

Delegation by the Engineer

The Engineer may from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation. These assistants may include a resident engineer, and/or independent inspectors appointed to inspect and/or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Engineer shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.4 (*Determinations*).

Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorised to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer, However:

- (a) any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Engineer to reject the work, Plant or Materials;
- (b) if the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.

3.3

Instructions of the Engineer

The Engineer may issue to the Contractor (at any time) instructions which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under this Clause. If an instruction constitutes a Variation, Clause 13 (*Variations and Adjustments*) shall apply.

The Contractor shall comply with the instructions given by the Engineer or delegated assistant, on any matter related to the Contract. These instructions shall be given in writing.

3.4

Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.4 to agree or determine any matter, the

Determinations Engineer shall consult with each Party in an endeavor to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

The Engineer shall give notice to both Parties of each agreement or determination, with supporting particulars. Each Party shall give effect to each agreement or determination unless and until revised under Clause 19 (*Claims, Disputes and Arbitration*).

4.0 The Contractor

4.1 Contractor's General Obligations The Contractor shall design, execute and complete the Works in accordance with the Contract, and shall remedy any defects in the Works. When completed, the Works shall be fit for the purposes for which the Works are intended as defined in the Contract. The Contractor shall employ the key personnel named in the Contract Data. Such persons can be substituted only with written approval of the Engineer.

The Contractor shall provide the Plant and Contractors Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.

The Contractor shall be responsible, for the adequacy, stability and safety of all Site operations, of all methods of construction and of all the Works.

The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods, which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

4.2 Performance Security The Contractor shall obtain (at his cost) a Performance Security for his proper performance of the Contract, in the amount stated in the Contract Data. The Contractor shall deliver the Performance Security to the Employer within 14 days after the receipt of the Letter of Acceptance. The Performance Security shall be in the form of a bank guarantee, as stipulated in Contract Data.

Without limitation to the provisions of the preceding paragraph, whenever the Engineer determines an addition to the Contract Price as a result of a change in cost and/or legislation or as a result of a variation amounting to more than 25 percent of the Initial Contract Price, the Contractor, at the Engineer's written request, shall promptly increase the value of the Performance Security by an equal percentage. The Performance Security of a joint venture shall be in the name of the joint venture.

The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied. The Employer shall not make a claim under the Performance Security,

except for amounts to which the Employer is entitled under the Contract in the event of:

- (a) failure by the Contractor to extend the validity of the Performance Security as described in the preceding paragraph, in which event the Employer may claim the full amount of the Performance Security;
- (b) failure by the Contractor to pay the Employer an amount due, as either agreed by the Contractor or determined under Sub-Clause 2.4 (*Employer's Claims*) or Clause 19 (*Claims, Disputes and Arbitration*), within 42 days after this agreement or determination;
- (c) failure by the Contractor to remedy a default within 42 days after receiving the Employer's notice requiring the default to be remedied; or
- (d) circumstances which entitle the Employer to termination under Sub-Clause 15.2 (*Termination by Employer*) irrespective of whether notice of termination has been given.

The Employer shall return the Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate

4.3

Contractor's Representative

The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract.

Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Start Date, submit to the Engineer, for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked, or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.

The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.

The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 (*Instructions of the Engineer*).

4.4

Subcontractors

The Contractor shall not subcontract the whole of the Works. The Contractor shall be responsible, for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor.

Unless otherwise stated in the Contract Data:

- (a) the Contractor shall not be required to obtain consent to suppliers of Materials, or to a subcontract for which the Subcontractor is named in the Contract;
- (b) the prior consent of the Engineer shall be obtained to other proposed Subcontractors; and
- (c) the Contractor shall give the Engineer not less, than 28 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site.

4.5

In this Sub-Clause, "Nominated Subcontractor" means a Subcontractor

**Nominated
Subcontractors**

whom the Engineer, under Clause 13 (*Variations and Adjustments*), instructs the Contractor to employ as a Subcontractor. The Contractor shall not be under any obligation to employ a Nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Engineer as soon as practicable, with supporting particulars.

4.6

Co-operation

The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

- (a) the Employer's Personnel;
- (b) any other contractors employed by the Employer; and
- (c) the personnel of any legally constituted public authorities.

Who may be employed in the execution on or near the Site of any work not included in the Contract.

Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to incur unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

The Contractor shall be responsible for his construction activities on the Site, and shall co-ordinate his own activities with those of other contractors to the extent (if any) specified in the Employer's Requirements.

If, under the Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Engineer in the time and manner stated in the Employer's Requirements.

4.7

Setting Out

The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract or notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions levels, dimensions or alignment of the Works.

The Employer shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.

If the Contractor suffers delay and/or incurs Cost from executing work which, was necessitated by an error in these items of reference, and an experienced contractor could not reasonably, have discovered such error and avoided this delay and/or Cost, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine: (i) whether and (if so) to what extent the error could not reasonably have been discovered;

and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

**4.8
Safety
Procedures**

The Contractor shall:

- (a) comply with all applicable safety regulations;
- (b) take care for the safety of all persons entitled to be on the Site;
- (c) use all necessary efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons;
- (d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 (*Employer's Taking Over*); and
- (e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.

**4.9
Sufficiency of
the Initial
Contract Price**

The Contractor shall be deemed to:

- (a) have satisfied himself as to the correctness and sufficiency of the Initial Contract Price; and
- (b) have based the Initial Contract Price on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters and any further data relevant to the Contractor's design.

Unless otherwise stated in the Contract, the Initial Contract Price covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper design, execution and completion of the Works and the remedying of any defects.

**4.10
Unforeseeable
Physical
Conditions**

In this Sub-Clause, "physical conditions" means natural physical conditions and made and other physical obstructions and pollutants, which the Contractor, encounters at the Site when executing the Works including sub-surface and hydrological conditions but excluding climatic conditions.

If the Contractor encounters adverse physical conditions which he considers to have been unforeseeable, the Contractor shall give notice to the Engineer as soon as practicable.

This notice shall describe the physical conditions, so that they can be inspected by the Engineer, and shall set out the reasons why the Contractor considers them to be unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Engineer may give, if an instruction constitutes a Variation, Clause 13 (*Variations and Adjustments*) shall apply.

If and to the extent that the Contractor encounters physical conditions which are unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost, which shall be included, in the Contract Price.

After receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine (i) whether and (if so) to what extent these physical conditions were unforeseeable; and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

However, before additional Cost is finally agreed or determined under sub-paragraph (ii) the Engineer may also review whether other physical conditions in similar parts of the Works (if any) were more favourable than could reasonably have been foreseen when the Contractor submitted the Bid. If and to the extent that these more favourable conditions were encountered, the Engineer may proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under subparagraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.

The Engineer may take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Bid, which may be made available by the Contractor, but shall not be bound by any such evidence.

4.11

**Contractor's
Equipment etc.**

The Contractor shall be responsible for all Contractor's Equipment, Materials, Temporary Works. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment, Material or Temporary Works without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.

4.12

**Protection of the
Environment**

The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values indicated in the Employer's Requirements, and shall not exceed the values prescribed by applicable Laws.

4.13

**Progress
Reports**

Monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in two copies. The first report shall cover the period up to the end of the first calendar month following the Start Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.

Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works. Each report shall include:

- (a) charts and detailed descriptions of progress, including each stage of design, Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection, testing, commissioning and trial operation;
- (b) photographs showing the status of manufacture and of progress on the Site;

- (c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of;
 - (i) commencement of manufacture;
 - (ii) contractor's inspections;
 - (iii) tests; and
 - (iv) shipment and arrival at the Site;
- (d) the details described in Sub-Clause 6.9. (Records of Contractor's Personnel and Equipment);
- (e) copies of quality assurance documents, test results and certificates of Materials;
- (f) list of Variations, notices given under Sub-Clause 2.4 (*Employer's Claims*) and notices given under Sub-Clause 19.1 (*Contractor's Claims*);
- (g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- (h) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardize the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

4.14

Contractor's Operations on Site

The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Engineer as working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.

During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.

Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfill obligations under the Contract.

4.15

Fossils

All fossils, coins, articles of value or antiquity and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.

The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

5.0 Design

5.1

General Design Obligations

The Contractor shall carry out, and be responsible for, the design of the Works. Design shall be prepared by Qualified Designers who are engineers or other professionals who comply with the criteria (if any) stated in the Employer's Requirements. Unless otherwise stated in the Contract, the Contractor shall submit to the Engineer for consent the name and particulars of each proposed designer and design Subcontractor.

The Contractor warrants that he, his designers and design Subcontractors have the experience and capability necessary for the design. The Contractor undertakes that the designers shall be available to attend discussions with the Engineer at all reasonable times, until the expiry date of the relevant Defects Notification Period.

Upon receiving notice under Sub-Clause 8.1 (*Commencement of Work*), the Contractor shall scrutinize the Employer's Requirements (including design criteria and calculations, if any) and the items of reference mentioned in Sub-Clause 4.1 (*Setting Out*). Within 45 days, calculated from the Start Date, the Contractor shall give notice to the Engineer of any error, fault or other defect found in the Employer's Requirements or these items of reference.

After receiving this notice, the Engineer shall determine whether Clause 13 (*Variations and Adjustments*) shall be applied, and shall give notice to the Contractor accordingly. If and to the extent that (taking account of cost and time) an experienced contractor exercising due care would have discovered the error, fault or other defect when examining the Site and the Employer's Requirements before submitting the Bid, the Time for Completion shall not be extended and the Contract Price shall not be adjusted.

5.2

Contractor's Documents

The Contractor's Documents shall comprise the technical documents specified in the Employer's Requirements, documents required to satisfy all regulatory approvals, and the documents described in Sub-Clause 5.7 (*As-Built Documents*) and Sub-Clause 5.8 (*Operation and Maintenance Manuals*). Unless otherwise stated in the Employer's Requirements, the Contractor's Documents shall be written in English language.

The Contractor shall prepare all Contractor's Documents, and shall also prepare any other documents necessary to instruct the Contractor's Personnel. The Employer's Personnel shall have the right to inspect the preparation of all these documents, wherever they are being prepared.

If the Employer's Requirements describe the Contractor's Documents

which are to be submitted to the Engineer for review and/or for approval, they shall be submitted accordingly, together with a notice as described below. In the following provisions of this Sub-Clause, (i) “review period” means the period required by the Engineer for review and (if so specified) for approval; and (ii) “Contractor’s Documents” exclude any documents which are not specified as being required to be submitted for review and/or for approval.

Unless otherwise stated in the Employer’s Requirements, each review period shall not exceed 21 Days, calculated from the date on which the Engineer receives a Contractor’s Document and the Contractor’s notice. This notice shall state that the Contractor’s Document is considered ready, both for review (and approval, if so specified) in accordance with this Sub-Clause and for use. The notice shall also state that the Contractor’s Document complies with the Contract, or the extent to which it does not comply.

The Engineer may, within the review period, give notice to the Contractor that a Contractor’s Document fails (to the extent stated) to comply with the Contract. If a Contractor’s Document so fails to comply, it shall be rectified, resubmitted and reviewed (and, if specified, approved) in accordance with this Sub-Clause, at the Contractor’s cost.

For each part of the Works, and except to the extent that the prior approval or consent of the Engineer shall have been obtained:

- (a) in the case of a Contractor’s Document which has (as specified) been submitted for the Engineer’s approval:
 - (i) the Engineer shall give notice to the Contractor that the Contractor’s Document is approved, with or without comments, or that it fails (to the extent stated) to comply with the Contract;
 - (ii) execution of such part of the Works shall not commence until the Engineer has approved the Contractor’s Document; and
 - (iii) the Engineer shall be deemed to have approved the Contractor’s Document upon the expiry of the review periods for all the Contractor’s Documents which are relevant to the design and execution of such part, unless the Engineer has previously notified otherwise in accordance with sub-paragraph (i);
- (b) execution of such part of the Works shall not commence prior to the expiry of the review periods for all the Contractor’s Documents which are relevant to its design and execution;
- (c) execution of such part of the Works shall be in accordance with these reviewed (and, if specified, approved) Contractor’s Documents; and
- (d) if the Contractor wishes to modify any design or document which has previously been submitted for review (and if specified, approval), the Contractor shall immediately give notice to the Engineer. Thereafter, the Contractor shall submit revised documents to the Engineer in accordance with the above procedure.

If the Engineer instructs that further Contractor’s Documents are required, the Contractor shall prepare them promptly.

Any such approval or consent, or any review (under this Sub-Clause or otherwise), shall not relieve the Contractor from any obligation or responsibility.

- 5.3 Contractor's Undertaking** The Contractor undertakes that the design, the Contractor's Documents, the execution and the completed Works will be in accordance with:
- (a) the Laws in the Country; and
 - (b) the documents forming the Contract, as altered or modified by Variations.
- 5.4 Technical Standards and Regulations** The design, the Contractor's Documents, the execution and the completed Works shall comply with the Country's technical standards, buildings, construction and environmental Laws, Laws applicable to the product being produced from the Works, and other standards specified in the Employer's Requirements applicable to the Works, or defined by the applicable Laws.
- All these Laws shall, in respect of the Works and each Section, be those prevailing when the Works or Section- are taken over by the Employer under Clause 10 (*Employer's Taking Over*) References in the Contract to published standards shall be understood to be references to the edition applicable on the Base Date, unless stated otherwise.
- If changed or new applicable standards come into force in the Country after the Base Date, the Contractor shall give notice to the Engineer and (if appropriate) submit proposals for compliance. In the event that:
- (a) the Engineer determines that compliance is required; and
 - (b) the proposals for compliance constitute a Variation.
- then the Engineer shall initiate a Variation in accordance with Clause 13 (*Variations and Adjustments*).
- 5.5 Samples** The Contractor shall submit the following samples/relevant information to the Engineer for pre-construction review in accordance with the procedure for Contractor's Documents described in Sub-Clause 5.2 above:
- (a) manufacturer's standard samples of Materials;
 - (b) samples specified (if any) in the Employer's Requirements; and
 - (c) additional samples instructed by the Engineer
- Each sample shall be labeled as to origin and intended use in the Works.
- 5.6 Training** The Contractor shall carry out the training of Employer's Personnel in the operation and maintenance of the Works to the extent specified in the Employer's Requirements. If the Contract specifies training which is to be carried out before taking-over, the Works shall not be considered to be completed for the purposes of taking-over under Clause 10.1 (*Taking Over of the Works and Sections*) until this training has been completed.
- 5.7 As-Built Documents** The Contractor shall prepare, and keep up-to-date, a complete set of "as-built" records of the execution of the Works, showing the exact as-built locations, sizes and details of the work as executed. These records shall be kept on the Site and shall be used exclusively for the purposes of this Sub-Clause. Two copies shall be supplied to the Engineer prior to the commencement of the Tests on Completion.
- In addition, the Contractor shall supply to the Engineer as-built drawings of the Works, showing all Works as executed, and submit them to the Engineer for review under Sub-Clause 5.2 (*Contractor's Documents*). The Contractor shall obtain the consent of the Engineer as to their size, the referencing system, and other relevant details.

	<p>Prior to the issue of any Taking-Over Certificate, the Contractor shall supply to the Engineer one full-size original and two (2) copies of the relevant as-built drawings, and any further documents specified in Employer's Requirements. Preferably an additional electronically stored soft copy of the aforesaid drawings and documents shall be submitted by the Contractor. The Works shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 (<i>Taking Over of the Works and Sections</i>) until the Engineer has received these documents.</p>
<p>5.8</p> <p>Operation and Maintenance Manuals</p>	<p>Prior to commencement of the Tests on Completion, the Contractor shall supply to the Engineer provisional operation and maintenance manuals in sufficient detail for the Employer to operate, maintain, dismantle, reassemble adjust and repair the Plant.</p> <p>The Works shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 (<i>Taking Over of the Works and Sections</i>) until the Engineer has received final operation and maintenance manuals in such detail, and any other manuals specified in the Employer's Requirements for these purposes.</p>
<p>5.9</p> <p>Design Error</p>	<p>If errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the Contractor's Documents, they and the Works shall be corrected at the Contractor's cost, notwithstanding any consent or approval under this Clause.</p>
<p>5.10</p> <p>Patents and Copyright</p>	<p>The Contractor shall save harmless and indemnify the Employer from and against all claims and proceedings for or on account of infringement of any copyrights in connection with drawings specifications and of any patent rights, design trademark, or name or other protected rights in respect of any Constructional Plant or Material used for or in connection with the Works or any of them and from and against all claims, proceedings, damages, costs, charges and expenses whatsoever specified and the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation connected with.</p>
<p>6.0 Staff and Labour</p>	
<p>6.1</p> <p>Rates of Wages and Conditions of Labour</p>	<p>The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.</p>
<p>6.2</p> <p>Persons in the Service of Employer</p>	<p>The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Employer's Personnel.</p>
<p>6.3</p> <p>Labour Laws</p>	<p>The Contractor shall comply with all the relevant labour laws applicable to the Contractor's Personnel, including laws relating to their employment, health, safety, welfare, and shall allow them all their legal rights.</p> <p>The Contractor shall require his employees to obey all applicable laws,</p>

- including those concerning safety at work.
- 6.4 Working Hours** No work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours unless:
- (a) otherwise stated in the Contract;
 - (b) the Engineer gives consent; or
 - (c) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer.
- 6.5 Facilities for Staff and Labour** Except as otherwise stated in the Employer's Requirements, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall, also provide facilities for the Employer's Personnel as stated in the Employer's Requirements.
- The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.
- 6.6 Health and Safety** The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. Contractor shall ensure that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics. The Contractor shall assign to an officer at the Site, to be responsible for maintaining safety and protection against accidents.
- 6.7 Contractor's Superintendence** Throughout the design and execution of the Works, and as long thereafter as is necessary to fulfill the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.
- Superintendence shall be given by a sufficient number of persons having adequate knowledge of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.
- 6.8 Contractor's Personnel** The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:
- (a) persists in any misconduct or lack of care;
 - (b) carries out duties incompetently or negligently;
 - (c) fails to conform with any provisions of the Contract; or
 - (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.
- If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.
- 6.9** The Contractor shall submit, to the Engineer details showing the number

Records of Contractor's Personnel and Equipment

of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

6.10

Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.

7. 0 Plant, Materials and Workmanship

7.1

Additional Samples

In addition to the requirements under Sub-Clause 5.5 (*Samples*), the Contractor shall submit the following:

- (a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost; and
- (b) additional samples instructed by the Engineer as a Variation.

Each sample shall be labeled as to origin and intended use in the Works.

7.2

Inspection

The Employers Personnel shall at all reasonable times:

- (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained; and
- (b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

The Contractor shall give the Employer's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

The Contractor shall give notice to the Engineer whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer does not require to do so. If the Contractor fails to give the notice, he shall, if and when required, by the Engineer, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.

7.3

Testing

This Sub-Clause, shall apply to all tests specified in the Contract, other than the tests after Completion (if any).

The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.

The Engineer may, under Clause 13 (*Variations and Adjustments*) vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract. The cost of carrying out this Variation shall be borne by the Contractor,

notwithstanding other provisions of the Contract.

The Engineer shall give the Contractor not less than 24 hours' notice of the Engineer's intention to attend the tests. If the Engineer does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Engineer's presence.

If the Contractor suffers delay and/or incurs Cost from complying with these instructions or as a result of a delay for which the Employer is responsible, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*);
- (b) Payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.4

Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials, design or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject the Plant, Materials, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.

If the Engineer requires this Plant, Materials, design or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.4 (*Employer's Claims*) pay these costs to the Employer.

7.5

Remedial Work

Notwithstanding any previous test or certification, the Engineer 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.

The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).

If the Contractor fails to comply with the instruction, the Employer shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.4 (*Employer's*

- 7.6 Ownership of Plant and Materials** *Claims*) pay to the Employer all costs arising from this failure. Each item of Plant and Materials shall, to the extent consistent with the laws of the country, become the property of the Employer at whichever is the earlier of the following times, free from liens and other encumbrances:
- (a) when it is delivered to the Site;
 - (b) when the Contractor is entitled to payment the value of the Plant and Materials under Sub-Clause 8.10 (*Payment for Plant and Materials in Event of Suspension*).
- 7.7 Royalties** Unless otherwise stated in the Employer's Requirements, the Contractor shall pay all royalties, rents and other payments for:
- (a) natural Materials obtained from outside the Site; and
 - (b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal areas within the Site are specified in the Contract.
- 8.0 Commencement, Delays and Suspension**
- 8.1 Commencement of Work** Unless otherwise stated in the Contract Data, the Start Date shall be 14 days after the Letter of Acceptance.
- The Contractor shall commence the design and execution of the Works as soon as is reasonably practicable after the Start Date, and shall then proceed with the Works with due expedition and without delay.
- 8.2 Time for Completion** The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be) given in Contract Data, including:
- (a) achieving the passing of the Tests on Completion; and
 - (b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 (*Taking Over of the Works and Sections*).
- 8.3 Programme** The Contractor shall submit a detailed time programme to the Engineer within 7 days after Start Date. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractors obligations. Each programme shall include:
- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design, Contractor's Documents, procurement, manufacture, inspection, delivery to Site, construction, erection, testing, commissioning and trial operation;
 - (b) the periods for reviews under Sub-Clause 5.2 (*Contractor's Documents*) and for any other submissions, approvals and consents specified in the Employer's Requirements;
 - (c) the sequence and timing of inspections and tests specified in the Contract; and
 - (d) a supporting report which includes:
 - (i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works; and
 - (ii) details showing the Contractor's reasonable estimate of the number

of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage. Unless the Engineer, within 7 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract.

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer in accordance with this Sub-Clause.

8.4

Extension Time for Completion

The Contractor shall be entitled subject to Sub-Clause 19.1 of (*Contractor's Claims*) to Completion an extension of the Time if and to the extent that completion for the purposes of Sub-Clause 10.1 (*Taking Over of the Works and Sections*) is or will be delayed by any of the following causes:

- (a) a Variation [unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 (*Variation Procedure*)];
- (b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions;
- (c) exceptionally adverse climatic conditions;
- (d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions; or
- (e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site.

If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Engineer in accordance with Sub-Clause 19.1 (*Contractor's Claims*) When determining each extension of time under Sub-Clause 19.1, the Engineer shall review previous determinations and may increase, but shall not decrease, the total extension of time.

8.5

Delays Caused by Authorities

If the following conditions apply, namely:

- (a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in the Country,
- (b) these 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 subparagraph (b) of Sub-Clause 8.4 (*Extension of Time for Completion*).

8.6

Rate of Progress

If, at any time:

- (a) actual progress is too slow to complete within the Time for Completion; and/or
- (b) progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 (*Programme*).

Other than as a result of a cause listed in Sub-Clause 8.4 (*Extension of Time for Completion*) then the Engineer may instruct the Contractor to submit, under Sub-Clause 8.3 (*Programme*) a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

- Unless the Engineer notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.4 (*Employer's Claims*) pay these costs to the Employer, in addition to delay damages (if any) under Sub-Clause 8.7 below.
- 8.7**
Delay Damages
- If the Contractor fails to comply with Sub-Clause 8.2 (*Time for Completion*) the Contractor shall subject to Sub-Clause 2.4 (*Employer's Claims*) pay delay damages to the Employer for this default. These delay damages shall be the sum stated in the Contract Data which shall be paid for every day which shall elapse between the relevant Time for Completion and the date stated in the Taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the Contract Data. These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Sub-Clause 15.2 (*Termination by Employer*) prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.
- 8.8**
Suspension of Work
- The Engineer 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. The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.
- 8.9**
Consequences of Suspension
- If the Contractor suffers delay and/or incurs Cost from complying with the Engineer's instructions under Sub-Clause 8.8 (*Suspension of Work*) and/or from resuming the work, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:
- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
 - (b) payment of any such Cost, which shall be included in the Contract Price.
- After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters. The Contractor shall not be entitled to an extension of time for, or to 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 Sub-Clause 8.8 (*Suspension of Work*).
- 8.10**
Payment for
- The Contractor shall be entitled to payment of the value (as at the date of suspension) of Plant and/or Materials which have not been delivered to Site, if:

**Plant and
Materials in
Event of
Suspension
8.11**

**Prolonged
Suspension**

- (a) the work on Plant or delivery of Plant and/or Materials has been suspended for more than 28 days; and
- (b) the Contractor has marked the Plant and/or Materials as the Employer's property in accordance with the Engineer's instructions.

If the suspension under Sub-Clause 8.8 (*Suspension of Work*) has continued for more than 84 days, the Contractor may request the Engineer's permission to proceed. If the Engineer does not give permission within 28 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13 (*Variations and Adjustments*) of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 (*Termination by Contractor*).

**8.12
Resumption of
Work**

After the permission or instruction to proceed is given, the Contractor and the Engineer shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension.

9.0 Tests on Completion

**9.1
Contractor's
Obligations**

The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.3 (*Testing*) after providing the documents in accordance with Sub-Clause 5.7 (*As-Built Documents*) and Sub-Clause 5.8 (*Operation and Maintenance Manuals*).

The Contractor shall give to the Engineer not less than 21 days notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.

Tests on Completion shall be carried out in the following sequence:

- (a) pre-commissioning tests, which shall include the appropriate inspections and ("dry" or cold") functional tests to demonstrate that each item of Plant can safely undertake the next stage, (b);
- (b) commissioning tests, which shall include the specified operational tests to demonstrate that the Works or Section can be operated safely and as specified, under all available operating conditions; and
- (c) trial operation, which shall demonstrate that the Works or Section perform reliably and in accordance with the Contract.

During trial operation, when the Works are operating under stable conditions, the Contractor shall give notice to the Engineer that the Works are ready for any other Tests on Completion, including performance tests to demonstrate whether the Works conform with criteria specified in the Employers Requirements and with the Schedule of Guarantees.

Trial operation shall not constitute a taking-over under Clause 10 (*Employer's Taking Over*). Unless, otherwise stated in the Particular Conditions, any product produced by the Works during trial operation shall be the property of the Employer.

In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the

9.2

Delayed Tests

Works, or a Section, have passed each of the Tests on Completion described in sub-paragraph (a), (b) or (c), the Contractor shall submit a certified report of the results of these Tests to the Engineer.

If the Tests on Completion are being unduly delayed by the Employer, Sub-Clause 7.3 (*Testing*) (fifth paragraph) and/or Sub-Clause 10.3 (*Interference with Tests on Completion*) shall be applicable.

If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.

If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

9.3

Retesting

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.4 (*Rejection*) shall apply, and the Engineer or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.

9.4

Failure to Pass Tests on Completion

If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 (*Retesting*) the Engineer shall be entitled to:

- (a) order further repetition of Tests on Completion under Sub-Clause 9.3;
- (b) if the failure deprives the Employer of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be) in which event the Employer shall have the same remedies as are provided in subparagraph (c) of Sub-Clause 11.4 (*Failure to Remedy Defects*); or
- (c) issue a Taking-Over Certificate, if the Employer so requests.

In the event of sub-paragraph (c), the Contractor shall then proceed in accordance with all other obligations under the Contract, and the Contract Price shall be reduced by such amount as shall be appropriate to cover the reduced value to the Employer as a result of this failure. Unless the relevant reduction for this failure is stated (or its method of calculation is defined) in the Contract, the Employer may require the reduction to be (i) agreed by both Parties (in full satisfaction of this failure only) and paid before this Taking-Over Certificate is issued, or (ii) determined and paid under Sub-Clause 2.4 (*Employer's Claims*) and Sub-Clause 3.4 (*Determinations*).

10.0 Employer's Taking Over

10.1

Taking Over of the Works and Sections

Except as stated in Sub-Clause 9.4 (*Failure to Pass Tests on Completion*) the Works shall be taken over by the Employer when (i) the Works have been completed, in accordance with the Contract, including the matters described in Sub-Clause 8.2 (*Time for Completion*) and except as allowed in sub-paragraph (a) below; and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.

The Contractor may apply by notice to the Engineer for a Taking-Over

Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.

The Engineer shall, within 28 days after receiving the Contractor's application:

- (a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or
- (b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause.

If the Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

The Engineer may, at the sole discretion of the Employer, issue a Taking-Over Certificate for any part of the Permanent Works.

10.2

Taking Over of Parts of the Works

The Employer shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Engineer has issued a Taking-Over Certificate for this part. However, if the Employer does use any part of the Works before the Taking-Over Certificate is issued:

- (a) the part which is used shall be deemed to have been taken over as from the date on which it is used;
- (b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Employer; and
- (c) if requested by the Contractor, the Engineer shall issue a Taking-Over Certificate for this part.

After the Engineer has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.

If the Contractor incurs Cost as a result of the Employer taking over and/or using a part of the Works, other than such use as is specified in the Contract or agreed by the Contractor, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to payment of any such Cost plus reasonable profit, which shall be included in the Contract Price. After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine this Cost and profit.

If a Taking-Over Certificate has been issued for a part of the Works (other

than a Section), the delay damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 (*Delay Damages*), and shall not affect the maximum amount of these damages.

10.3

Interference with Tests on Completion

If the Contractor is prevented, for more than 21 days, from carrying out the Tests on Completion by a cause for which the Employer is with Tests on responsible, the Employer shall be deemed to have taken over the Works Completion or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.

The Engineer shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Engineer shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.

If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Engineer -and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

11.0 Defects Liability

11.1

Completion of Outstanding, Work and Remedying Defects

In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable thereafter, the Contractor shall:

- (a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer; and
- (b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the Defects Notification Period stated in Contract Data for the Works or Section (as the case, may be).

If a defect appears or damage occurs, the Contractor shall be notified accordingly, by or on behalf of the Employer.

11.2

All work referred to in sub-paragraph (b) of Sub-Clause 11.1 (*Completion*

**Cost of
Remedying
Defects**

of Outstanding Work and Remedying Defects) shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

- (a) the design of the Works, other than a part of the design for which the Employer is responsible (if any);
- (b) Plant, Materials or workmanship not being in accordance with the Contract;
- (c) improper operation or maintenance which was attributable to matters for which the Contractor is responsible (under Sub-Clauses 5.5 to 5.7 or otherwise); or
- (d) failure by the Contractor to comply with any other obligation.

If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Employer, and Sub-Clause 13.3 (*Variation Procedure*) shall apply.

11.3

**Extension of
Defects
Notification
Period**

The Employer shall be entitled subject to Sub-Clause 2.4 (*Employer's Claims*) to an Notification Period extension of the Defects for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or damage. However, a Defects Notification Period shall not be extended by more than two years.

If delivery and/or erection of Plant and/or Materials was suspended under Sub-Clause 8.8 (*Suspension of Work*) or Sub-Clause 16.1 (*Contractor's Entitlement to Suspend Work*), the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two years after the Defects Notification Period for the Plant and/or Materials would otherwise have expired.

11.4

**Failure to
Remedy Defects**

If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by (or on behalf of) the Employer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2 (*Cost of Remedying Defects*) the Employer may (at his option):

- (a) carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.4 (*Employer's Claims*) pay to the Employer the costs reasonably incurred by the Employer in remedying the defect or damage;
- (b) require the Engineer to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.4 (*Determinations*); or
- (c) if the defect or damage deprives the Employer of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, the Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same,

- clearing the Site and returning Plant and Materials to the Contractor.
- 11.5**
Removal of Defective Work If the defect or damage cannot be remedied expeditiously on the Site and the Employer gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.
- 11.6**
Further Tests If the work of remedying of any defect or damage may affect the performance of the Works, the Engineer may require the repetition of any of the tests described in the Contract, including Tests on Completion and/or Tests after Completion. The requirement shall be made by notice within 28 days after the defect or damage is remedied. These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 (*Cost of Remedying Defects*) for the cost of the remedial work:
- 11.7**
Contractor to Search The Contractor shall, if required by the Engineer, search for the cause of any defect, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 (*Cost of Remedying Defects*) the Cost of the search plus reasonable profit shall be agreed or determined by the Engineer in accordance with Sub-Clause 3.4 (*Determinations*) and shall be included in the Contract Price.
- 11.8**
Performance Certificate Performance of the Contractor's obligations shall not be considered to have been completed until the Engineer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract. The Engineer shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Notification Periods, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Performance Certificate shall be issued, to the Employer. Only the Performance Certificate shall be deemed to constitute acceptance of the Works.
- 11.9**
Unfulfilled Obligations After the Performance Certificate has been issued, each Party shall remain liable for the fulfillment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.
- 11.10**
Clearance of Site Upon receiving the Performance Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site. If all these items have not been removed within 28 days after the Employer receives a copy of the Performance Certificate, the Employer may dispose of any remaining items. The Employer shall be entitled to be paid the costs incurred in connection with, or attributable to, such disposal and restoring the Site. The Contractor shall pay the such costs to the Employer.

12.0 Tests after Completion

12.1

Procedure for Tests after Completion

If Tests after Completion are specified in the Contract, this Clause shall apply. Unless otherwise stated in the Contract Data, the Employer shall:

- (a) provide all electricity, equipment, fuel, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the Tests after Completion efficiently; and
- (b) carry out the Tests after Completion in accordance with the manuals supplied by the Contractor under Sub-Clause 5.8 (*Operation and Maintenance Manuals*) and such guidance as the Contractor may be required to give during the course of these Tests; and in the presence of such Contractor's Personnel as either Party may reasonably request.

The Tests after Completion shall be carried out as soon as is reasonably practicable after the Works or Section have been taken over by the Employer. The Employer shall give to the Contractor 21 days' notice of the date after which the Tests after Completion will be carried out. Unless otherwise agreed, these Tests shall be carried out within 14 days after this date, on the day or days determined by the Employer.

If the Contractor does not attend at the time and place agreed, the Employer may proceed with the Tests after Completion, which shall be deemed to have been made in the Contractor's presence, and the Contractor shall accept the readings as accurate.

The results of the Tests after Completion shall be compiled and evaluated by both parties. Appropriate account shall be taken of the effect of the Employer's prior use of the Works.

12.2

Delayed Tests

If the Contractor incurs Cost as a result of any unreasonable delay by the Employer to the Tests after Completion, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause-19.1 (*Contractor's Claims*) to payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine this Cost and profit.

If, for reasons not attributable to the Contractor, a Test after Completion on the Works or any Section cannot be completed during the Defects Notification Period (or any other period agreed upon by both Parties), then the Works or Section shall be deemed to have passed this Test after Completion.

12.3

Retesting

If the Works, or a Section, fail to pass the Tests after Completion:

- (a) sub-paragraph (b) of Sub-Clause 11.1 (*Completion of Outstanding Work and Remedying Defects*) shall apply; and
- (b) either Party may then require the failed Tests, and the Tests after Completion on any related work, to be repeated under the same terms and conditions.

If and to the extent that this failure, and retesting attributable to any of the matters listed in sub-paragraphs (a) to (d) of Sub-Clause 11.2 (*Cost of Remedying Defects*) and cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2. (*Employer's Claims*) pay these costs to the Employer.

12.4

Failure to Pass Tests after Completion

If the following conditions apply, namely:

- (a) the Works, or a Section, fail to pass any or all of the Tests after Completion;
- (b) the relevant, sum payable as non-performance damages for this failure is stated (or its method of calculation is defined) in the Contract; and
- (c) the Contractor pays this relevant sum to the Employer during the Defects Notification Period,

then the Works or Section shall be deemed to have passed these Tests after Completion.

If the Works, or a Section, fail to pass a Test after Completion and the Contractor proposes to make adjustments or modifications to the Works or such Section, the Contractor may be instructed by (or on behalf of) the Employer that right of access to the Works or Section cannot be given until a time that is convenient to the Employer. The Contractor shall then remain liable to carry out the adjustments or modifications and to satisfy this Test, within a reasonable period of receiving notice by (or on behalf of) the Employer of the time that is convenient to the Employer. However, if the Contractor does not receive this notice during the relevant Defects Notification Period, the Contractor shall be relieved of this obligation and the Works or Section (as the case may be) shall be deemed to have passed this Test after Completion.

If the Contractor incurs additional Cost as a result of any unreasonable delay by the Employer in permitting access to the Works or Plant by the Contractor, either to investigate the causes of a failure to pass a Test after Completion or to carry out any adjustments or modifications, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine this Cost and profit.

13.0 Variations and Adjustments

13.1

Right to Vary Employer's Requirements

The term 'Variation' means:

- (a) a change in the Employer's Requirements which necessitate any alterations or modifications of the design, quality of the Works as described by or referred to in the Employer's Requirements or in the Contractor's Proposals, other than that reasonably necessary for the purpose of remedial works pursuant to Sub-Clause 7.5, including:
 - (i) addition, omission or substitution of any work;
 - (ii) alteration of the kind or standard of any of the materials or goods to be used in the Works; and
 - (iii) removal from Site or any Work executed or Materials or Goods brought by the Contractor for the purpose of the Works
- (b) the addition, alteration or omission of any obligations or restrictions imposed by the Employer in the Employer's Requirements in regard to:
 - (i) access to the Site or use of any specific parts of the Site;
 - (ii) the execution or completion of the Works in any specific order.

A variation may be initiated by the Engineer at any time prior to issuing

the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal. A variation shall not comprise the omission of any work which is to be carried out by others.

The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, (ii) it will reduce the safety or substantiality of the Works, or (iii) it will have an adverse impact on the achievement of the Schedule of Guarantees. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction.

13.2

**Value
Engineering**

The Contractor may, at any time, submit to the Engineer a written proposal which (in the Contractor's option) will, if adopted, (i) accelerate completion; (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works; or (iv) otherwise be of benefit to the Employer.

The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 (*Variation Procedure*).

13.3

**Variation
Procedure**

If the Engineer requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:

- (a) a description of the proposed design and/or work to be performed and a programme for its execution;
- (b) a description of the proposed design and/or work to be performed and a programme for its execution;
- (c) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 (*Programme*) and to the Time for Completion; and
- (d) the Contractor's proposal for adjustment to the Contract Price.

The Engineer shall, as soon as practicable after receiving such proposal under Sub-Clause 13.2 (*Value Engineering*) or otherwise, respond with approval, disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.

Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.

Upon instructing or approving a Variation, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine adjustments to the Contract Price and the Schedule of Payments. These adjustments shall include reasonable profit, and shall take account of the Contractor's submissions under Sub-Clause 13.2 (*Value Engineering*) if applicable.

13.4

**Provisional
Sums**

Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer'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 Engineer shall have instructed. For each Provisional Sum, the Engineer may instruct:

- (a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 (*Variation Procedure*); and/or
- (b) Plant, Materials or services to be purchased by the Contractor, for which there shall be included in the Contract Price:
 - (i) the actual amounts paid (or due to be paid) by the Contractor; and
 - (ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule.

The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

13.5

Day Work

For work of a minor or incidental nature, the Engineer may instruct that a Variation shall be executed on a Day work basis. The work shall then be valued in accordance with the Day work schedule included in the Contract, and the following procedure shall apply. If a Day work schedule is not included in the Contract, this Sub-Clause shall not apply.

Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

Except for any items for which the Day work schedule specifies that payment is not due, the Contractor shall deliver each day to the Engineer accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:

- (a) the names, occupations and time of Contractor's Personnel;
- (b) the identification, type and time of Contractor's Equipment and Temporary Works; and
- (c) the quantities and types of Plant and Materials used.

One copy of each statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 (*Application for Interim Payment Certificates*).

13.6

Adjustments for Changes in Legislation

The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the laws of the country (including the introduction of new laws and the repeal or modification of existing laws) or in the judicial or official governmental interpretation of such laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract. The provision of this Sub-Clause shall not be applicable for increases or decreases in cost of Goods, if such increases or decreases are considered under Sub-Clause 13.7 (*Adjustments for Changes in Cost*).

If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1

(Contractor's Claims) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

14.0 Contract Price and Payment

14.1 The Contract Price

Unless otherwise stated in the Contract Data:

- (a) the Contract Price shall be the lump sum stated in the Letter of Acceptance and be subject to adjustments in accordance with the Contract;
- (b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs, except as stated in Sub-Clause 13.6 (*Adjustments for Changes in Legislation*); and
- (c) any quantities which may be set out in a Schedule are estimated quantities and are not to be taken as the actual and correct quantities of the Works which the Contractor is required to execute;

However, if any part of the Works is to be paid according to quantity supplied or work done, the provisions for measurement and evaluation shall be as stated in the Contract Data. The Contract Price shall be determined accordingly, subject to adjustments in accordance with the Contract.

14.2 Advance Payment

The Employer shall make an advance payment, as an interest-free loan for mobilization and design, when the Contractor submits a guarantee to the value of the advance payment in accordance with this Sub-Clause. The total advance payment shall not exceed 20% of Initial Contract Price and will be paid in two equal installments. First installment shall be paid after furnishing the guarantee and submission of the Performance Security. The second installment will be paid after the certification made by the Engineer that adequate Contractor's Documents have been furnished by the Contractor for him to commence construction works.

The Engineer shall issue two separate Interim Payment Certificates for the first and second installment after receiving Statement (under Sub-Clause 14.3 (*Application for Interim Payment Certificates*)) and after the Employer receives (i) the Performance Security in accordance with Sub-Clause 4.2 (*Performance Security*) and (ii) a guarantee/s in amounts equal to the advance payment. This guarantee shall be issued by an entity and from approved by the Employer.

The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount may be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

The advance payment shall be repaid through percentage deductions in Payment Certificates as follows:

- (a) deductions shall commence from the Interim Certificate issued after the payment of the advance payment: and
- (b) advance payment shall be repaid by deducting proportionate amounts from the Interim Certificates. Advance payment shall be repaid in full when the total certified value of Works reaches 90% of the Initial Contract Price less provisional sums.

If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 (*Termination by Employer*) Clause 16 (*Suspension and Termination by Contractor*) or Clause 20 (*Force Majeure*), as the case may be, the whole of the outstanding advance shall immediately become due and payable by the Contractor to the Employer.

14.3

Application for Interim Payment Certificates

The Contractor shall submit a Statement in three copies to the Engineer after the end of the period of payment stated in the Contract (if not stated after the end of each month), in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the relevant report on progress in accordance with Sub-Clause 4.13 (*Progress Reports*).

The Statement shall include the following items, as applicable, which shall be expressed in the various currencies (if any) in which the Contract Price is payable, in the sequence listed:

- (a) the estimated contract value of the Works executed and the Contractors Documents produced up to the end of the month (including Variations but excluding items described in subparagraphs (b) to (g) below);
- (b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.6 (*Adjustments for Changes in Legislation*) and Sub-Clause 13.7 (*Adjustments for Changes in Cost*);
- (c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in Contract Data to the total of the above amounts, until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in Contract Data;
- (d) any amounts to be added and deducted for the advance payment and repayments in accordance with Sub-Clause 14.2 (*Advance payment*);
- (e) any amounts to be added and deducted for Plant and Materials;
- (f) any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 19 (*Claims, Disputes and Arbitration*); and
- (g) the deduction of amounts certified in all previous Payment Certificates.

14.4

Issue of Interim Payment Certificates

No amount will be certified or paid until the Employer has received and approved the Performance Security. Thereafter, the Engineer shall, within 21 days after receiving a Statement and supporting documents, issue to the Employer an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with supporting particulars.

However, prior to issuing the Taking-Over Certificate for the Works, the Engineer shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated in Contract Data. In this event, the Engineer shall give notice to the Contractor accordingly.

An Interim Payment Certificate shall not be withheld for any other reason, although:

- (a) if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
- (b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

The Engineer may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Engineer's acceptance, approval, consent or satisfaction.

**14.5
Payment**

The Employer shall pay to the Contractor:

- (a) the first installment of the advance payment after receiving the documents in accordance with Sub-Clause 4.2 (*Performance Security*) and Sub-Clause 14.2 (*Advance Payment*), whichever is later;
- (b) the amount certified in each Interim Payment Certificate within 28 Days after the Engineer receives the Statement and supporting documents; and
- (c) the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate.

**14.6
Delayed
Payment**

If the Contractor does not receive payment in accordance with Sub-Clause 14.5 (*Payment*), the Contractor shall be entitled to receive an interest of amount calculated at 1 % above the published lending rate of the Central Bank of Sri Lanka to commercial banks as at the date the payment becomes overdue and the period unto the date actual payment is effected.

**14.7
Payment of
Retention
Money**

When Taking-Over Certificate has been issued, one half of the total amount retained shall be repaid to the Contractor and the second half when the Defects Notification Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

**14.8
Statement at
Completion**

Within 42 Days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer three copies of a Statement at completion with supporting documents, in accordance with Sub-Clause 14.3 (*Application for Interim Payment Certificates*) showing:

- (a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works;
- (b) any further sums which the Contractor considers to be due; and
- (c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.

14.9

**Application for
Final Payment
Certificate**

The Engineer shall then certify in accordance with Sub-Clause 14.4 (*Issue of Interim Payment Certificates*)

Within 28 Days after receiving the Performance Certificate, the Contractor shall submit to the Engineer three copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:

- (a) the value of all work done in accordance with the Contract; and
- (b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".

However if, following discussions between the Engineer, and the Contractor and any changes to the draft final statement which are agreed it becomes evident that a dispute exists, the Engineer shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub-Clause 19.3 (*Procedure for Disputes*) or Sub-Clause. 19.5 (*Arbitration*) the Contractor shall then prepare and submit to the Employer (with a copy to the Engineer) a Final Statement.

14.10

Discharge

When submitting the Final Statement, the Contractor shall submit a written discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the out-standing balance of this total in which event the discharge will be effective on such date.

14.11

**Issue of Final
Payment
Certificate**

Within 28 days after receiving the Final Statement and written discharge in accordance with Sub-Clause 14.9 (*Application for Final Payment Certificate*) and Sub-Clause 14.10 (*Discharge*) the Engineer shall issue to the Employer, the Final Payment Certificate which shall state:

- (a) the amount which is finally due; and
- (b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.

If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.9 (*Application for Final Payment Certificate*) and Sub-Clause 14.10 (*Discharge*) the Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

14.12

**Cessation of
Employer's**

The Employer shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works except to the extent that the Contractor shall have included an amount expressly for it:

Liability

- (a) in the Final Statement and also;
- (b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.8 (*Statement at Completion*).

However, this Sub-Clause shall not limit the Employer's liability under his indemnification obligations, or the Employer's liability in any case of fraud, deliberate default or reckless misconduct by the Employer.

15.0 Termination by Employer

15.1

If the Contractor fails to carry out any obligation under the Contract, the Engineer may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.

**Notice to
Contract**

15.2

**Termination by
Employer**

The Employer shall be entitled to terminate the Contract if the Contractor:

- (a) fails to comply with Sub-Clause 4.2 (*Performance Security*) or with a notice under Sub-Clause 15.1 (*Notice to Correct*);
- (b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract;
- (c) without reasonable excuse fails:
 - (i) to proceed with the Works in accordance with Clause 8.0 (*Commencement, Delays and Suspension*); or
 - (ii) to comply with a notice issued under Sub-Clause 7.4 (*Rejection*) or Sub-Clause 7.5 (*Remedial Work*) within 28 days after receiving it;
- (d) subcontracts the Works or assigns the Contract without the required agreement;
- (e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable laws) has a similar effect to any of these acts or events; or
- (f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:
 - (i) for doing or forbearing to do any action in relation to the Contract; or
 - (ii) for showing or forbearing to show favour or disfavour to any person in relation to the Contract,

or if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination.

In any of these events or circumstances, the Employer may, upon giving 14 days notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f), the Employer may by notice terminate the Contract immediately

The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.

The Contractor shall then leave the Site and deliver any required Goods,

all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract; and (ii) for the protection of life or property or for the safety of the Works.

After termination, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

The Employer shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold by the Employer in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

15.3

**Valuation at
Date of
Termination**

As soon as practicable after a notice of termination under Sub-Clause 15.2 (*Termination by Employer*) has taken effect, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

15.4

**Payment after
Termination**

After a notice of termination under Sub-Clause 15.2 (*Termination by Employer*) has taken effect, the Employer may:

- (a) proceed in accordance with Sub-Clause 2.4 (*Employer's Claims*);
- (b) withhold further payments to the Contractor until the costs of design, execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established; and/or
- (c) recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 (*Valuation at Date of Termination*). After recovering any such losses, damages and extra costs, the Employer shall pay any balance to the Contractor.

15.5

**Employer's
Entitlement to
Termination**

The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 days after the later of the dates on which the Contractor receives this notice or the Employer returns the Performance Security. The Employer shall not terminate the Contract under this Sub-Clause in order to execute the Works himself or to arrange for the Works to be executed by another contractor.

After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 (*Cessation of Work and Removal of Contractor's Equipment*) and shall be paid in accordance with Sub-Clause 20.6 (*Optional Termination, Payment and Release*).

16.0 Suspension and Termination by Contractor

16.1

If the Engineer fails to certify in accordance with Sub-Clause 14.4 (*Issue*

**Contractor's
Entitlement to
Suspend Work**

of *Interim Payment Certificates*) or the Employer fails to comply with Sub-Clause 14.5 (*Payment*) the Contractor may, after giving not less than 42 days' notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate,

reasonable evidence or payment, as the case may be and as described in the notice.

The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.6 (*Delayed Payment*) and to termination under Sub-Clause 16.2 (*Termination by Contractor*).

If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

**16.2
Termination by
Contractor**

The Contractor shall be entitled to terminate the Contract if:

- (a) the Contractor does not receive the reasonable evidence within 56 days after giving notice under Sub-Clause 16.1 (*Contractor's Entitlement to Suspend Work*);
- (b) the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate;
- (c) the Contractor does not receive the amount due under an Interim Payment Certificate within 56 days after the expiry of the time stated in Sub-Clause 14.5 (*Payment*) within which payment is to be made [*except for deductions in accordance with Sub-Clause 2.4 (Employer's Claims)*];
- (d) the Employer substantially fails to perform his obligations under the Contract;
- (e) the Employer fails to comply with Sub-Clause 1.6 (*Contract Agreement*) or Sub-Clause 1.7 (*Assignment*);
- (f) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 (*Prolonged Suspension*); or
- (g) the Employer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable laws) has a similar effect to any of these acts or events.

In any of these events or circumstances, the Contractor may, upon giving 21 days notice to the Employer, terminate the Contract. However, in the

case of sub paragraph (f) or (g), the Contractor may by notice terminate the Contract immediately.

The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract or otherwise.

16.3

Cessation of Work and Removal of Contractor's Equipment

After a notice of termination under Sub-Clause 15.5 (*Employer's Entitlement to termination*) Sub-Clause 16.2 (*Termination by Contractor*) or Sub-Clause 20.6 (*Optional Termination, Payment and Release*) has taken effect, the Contractor shall promptly:

- (a) cease all further work, except for such work as may have been instructed by the Engineer for the protection of life or property or for the safety of the Works;
- (b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment; and
- (c) remove all other Goods from the Site, except as necessary for safety, and leave the Site,

16.4

Payment on Termination

After a notice of termination under Sub-Clause 16.2 (*Termination by Contractor*) has taken effect, the Employer shall promptly:

- (a) return the Performance Security to the Contractor;
- (b) pay the Contractor in accordance with Sub-Clause 20.6 (*Optional Termination, Payment and Release*); and
- (c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

17.0 Risk and Responsibility

17.1

Indemnities

The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fee and expenses) in respect of:

- (a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the design, execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, willful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents; and
- (b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss:
 - (i) arises out of or in the course of or by reason of the design, execution and completion of the Works, and the remedying of any defects; and
 - (ii) is attributable to any negligence, willful act or breach of the Contract by the Contractor, the Contractor's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

17.2

Contractor's Care of the Works

The Contractor shall take full responsibility for the care of the Works and Goods from the Start Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 (Taking Over of the Works) and Sections) for the Works, when responsibility for the care of the Works shall pass to the Employer. If a Taking-Over Certificate is issued (or is deemed to be issued) for any Section or part of the Works, responsibility

for the care of the Section or part shall be pass to the Employer.

After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 (*Employer's Risks*) the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

The risks referred to in Sub-Clause 17.4 below are:

**17.3
Employer's
Risks**

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies;
- (b) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war, within the country;
- (c) riot, commotion or disorder within the country by persons other than the Contractor's Personnel and other employees of the Contractor and Subcontractors;
- (d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, within the country, except as may be attributable to the Contractor's use of such munitions explosives, radiation or radio-activity;
- (e) pressure, waves caused by aircraft of other aerial devices traveling at sonic or supersonic speeds;
- (f) use or occupation by the Employer of any part of the Permanent Works, except as may be specified in the Contract;
- (g) design of any part of the Works by the Employer's Personnel or by others for whom the Employer is responsible, if any; and
- (h) any operation of the forces of nature which is unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventative precautions.

**17.4
Consequences of
Employer's
Risks**

If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Engineer and shall rectify this loss or damage to the extent required by the Engineer.

If the Contractor suffers delay and/or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 19.1 (*Contractor's Claims*) to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and

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

In the case of sub-paragraphs (f) and (g) of Sub-Clause 17.3 (*Employer's Risks*), reasonable profit on the Cost shall also be included.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.

18.0 Insurance

18.1

Insurance for Works and Contractor's Equipment

Without limiting his obligations and responsibilities under the Contract, the Contractor before the Start Date, shall insure up to the amounts given below, in the joint names of the Employer and the Contractor against all loss or damage from whatever cause arising, other than expected risks, for which he is responsible under the terms of the Contract and in such manner that the Employer and Contractor are covered for the period stipulated in Sub-Clause 17.2 and are also covered for the period of Defects Notification for loss or damage arising from a cause of, occurring prior to the commencement of the Defect Notification Period, and for any loss or damage occasioned by the Contractor in the course of any operations carried out by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 11:

(a) Works for an amount not less than 115% of Initial Contract Price; and

(b) The Contractor's Equipment for the replacement value.

18.2

Third Party Insurance (including Employer's Property)

The Contractor before the Start Date, shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.1 (*Insurance for Works and Contractor's Equipment*)) or to any person, which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

This insurance shall be for a limit per occurrence of not less than Rupees one million unless other amount is stated in Contract Data, with no limit on number occurrences.

The insurances specified in this Sub-Clause:

(a) Shall be in the joint names of the Parties; and

(b) Shall be extended to cover liability for all loss and damage to the Employer's property (except things insured under Sub-Clause 18.1 arising out of the Contractor's performance of the Contract.

18.3

Insurance for Contractor's Personnel

The Contractor before the Start Date, shall effect and maintain insurance against liability for claims, damages losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The Employer and the Engineer shall also be indemnified under the policy of insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with

this- Clause.

18.4

**Insurance for
Professional
Indemnity**

The Contractor shall effect professional indemnity insurance, which shall cover the risk of professional negligence in the design of the Works. This insurance shall be for a limit, of not less than that stated in the Contract Data. The Contractor shall use his best endeavors to maintain the professional indemnity insurance in full force and effect from Start Date until Completion of the Works. The Contractor undertakes to notify the Employer promptly of any difficulty in extending, renewing or reinstating this insurance.

19.0 Claims, Disputes and Arbitration

19.1

**Contractor's
Claims**

If the Contractor considers himself to be entitled to any extension of the Time for Completion 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 Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Employers liability, the Engineer may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

Within 84 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 Engineer, the Contractor shall send to the Engineer 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. If the event or circumstance giving rise to the claim has a continuing effect:

- (a) this fully detailed claim may be considered as interim;
- (b) the Contractor may send further, interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.

Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.

Each Payment Certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as, he has been able to substantiate.

The Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 (*Extension of Time for Completion*) and/or (ii) the additional payment (if any) to Which the Contractor is entitled under the Contract.

The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which/may apply to a claim, If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

19.2

Disputes

If the Employer and the Contractor have not agreed on the appointment of the Adjudicator prior to the signing of the agreement the Adjudicator shall be appointed by the appointing authority designated in the Contract Data.

If the Contractor believes that a decision taken by the Employer and/or the Engineer was wrongly taken or ultra vires the contract, then as a precedence to Arbitration, the decision of the Employer and/or the Engineer shall be referred to the Adjudicator for mediation within 28 Days of the notification of the Employer's and/or the Engineer's decision.

19.3

**Procedure for
Disputes**

The Adjudicator shall give the outcome of the mediation in writing to the parties within 28 Days of the dispute being referred to him.

The cost of the Adjudicator shall be divided equally between the Employer and the Contractor, irrespective of the findings of the Adjudicator. Either party may refer the issue/s to Arbitration in accordance with Sub-Clause 19.5 (*Arbitration*) within 28 Days of the Adjudicator's written communication. If neither party refers the dispute to arbitration within the above 28 Days, the Adjudicator's written communication will be final and binding. The Adjudicator is not required or bound to appear or justify the outcome of the mediation before any arbitral tribunal or a court of justice. His findings however may be produced by any of the parties at such arbitral or judicial sittings.

19.4

Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator should be removed as he is not functioning in a satisfactory manner, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. Such appointment shall be made within 28 Days, after the resignation, death or removal of the

**Replacement of
Adjudicator**

Adjudicator. In case the Employer and Contractor fail to agree on the initial appointment or replacement of the Adjudicator as above, within 28 Days, the Adjudicator shall be designated by the appointing authority designated in the Contract Data at the request of either party, within 21 Days of receipt of such request.

**19.5
Arbitration**

Any doubt, difference, dispute, controversy or claim arising, out of or in connection with or touching or concerning the execution or maintenance of the works in this contract, or on the interpretation thereof or on the rights, duties, obligations, or liabilities of any of the parties thereto or on the operation, breach termination, abandonment, foreclosure or invalidity thereof, shall be finally settled by arbitration after written notice by either party to the Contract to the other for a decision to a sole arbitrator to be appointed as hereinafter provided.

The party desiring arbitration shall nominate three arbitrators out of which one to be nominated by the other party within 21 Days of the receipt of the said request. If the other party does not nominate one to serve as Arbitrator within the stipulated period the party calling for arbitration shall nominate one of the three and inform the other party accordingly.

The arbitration shall be conducted in accordance with Arbitration Act No. 11 of 1995.

If the Arbitrator so appointed is unable or unwilling to act or resign the appointment or vacate his office due to any reason whatsoever another Arbitrator shall be appointed in the same manner as mentioned aforesaid.

The Arbitrator so appointed shall be entitled to determine the rules of procedure to be followed in the Arbitration.

The Arbitration shall be held in Sri Lanka and the venue if not finalized by the parties, shall be decided by the Arbitrator.

20.0 Force Majeure

20.1

**Definition of
Force Majeure**

In this Clause, "Force Majeure" means an exceptional event or circumstance:

- (a) which is beyond a Party's control;
- (b) which such Party could not reasonably have provided against before entering into the Contract;
- (c) which, having arisen, such Party could not reasonably have avoided or overcome; and
- (d) which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies;
- (ii) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war;
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel and other employees of the Contractor and Subcontractors;
- (iv) 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; and
(v) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.
- 20.2**
Notice of Force Majeure
- If a Party is or will be prevented from performing any of its obligations under the Contract by Force Majeure, then it shall give notice 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. The notice shall be given within 14 Days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.
- The Party shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them.
- 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.
- 20.3**
Duty to Minimize Delay
- Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure.
- A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.
- 20.4**
Consequence of Force Majeure
- If the Contractor is prevented from performing any of his obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 20.2 (*Notice of Force Majeure*) and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled to such Costs subject to Sub-Clause 19.1 (*Contractor's Claims*) to:
- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 (*Extension of Time for Completion*); and
- (b) if the event or circumstance is of the kind described in sub paragraphs (i) to (iv) of Sub-Clause 20.1 (*Definition of Force Majeure*) and, in the case of sub-paragraphs (ii) to (iv), occurs in the country, payment of any such Cost.
- After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.4 (*Determinations*) to agree or determine these matters.
- 20.5**
Force Majeure Affecting Sub-contractor
- If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractors non-performance or entitle him to relief under this Clause.
- 20.6**
- If the execution of substantially all the Works in progress is prevented for a continuous period of 84 Days by reason of Force Majeure of which notice has been given under Sub-Clause 20.2 (*Notice of Force Majeure*)

**Optional
Termination,
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or for multiple periods which total more than 140 Days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 Days after the notice is given, and the Contractor shall proceed in accordance with Sub-Clause 16.3 (*Cessation of Work and Removal of Contractor's Equipment*).

Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include:

- (a) the amounts payable for any work carried out for which a price is stated in the Contract;
- (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal;
- (c) any other Cost or liability which in the circumstances was reasonably incurred by the Contractor in the expectation of completing the Works;
- (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- (e) the Cost of repatriation of the Contractor's staff and labour employed wholly in connection with the Works at the date of termination.

20.7

**Release from
Performance
under the Law**

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 fulfill 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 Employer to the Contractor shall be the same as would have been payable under Sub-Clause 20.6 (*Optional Termination, Payment and Release*) if the Contract had been terminated under Sub-Clause 20.6.

Section - V

STANDARD FORMS

Form of Bid Security, Letter of Acceptance, Form of Agreement, Form of Performance Guarantee, Form of Mobilization Advance Guarantee, Form of Retention Money Guarantee

Notes on Standard Forms:

Bidders shall submit the completed Form of Bid, Bid Security in compliance with the requirements of the bidding documents.

Bidders should not complete the Form of Agreement at the time of preparation of bids. The successful bidder will be required to sign the Form of Agreement, after the award of contract. Any corrections or modifications to the accepted bid resulting from arithmetic corrections, acceptable deviations, or quantity variations in accordance with the requirements of the bidding documents should be incorporated into the Agreement. The Form of Performance Security, Form of Advance Payment Security and Form of Retention Money Guarantee should not be completed by the bidders at the time of preparation of bids. The successful Bidder will be required to provide these securities in compliance with the requirements herein or as acceptable to the Employer.

FORM OF BID SECURITY

To :(Name and Address of the Employer)
WHEREAS, [name of bidder]
(hereinafter called and referred to as the "Bidder") has submitted its bid dated
[date] for the Construction of the Proposed Multipurpose Building for the Faculty of
Humanities & Social Sciences and Services Departments of the University of Sri
Jayewardenepura (hereinafter called and referred to as "the Bid").

KNOW ALL PEOPLE by these presents that WE [Name of
Organization] having our registered office at (hereinafter called and
referred to as the "Guarantor"), are bound unto[name of Employer] (hereinafter
called and reoffered to as "the Employer") in the sum of Sri Lanka Rupees
.....for which payment well and truly to be made to the said
Employer, the Guarantor binds itself, his successors, and assignees by these presents.

SEALED with the Common Seal of the said Guarantor this day of
200....

THE CONDITIONS of this obligation are:

1. If the bidder withdraws his Bid during the period of bid validity specified in the Bidding documents; or
2. If the bidder refuses to accept the correction of errors in its bid; or
3. If the bidder, having been notified of the acceptance of its Bid by the Employer during the period of bid validity fails or refuses to:
 - (a) execute the Form of Contract Agreement; or
 - (b) furnish the Performance Security, in accordance with the Instructions to Bidders

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

This Guarantee will remain in force up to and including the date twenty-eight (28) days after the period of bid validity, and any demand in respect there off should be received by us no later than the above date.

DATE SIGNATURE OF THE GUARANTOR

WITNESS

.....
(Signature, Name, and Address)

SEAL

Notes on Form of Letter of Acceptance

The Letter of Acceptance will be the basis for formation of the Contract as described in Clause 33 of the Instructions to Bidders. This Form of Letter of Acceptance should be filled in and sent to the successful bidder only after evaluation of Bids and after obtaining approval from the relevant authority.

FORM OF LETTER OF ACCEPTANCE

..... [date]
[LETTER HEADING PAPER OF THE PROCURING ENTITY]

To:
[name and address of the Contractor]

This is to notify you that your bid dated [insert date] for the construction and remedying defects of the
[name of the Contract and identification number] for the Contract price of
[name of currency¹] [amount in figures and words] as corrected in accordance with Instructions to Bidders and / or modified by a Memorandum of Understanding², is hereby accepted.

The adjudicator shall be [name and address of the adjudicator, if agreed] / shall be appointed by the Construction Industry Development Authority (CIDA)³.
You are hereby instructed to proceed with the execution of the said Work in accordance with the Contract documents.

The start Date shall be: [fill the date as per Conditions of Contract].
The amount of Performance Security is: [fill the amount as per Conditions of Contract].

The Performance Security shall be submitted on or before [fill the date as per Conditions of Contract].

Authorized Signature:

Name and title of Signatory:

Name of Agency:

FORM OF CONTRACT AGREEMENT

This AGREEMENT, made the [day] of [month] 200.... [year] between [name and address of Employer] (hereinafter called “the Employer”) of the one part and [name and address of Contractor] (hereinafter called “the Contractor”), of the other part.

WHEREAS the Employer desires that the Contractor execute [name and identification no of Contract] (hereinafter called “the “Works”) and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

He Employer and the Contractor agree as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to,
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion the Works and the remedying of defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents attached hereto shall be deemed to form an integral part of this contract
 - a. Invitation for Bids
 - b. Section I - Instruction to Bidders
 - c. Section III - Conditions of Contract
 - d. Section V – Standard Forms
 - e. Section II - Bidding Data
 - f. Section IV – Contract Data
 - g. Section VI – Employer’s Requirements
 - h. Section VII (a) – Forms of BID
 - i. Section VIII (a) – Schedules
 - j. Section VII (b) – Form of Design and Technical Proposal
 - k. Section VII (c) – Form of Price Proposal
 - l. Section VIII (c) – Schedules related to Price Proposals

IN WITNESS whereof the parties hereto have caused this Agreement to be executed the day and year aforementioned in accordance with laws of Sri Lanka.

.....
 Authorised Signature of Contractor
 SEAL

.....
 Authorised Signature of Employer
 SEAL

In the Presence of:

1. Name and NIC No
 Signature
 Address

2. Name and NIC No
 Signature
 Address

**FORM OF PERFORMANCE GUARANTEE
(Unconditional)**

NUMBER:

DATE:

SUM GUARANTEED:

To : ----- *[Name of Employer]* (hereinafter called and referred to as
“the Employer”) ----- *[Name and Address of Employer]*

Whereas ----- *[name and address of Contractor]*
(hereinafter called and referred to as “the Contractor”) has undertaken, in pursuance of
contract no. ----- dated to execute *[name of*
contract] (herein after called and referred to as “the Contract”).

And Whereas it has been stipulated by the Employer in the said Contract that the Contractor
shall furnish the Employer with a Guarantee issued by a recognized organization for the
specified therein as security for compliance with its obligations in accordance with the
Contract;

And Whereas we have agreed to give Contractor such a Guarantee;

Now Therefore we hereby affirm that we are the Guarantor an responsible to you, on behalf
of the Contractor, up to a total of Rupees ----- *[amount of*
guarantee] ----- *[amount in words]*, such sum being payable in the type and
proportions of currencies in which the Contract Price is payable . and we undertake to pay the
Employer, upon the Employer’s first written demand and without cavil or objection, any sum
or sums within the said amount as aforesaid without the Employer’s needing to prove or to
show grounds or reasons for the Employer’s demand for the sum specified therein.

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

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

This guarantee shall be valid until the date of issue of the Performance Certificate.

Signature and the Seal of the Guarantor :

Name of the Organization :

Address :

Date :

Witness :

FORM OF GUARANTEE FOR MOBILIZATION ADVANCE PAYMENT

NUMBER:

DATE:

SUM GUARANTEED :

To : ----- *[Name of Employer]* (hereinafter called and referred to as
“the Employer”) ----- *[Name and Address of Employer]*

Name of the contract

In accordance with the provisions of the Conditions of Contract, Sub Clause 14.2 (Advance Payment) of the above mentioned contract -----
[name and address of Contractor] (hereinafter called and referred to as “the Contractor”) shall deposit with the Employer a guarantee acceptable to the Employer to guarantee his proper and faithful performance under the said Contract in and amount of
[amount of guarantee] *[amount in words]*

We, the ----- *[name and address of the organization]*, as instructed by the contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Employer on his first demand without whatsoever right of cavil and objection on our part and without the Employer’s needing to prove or to show grounds or reason for the Employer’s demand for the sums specified therein and without his first claim to the Contractor, in the amount not exceeding Rupees*[amount of guarantee]* *[amount in words]* such amount to be reduced periodically by the amounts recovered by the Employer from the proceeds of the contract.

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

No drawings may be made by the Employer under this guarantee until we have received notice in writing from the Employer that an advance payment of the amount listed above has been paid to the Contractor pursuant to the Contract.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Contractor under the Contract until the Employer receives full repayment of the same amount from the Contractor.

Signature and the Seal of the Guarantor :

Name of the Organization :

Address :

Date :

Witness :

FORM OF RETENTION MONEY GUARANTEE

NUMBER :

DATE:

SUM GUARANTEE:

To : ----- *[Name of Employer]* (hereinafter called and referred to as
“the Employer”) ----- *[Name and Address of Employer]*

Whereas, it has been stipulated by the Employer in clause 14.7 of the Contract that he would release to the contractor the full sum mentioned under the contract in pursuance of clause 14.7 , on the contractor furnishing an unconditional guarantee acceptable to the Employer to the full value of the retention money, valid up to 28 days beyond the end of the Defects Notification Period.

We *[name and address of the Guarantor]* as instructed by the Contractor, unconditionally and irrevocably, guarantee to pay the Employer upon the Employer’s first written demand and without cavil or objection, any sum or sums within the said amount as aforesaid without the Employer’s needing to prove or to show grounds or reasons for the Employer’s demand for the sum specified therein and the said amount of Rupees..... *[amount of Guarantee]* *[amount in words]* in the event the contractor fails to carry out his obligations to rectify defects which is responsible to rectify under the contract.

This guarantee shall be valid up to *[date]*

Signature and the Seal of the Guarantor:

Name of the Organization:

Address:

Date:

Witness:

VOLUME 1B

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INVITATION FOR BIDS (IFB)

UNIVERSITY OF SRI JAYEWARENAPURA



Invitation for Bids

ESTABLISHMENT OF THE ALLERGY, IMMUNOLOGY AND CELL BIOLOGY UNIT AFFILIATED TO THE UNIVERSITY OF SRI JAYEWARNENEPURA IFB No: CW/PRO/FMS/03/2019

1. The Chairman, Ministry Procurement Committee (MPC) on behalf of the Vice Chancellor, University of Sri Jayewardenepura invites sealed bids from eligible and qualified bidders for **Establishment of the Allergy, Immunology and Cell Biology Unit Affiliated to the University of Sri Jayewardenepura** as described below and estimated to cost Rs.186 Million excluding VAT.

The work consists of preparation of schematic design, detail design, preparation of specifications, construction and remedying defects during the defects liability period of the multi-storey building with suitable foundations including all necessary services and external works and car park *as indicated in the Bidding Document. The total construction period is 18 months.*

2. Bidding will be conducted through National Competitive Bidding procedure (Procurement Guideline 3.2).
3. Bids are invited from eligible Design & Build contractors with CIDA registration grade C-3 or above– Building Construction. Those eligible bidders shall comply with the qualifications mentioned in the bidding data.
4. Interested bidders may obtain further information from Project Manager, Capital Works & Planning Division, University of Sri Jayewardenepura, Gangodawila, Nugegoda – Telephone 011-2758211, Fax – 011-2802819 and inspect the bidding documents at the address given above from 8.30hrs to 16.30hrs.
5. A complete set of bidding documents in English language may be purchased by interested bidders upon submission of a written application to the Assistant Registrar, Capital Works & Planning Division, University of Sri Jayewardenepura from **24th September 2021** until **11th October 2021** from 8.30hrs to 14.30hrs and payment of a non-refundable fee of **Rs. 35,000.00** to the Shroff of the University or directly deposit

cash to the People's Bank A/C No. 097 1 001 6 2315454 (Gangodawila Branch). The Bidder can also download the Bidding Document from the University Website: www.sjp.ac.lk. Those who are obtaining bidding document from the University website should submit the completed documents along with the original of the cash receipt deposit slip. A copy of payment deposit slip together with a contact number of the bidder should be send via email to the address of capitalworks@sjp.ac.lk.

6. **Bids shall be delivered in duplicate to the office of Director (Infrastructure Development), Higher Education Division, Ministry of Education, No. 18, Ward Place, Colombo 07.** not later than **11.00 hrs** on **16th December 2021**. Late bids will be rejected. The Technical Proposal of bids will be opened soon after the closing of bids. Bidders or their authorized representatives are requested to be present at the opening of bids.
7. Bids shall be valid up to **14th April 2022**
8. Each bid shall be accompanied by a Bid Security of Rupees. **3,000,000.00**. Bid Security shall be valid up to **12th May 2022**.
9. The pre-bid meeting will be held at **10.00 hrs** on **13th October 2021** at **Board Room of the Administrative Building, University of Sri Jayewardenepura**.

Vice Chancellor

University of Sri Jayawardenepura.

Date: 23.09.2021

Section - II

BIDDING DATA

Note :

This section shall be read in conjunction with Section I –

Instruction to Bidders, and is intended to provide specific information in relation to corresponding Clauses in Section I. Whenever there is a ambiguity, the provisions in Section II- Bidding Data shall supersede these in the Section I- Instructions to Bidders.

Bidding Data

Instructions to Bidders Sub Clause		
Item	Sub Clause	Entry
Employer's name and address	1.1 & 9.1	<p>The Employer is Name: The Vice Chancellor Address: University of Sri Jayewardenepura, Gangodawila, Nugegoda</p>
Scope of Works	1.1	<p>The Works consists of preparation of schematic design, detail design, preparation of specifications, construction and remedying defects during the defects liability period of buildings with suitable foundations or otherwise where necessary including all necessary services, external landscaping and car parking as stated in the Employer's Requirements The approximate total gross floor area of the buildings required is 1650 m² and the Total Cost Estimate (TCE) including design and supervision charges, construction cost of buildings and infrastructure facilities is Rs.186 Million excluding VAT. Located at University of Sri Jayewardenepura, Gangodawila, Nugegoda.</p>
Time of Completion	1.2	The time for Completion for the whole of Works shall be 18 months.
Delay damages for the Works	1.2	<p>The delay damages for the whole of the Works shall be 0.05% of the initial Contract Price per day The maximum amount of delay damages for the whole of the Works shall be 10% percent of the Initial Contract Price.</p>
Defects Notification Period	1.2	Defects Notification Period is 365 Days from Employer's Taking over
Source of funds	2.1	The source of funds is the Government of Sri Lanka
CIDA registration required	3.1	<p>The registration required Specialty – Buildings Construction Grade – C-3 or above</p>
Eligible bidders	3.4	Foreign bidders are not allowed.
Qualification Information	3.1, 3.2 4.1	<ul style="list-style-type: none"> • CIDA Registration Registration number Grade Specialty Expiry Date • NCCASL membership Number Expiry Date • VAT Registration number • Attach Construction Programme • Attach Legal Status (Sole proprietor, Partnership, Company etc.)

		<ul style="list-style-type: none"> • Attach power of attorney • Attach authentication for signatory • Total monetary value of construction work performed for each of the last five years; • Experience in works of similar nature and size in minimum 1 project completed within 5 years. • Construction equipment; • Staffing • Attach Work Plan and methods; • Attach certified copies of financial statements of the organization such as audited accounts to facilitate for evaluation of financial stability such as turnover. liquid assets, liabilities, working capital etc.
Average annual volume of construction work performed in last five years	4.3(a)	Average annual volume of construction work performed in last five years shall be at least Rupees 186,000,000.00 (Audited financial statements of 2016,2017,2018,2019,2020 should be submitted along with the bid)
	4.3 (b)	Experience as prime contractor in the construction of at least one work of a nature and complexity similar (at least RCC three storied non residential building work including medical laboratory cost of Rs 150Mn) to the works over the last 5 years. (to comply with this requirement, works cited should be at least 70% complete)
Liquid assets and/or credit facilities required	4.3 (g)	The minimum amount of liquid assets and/or credit facilities net of other contractual commitments and exclusive of any advance payments which may be made only under this contract shall be not less than Rupees 30 Million.
Bid Price	13.3	All the Tax components other than VAT shall be included in the rates. VAT component shall not be included in the rates. The amount written in the Form of Bid shall be without VAT. However VAT component shall be shown separately at the end of the price schedule summary.
Contract is subject to price adjustment for fluctuation of prices	13.4	The Contract is not subject to any price adjustment for fluctuation.
Currency of Bid	14.1	The currency of the bid price shall be only in Sri Lankan Rupees.
Bid validity period	15.1	The Bid shall be valid up to 14.04. 2022
Amount of Bid security	16.1	The amount of Bid security shall be Sri Lanka Rupees 3,000,000.00
Validity of Bid security	16.2	The Bid security shall be valid up to 12.05.2022 Bid security should be obtained only from a

		commercial bank operating in Sri Lanka registered under CBSL or from CGF.
Pre-Bid meeting	17.1	Pre-bid meeting will be held at: Venue : Board Room of the Administrative Building, University of Sri Jayewardenepura. Gangodawila, Nugegoda. Date: 13.10.2021 Time: 10.00 hrs.
Sealing and marking of Bids	19.2	The following information also shall be included in the inner covers of envelope marked as “Envelope 1 – Preliminary Information”: (i) Schedule,” Annual turn-over Information”, (ii) Schedule, “ Adequacy of Working capital”, (iii) Schedule, “ Design experience in last five Years”, (iv) Schedule, “Construction experience in last five Years”, (v) Schedule, “Major items of construction equipment proposed”, The following information also shall be included in the inner covers of envelope marked as “Envelope 2 – Design / Technical Proposal”: (i) Schedule, “Team composition and Task assignment”, (ii) Curriculum vitae of key staff; (iii) Schedule, “ Time schedule for key staff”, (iv) Work Program (Design related activities); (v) Work Program (Construction related activities);
	19.4	The following information also shall be included in the inner covers of envelope marked as “Envelope 3- Financial Proposal”, (i) Day work rates schedule; (ii) Schedule, “Overhead and profit percentage for Provisional Sum activities” (iii) Schedule, “ Input percentage for price adjustments”
	19.5 (a)	The Employer’s address for the purpose of Bid submission is Director-Procurement, Higher Education Division, Ministry of Education, No. 18, Ward Place, Colombo 07.
	19.5 (b)	Contract Name: Establishment of the Allergy, Immunology and Cell Biology Unit Affiliated to the University of Sri Jayewardenepura Contract No: CW/PRO/FMS/03/2019
Deadline for submission of Bids	20.1	The deadline for submission of Bids shall be 11.00hrs of 16.12.2021. Address for submission of Bids: Director (ID), Higher Education Division, Ministry of Education, No. 18, Ward Place, Colombo 07.
Evaluation and comparison of Bids	27.0	For evaluation and comparison of Bids OPTION B is selected.
	27.1	Weight for Design/Technical Proposal Shall be:

DT = 25%

Weight for Price Proposal Shall be:

P = 75%

Correction of Errors **28**

Procurement Guideline 2006 is applicable

Amount of Performance Security **32.1**

The standard form of Performance Security acceptable to the Employer shall be a bank guarantee **only** from a commercial bank operating in Sri Lanka registered in CBSL

Percentage of retention **34.1**

The amount of Performance Security is 5% of the Initial Contract Price.

The retention from each payment shall be 10% percent. The limit of retention shall be 5% percent of the Initial Price.

Minimum amount of Interim Payment Certificates **34.2**

1.00% of Initial Contract price.

Adjudicator proposed by Employer **(35.1)**

The Adjudicator proposed by the Employer shall be nominated at the occasion.

If the Bidder disagrees with the proposal of the Employer or the Adjudicator was not proposed, then the Adjudicator shall be appointed by the Appointing Authority who shall be the Construction Industry Development Authority (CIDA)

Fees and types of reimbursable expenses to be paid to the Adjudicator shall be on a case basis and shall be shared equally by the Contractor and the Employer:

Section - IV

CONTRACT DATA

Note:

This section shall be read in conjunction with section III- Conditions of Contract, and is intended to provide specific information in relation to corresponding Clauses in section III. Whenever there is an ambiguity, the provisions in section IV – Contract Data shall supersede those provided in the Section III – Conditions of Contract.

Data

Sub Clause 1.1.2.2

Employer is: Vice Chancellor,
Address: University of Sri Jayewardenepura,
Gangodawila,
Nugegoda.

Sub Clause 1.1.2.4

Engineer is: Project Manager,
Address: University of Sri Jayewardenepura,
Gangodawila,
Nugegoda.

Employer reserves the right to support the Project Manager of the University by appointing the additional personnel for the project if and when necessary.

Sub Clause 3.1

Engineer's Duties and Authority

The Engineer shall obtain the specific approval of the Employer before taking action under the following Sub Clause of these Conditions:

- (a) consenting to the subletting of any part of the Works under Sub Clause 4.4 (b);
- (b) approving an extension of the Time for Completion, and/or any additional payments under Sub Clause 19.1 (*contractor's claim*) issuing variation under Sub Clause 13.1 (*Right to vary Employer's Requirements*), except in an emergency situation, as reasonably determined by the Engineer.
- (c) Approving additional payment under Sub Clause 13.3

Notwithstanding the obligation, as set out above, to obtain approval, if in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibilities under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13.3 and shall notify the Contractor accordingly, with a copy to the Employer.

The Project Manager/Engineer to the Contract shall have the following responsibilities as well.

- Engineer shall approve selected materials to the project.
- Engineer shall retain the right to conduct independent tests for materials used at site

Sub Clause 4.1 Contractor's General Obligations

Key personnel

Schedule of Key Personnel:

Names with qualifications and experience to be written:

(a) Project Management

- Team Leader/Project Director –
Should be a Chartered Architect or a Chartered Civil Engineer having at least 15 years' experience in construction industry especially in building construction.

(b) Design Team

The Design of the buildings should be carried out by an institution

which has 5 years' experience in carrying out planning, designing and implementation of projects over 200 million and should have the following **in house personnel**.

- Project Architect –
Should be a Chartered Architect having at least 10 years' experience in design of multi storey buildings in similar value and nature
- Structural Engineer -
Should be a Chartered Civil Engineer having at least 10 years' experience in design of multi storey buildings in similar value and nature.
- Resident Engineer (Design)-
Should be a BSc. Civil Engineer having at least 3 years' experience in multi storey buildings in similar value and nature and shall be based full time at the site.
- Quantity Surveyor -
Should be a Qualified Quantity Surveyor having at least 5 years' experience in multi storey buildings in similar value and nature.
- MEP Engineer -
Should be a Chartered Electrical/Mechanical or Electro-mechanical or Buildings Service Engineer having at least 5 years' experience in design of Mechanical Engineering/Service installations (like elevators, air-conditioning, water supply, sewer disposal, waste water disposal and treatment) in multi storey buildings in similar value and nature.
- Interior Designer
Should be an Interior Architect/Interior Designer having at least 10 years' experience in design of multi storey buildings in similar value and nature.
- Laboratory Designer
Should be a Laboratory Designer having at least 15 years of experience in bio-medical design of multi storey buildings in similar value and nature.

(d) Construction Management -

- Construction Manager/Resident Engineer –
Should be a Chartered Civil Engineer having at least 10 years' experience in construction of (site organization, supervision, contract administration, monitoring, planning) multi storey buildings in similar value and nature and shall be based full time at the site.
- Project Engineer –
Should be a BSc. Civil Engineer having at least 05 years' experience in construction of multi storey buildings in similar value and nature and shall be based full time at the site.

- Quantity Surveyor –
Should be a BSc. Quantity Surveyor with 05 years of experience in multi storey buildings in similar value and nature and shall be based full time at the site.
- Surveyor –
Should be a Licensed Surveyor having at least 05 years' experience in setting out of multi-story buildings in similar value and nature and shall be based at the site as and when necessary.
- Technical Officers – 02 Nos
Should be Technical Officers with qualification of National Diploma in Technology or equivalent having at least 10 years' experience in construction of multi-story buildings in similar nature and shall be based at the site as and when necessary.

Members of the Project Management Team and the Design Team shall be generally available for all progress meetings and shall be available on request of the Engineer to the project.

Sub Clause 4.2

Performance Security

The performance Security shall be 5% percent of the Initial Contract Price.

The Standard Form of Performance Security acceptable to the Employer shall be a Bank Guarantee obtained from a commercial bank operating in Sri Lanka registered under CBSL.

Sub Clause 8.1

Commencement of Work 8.1

Start Date:

The Start Date is within 14 Days from the date of issue of the Letter of Acceptance.

Sub Clause 8.2

Time for Completion

The time for completion for the whole of Works shall be 18 months.

Sub Clause 8.7

Delay Damages

The Delay Damages for the whole of the Works shall be 0.05% of the Initial Contract Price per day.

The maximum amount of Delay Damages for the whole of the Works shall be 10% percent of the Initial Contract price.

Sub Clause 11.1

Defects Notification Period

Defects notification Period is 365 Days from the date of Taking – over Certificate.

Sub Clause 13.7

Adjustments for Changes in Cost

Contract is **not subjected** to price adjustments for fluctuation of prices.

Sub Clause 14.1

Contract Price

The Works described under Day Works is to be paid according to quantity supplied or work done.

Sub Clause 14.3 (c)

Retention Money

The retention from each payment shall be 10 percent

The limit of retention shall be 5 percent of the Initial Contract Price.

Sub Clause 14.4

Issue of Interim Payment Certificates

Minimum amount of Interim Payment Certificates shall be 2.50% of

- Sub Clause 14.7** Initial Contract price.
Payment of Retention
On reaching the limit of retention stated in Contract Data the Contractor may substitute full retention money with an unconditional guarantee acceptable to the Employer to a value equal to the full retention money, and valid up to 28 days beyond the end of defect Notification Period. On receipt of such guarantee the Employer shall repay the full retention money. The guarantee will be released to the Contractor upon the certification of the Engineer that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.
- Sub Clause 19.2 & 19.4** **Failure to agree/Dispute Adjudicator**
The appointing entity for appointing the Adjudicator is the Construction Industry Development Authority (CIDA)

Section - VI

EMPLOYER’S REQUIREMENT

1 BACKGROUND OF THE PROJECT

1.1 University of Sri Jayewardenepura (Procuring Entity)

The University of Sri Jayewardenepura is located at Gangodawila, Nugegoda in Colombo District. The main premise of the University is a 55 acres land facing to Sri Soratha Mawatha from Egodawatta Junction to Wijerama Junction. It is the largest state owned University in Sri Lanka in terms of student population which has more than eleven thousand internal students. It was established by upgrading former “Vidyodaya Pirivena” to a University state by a Parliamentary Act in 1958. Vidyodaya Pirivena was a leading Buddhist education institution in Sri Lanka at that time and its Buddhist culture is the key identification mark of the University of Sri Jayewardenepura even at now.

At present following 8 faculties have been established there,

- i. Faculty of Humanities and Social Sciences
- ii. Faculty of Applied Sciences
- iii. Faculty of Management Studies and Commerce
- iv. Faculty of Medical Sciences
- v. Faculty of Graduate Studies
- vi. Faculty of Engineering
- vii. Faculty of Technology
- viii. Faculty of Allied Health Sciences

The oldest Faculty of the University is the Faculty of Arts and it was re-named as the Faculty of Humanities and Social Sciences in year 2011. Faculty of Applied Sciences is the first Faculty in Sri Lanka which is designed to teach applied science based course streams instead of traditional pure science teaching. The largest Management Education Faculty in Sri Lanka is the Faculty of Management Studies and Commerce of the University of Sri Jayewardenepura and it registers more than 1000 students annually who are the best A/L students all over the country in commerce stream.

Faculty of Medical Sciences is established in 1993 and it is also designed to provide not only pure MBBS degree programs but other medicine related degree programs like Nursing, Pharmacy and MLT. Faculty of Graduate Studies provides Postgraduate Diplomas, Master and PhD programs for various disciplines.

1.2 Faculty of Medical Sciences

1.2.1 Introduction

Faculty of Medical Sciences (FMS), University of Sri Jayewardenepura (USJP) is one of the eight medical schools in Sri Lanka and its mission is to be a center of academic and professional excellence in providing human resources of the highest quality, service of the highest standards and research on health care of the highest quality, and to disseminate knowledge on health.

An intake of medical and other allied health sciences undergraduates in the range of 150 – 250 are enrolled each year and at a time there are around 1000 – 1500 students within the faculty. There are 16 academic departments manned by around 120 permanent (academic), 66 temporary (junior) and 160 non-academic staff members.

The FMS, USJP is currently housed in two buildings at present; the anatomy block and phase IV building (figure 1).



Figure 1

The proposed site is **around 30 perchas** extent bordering the Egodawatta road.

1.2.2 Introduction to the Project

The FMS, USJP is one of the fastest growing faculties in the country and is increasingly asked to take in more students, study courses and international collaborations. To facilitate this growth the University plans to invest to provide state-of-the-art teaching, research and support facilities for students and staff. This funding aims to deliver facilities equipped to serve the requirements of students and staff in the coming years.

The FMS phase IV building became an iconic landmark in the city that stands for the excellent culture of research, learning and teaching that it promotes and this can be used as an important tool in the marketing of the University to prospective students and researchers. The Faculty of Medical Sciences at the University of Sri Jayewardenepura has pioneered Immunology related education and research in Sri Lanka. We have established many immunology techniques for the first time in Sri Lanka and currently many such techniques are only available within our Faculty. In addition, we have conducted many training and educational programs in Allergy, Immunology and Immunology techniques (workshops of flow cytometry, Real time PCR, sequencing, and imaging). Therefore, we are in a strong position to establish such a department and cater for the requirements of our country in both undergraduate and postgraduate teaching, training and research.

We also have established a state-of-the-art allergy clinic in the Faculty, and we are the only government institute where allergy testing in the form of in vitro diagnostics and skin prick tests are available.

There are several academic staff members within the faculty who have expertise in immunology and molecular medicine and can contribute to the university and to the whole country by establishing a department for this discipline. They have already trained many other academic, nonacademic staff members, research students and are involved in postgraduate training of those who are registered for various degrees at the Post Graduate Institute of Medicine. In addition, they have been involved in teaching and training many individuals on a wide range of immunology techniques, which are only established within the Faculty and are not available elsewhere in the country.

The faculty is in a strong position to establish this state of art laboratory in order to develop medical research in Sri Lanka. Many of the Universities in other developed countries are leading in the fields of Science and Technology and produce global experts and leaders in the fields of Immunology and Molecular Medicine. With investments in science and technology,

countries like South Korea and Singapore has developed into a scientific hub. Therefore, we believe that investment for a state of art laboratory for research would enable us to develop Sri Lanka in knowledge-based economy.

The proposed building is four storey building, including ground floor and three upper floors which should illustrate a combination of modern architecture. Generally, the building should have open access from all fronts and should retain the sense of identity reminiscent of the Face IV Building as well, while having a modern, welcoming and sophisticated ambience.

The building and the surround shall be designed completely obeying to the Green Building Guidelines published by the Sri Lanka Government in January, 2017.

1.3. Space Requirement

1.3.1. Main Functional areas

The building should provide spaces for following categories of functional areas.

1. Allergy/ Immunology and Autoimmune disease clinic
2. State of Art Laboratory

Basic requirements of the building is given below.

Requirement	Nos.	Appx. Size (m ²)	Total Floor Area (m ²)
1. Ground Floor			338
1.1 Waiting area	01	100	100
1.2 Reception & Office	01	25	25
1.3 Wastage Room	01	10	10
1.4 Clinic Room	02	15	30
1.5 Phlebotomy Room	01	20	20
1.6 Locker Room	01	19	19
1.7 Store	01	19	19
1.8 Library	01	35	35
1.9 Visitor area	01	25	25
1.10 A –Washroom	01	5	5
1.11 B – Washroom	01	10	10
1.12 Liquid nitrogen facility	01	20	20
1.13 Immunotherapy room	01	20	20
2. First Floor			339
2.1 Research Head (A)	01	20	20
2.2 Research Head (B)	01	20	20
2.3 Pantry	01	16	16
2.4 Research Head	01	16	16

2.5 Scientist	01	16	16
2.6 Store	01	16	16
2.7 Imaging Facility	01	35	35
2.8 Wet Laboratory	01	30	30
2.9 Tissue Culture Laboratory	01	40	40
2.10 Virology Laboratory	01	25	25
2.11 Allergy Laboratory	01	40	40
2.12 Video Conference/Board Room	01	40	40
2.13 C – Washroom	01	10	10
2.14 D – Washroom	01	10	10
2.15 E – Washroom	01	5	5
3. Second Floor	354		
3.1 Research Head (A)	02	20	40
3.2 Pantry	01	16	16
3.3 Research Head (B)	02	16	32
3.4 Store	01	16	16
3.5 Technical Officer	01	20	20
3.6 Lab Attendant	01	20	20
3.7 Wet Laboratory	01	40	40
3.8 Molecular Biology + PCR	01	40	40
3.9 Store	01	30	30
3.10 Think Tank	01	35	35
3.11 Wet Laboratory	01	40	40
3.12 F – Washroom	01	10	10
3.13 G – Washroom	01	10	10
3.14 H – Washroom	01	5	5
4. Third Floor	326		
4.1 Common Room	01	40	40
4.2 Pantry	01	16	16
4.3 Stores	01	16	16
4.4 Office	01	16	16
4.5 Medical Officer	01	16	16
4.6 Student Room -I	01	32	32
4.7 Student Room -II	01	30	30
4.8 Seminar Room (Auditorium)	01	75	75
4.9 Computer Lab	01	35	35
4.10 Visitor Room	01	25	25
4.11 I - Washroom	01	5	5
4.12 J - Washroom	01	10	10
4.13 K - Washroom	01	10	10
Total Area W/O Circulation and service provisions	1357		
Allow for Circulation and service provisions	293		
Total Gross Area of the Building	1650		

1.4. Special Requirement

Visual impact

The proposed building should have a modern, light, welcoming and sophisticated ambience with a “sense of place”. Excellent functional design is required to support a wide range of uses and to facilitate effective learning, inspiration and discovery although designated areas will be available for group work, for teaching, for seeking the help of staff and for social interaction.

As it will be the main FMS research building in Allergy and Immunology it should have a welcoming and open access from the road in order to be “recognizable” as a world class research laboratory at FMS, USJP.

As there are a number of existing buildings in the vicinity an attempt should be made to create an extension or seamless integration with these existing structures as much as possible. The new building however, should have its unique identity.

Organization

The design must bring clarity and coherence to the organization of departments, facilities and services. Careful consideration should be given to “way finding” so that minimal signing and guiding is required and space must be efficiently planned keeping in mind the need for networking, Wi-Fi access and student movement within different areas.

The design of the building should be inherently secure with only one entry and exit point for users. Separate staff lift/s should be provided to avoid busy public/student areas. It must be possible to close off floors to allow minimally supervised access to the remaining areas 24 hours a day, 7 days a week.

The building will be high rise structure and therefore should organize public areas and limited access areas. The building must be capable of handling large numbers of people per day. Visits peak from late morning to early afternoon. Public circulation areas and the number of lifts and toilets need to be adequate for the anticipated level of use. Account should be taken of the need to maneuver large equipment around laboratory areas around and within the building.

The building should provide following facilities also;

i. Roof top

The Faculty of Medical Sciences has several ongoing national and international research projects. The human resources in the Faculty have many international efficiencies and it is envisage that many international conferences would be held in the unique building. Therefore necessity of roof top terrace (partially open) to have such some gatherings of eminent people is considered as important component in the final design. The roof slab shall be waterproof and heatproof.

ii. Vehicle Park

Vehicle Park for parking 20 vehicles should be provided blending with aesthetic appearance of the structure and landscaping of the existing phase IV building.

iii. Reception

There should be a spacious, uncluttered lobby area with a reception/security stations. This area must be capable of absorbing those entering the building and up to 50 persons at a time. From outside, the entrance must be clear and inviting with attention to the visual appearance for those approaching the building and those looking out from it. The internal entrance area must combine strong visual impact with functionality. It must be possible for visitors to see a person who can help them as soon as they enter the building.

The reception should also have, not directly visible to the outside; an area for goods, post receiving and sorting with pigeon holes for departments/offices, shelving for temporary storage of items awaiting transfer to store. Space for trolleys and trucks and a convenient access to the staff lift.

iv. Common student and staff facilities

The new building should offer study and learning facilities for an increasing number of students through efficient space utilization, networked and linked resources and personal study spaces. Also it should support the staff in performing their functions effectively and efficiently in modern pleasing work environment that is conducive to long hours of individual and collective work.

v. Video conferencing facility/ board room

A conference room to hold important research faculty meetings with a seating capacity of 20 should be designed. This facility should be located separately from the laboratory area so that all departments and students have easy access to it with minimal disturbance to the laboratory. Thus it must be located so that the noise and disturbance created from the movement of large numbers of students would not hamper the smooth functioning of the laboratory.

Entry and exit routes from the halls should be arranged in a manner as to avoid paths crossing over and to avoid congestion. This should enable controlled entry and exit for events that need monitored admission.

It must also be usable as a Centre to host international meetings and to be capable to equip with audio-visual equipment (for delivering, teleconferencing), lighting, air-conditioning, support staff areas, lobby/waiting. Adequate numbers of toilets should be placed in a close accessible location, however designed and placed appropriately so as to prevent disturbance of proceedings in the halls.

This should have a tiered, arrangement of seating so that everyone has a good view of everyone and everything. The lecturing/stage area should provide for a single lecturer as well as a group of presenters and resources to use at once and should have storage facilities for multimedia and other equipment that needs to be under lock and key as well as cleaning equipment etc. that needs to be kept out of sight.

vi. Think Tank

Think Tank should accommodate 25 students at a time and 1-2 resource persons. They should be located on a top floor to enable shared use within the laboratory staff and students. The rooms should have provision to fix white boards, tables and chairs in a conference arrangement rather than a class room seating structure.

vii. Service areas

Both video conferencing room and the think tank need to be supported with toilets, wireless internet access and networked computers, audio visual equipment (wall mounted video monitor and player, camera or video monitor and camcorder) screen, a photocopying point and provision for serving snacks and beverages so that international level workshops can be held within the laboratory premises..

viii. A clinic for non-residential care, day care allergy services

A clinic for non-residential care, day care allergy services, and other curative and preventive services to be used as a service area as well as a teaching facility.

This should be a referral centre for allergy, Immunology and auto immune diseases for the community. At present this is served by the Family practice centre which provides outpatient care to the local population. This facility will be extended to include immunotherapy.

A clinic with a modern, friendly and welcoming ambience and accessible from the main entrance is to be designed. There should be a spacious waiting area which is able to accommodate up to 50 patients at a time with smooth entry and exit routes into different areas of the clinic. The flow of patients from each area of the clinic should be arranged in a smooth flow so as to not disturb the other areas and should be able to restrict access to less used/specialized areas.

The clinic is arranged in a number of different sections including -

- (i) Consultation rooms
- (ii) Phlebotomy room
- (iii) Emergency room / Immunotherapy room

This should be designed to ensure easy access from the main road (preferably at ground level) with access for emergency patients/ambulances.

Waiting areas should have adequate toilets for patient's use and separate facilities for staff meals and toilets.

Note: Clinic area should be antibacterial surface.

ix. Common laboratory

The equipment and resources of the National center for Primary Care and Allergy Research and Center for dengue research will be relocated to provide an extensive range of laboratory facilities for diagnostics and postgraduate research. It is proposed to have a well-equipped research laboratory of international standards for Allergy and Immunology research and to invite local and foreign researchers to conduct their laboratory work.

The area should be designed to house large amounts of equipment and provide work areas/stations for staff according to the standard safety requirements for laboratories.

The following common areas to be designed so as to enable use by all laboratory staff

1. Wet lab I
 2. Tissue Culture LAB
 3. virology lab
 4. Chemical lab
 5. Allergy laboratory
 6. Imaging facility room
 7. Flow cytometry facility
 8. Wet lab II
 9. Molecular biology +PCR
 10. Storage areas for plastics, storage area for chemicals, room for -80 C freezer and liquid nitrogen (for IF), wash room, autoclave room, glass ware and washable plastic store room.
- Design of All Laboratory Furniture and equipment's and preparation of specification and layouts are included into the scope of work.

x. Liquid nitrogen facility

A separate area for liquid nitrogen storage should be made in the ground floor. Storage vessels are classed as pressure vessels and must meet the requirements of AS2030. They should have an internal volume capacity of $\geq 50\text{L}$ and are used for bulk storage. In most cases, these are leased from the supplier and it is their responsibility to maintain the storage vessels in accordance with the standard.

Dewars are portable, double walled containers that are open-necked, free-venting and non-pressurised. Only dewars that meet AS 1894 should be used

xi. Common computer lab

A state-of-the-art computer/media lab with computers, screens and printing facilities provided in a common hall for supervised and unsupervised student use for up to 20 workstations. The computer lab should have staff rooms for one administrative staff and storage rooms for equipment. The administrative staff rooms should be placed to enable overseeing of proceedings in the student lab and provide technical support for the users.

The laboratory should have adequate space to enable easy access and movement of staff and students between the workstations without disturbing others.

xii. Student areas for study, group work and leisure

Group study areas and silent areas for individual reflective work must be allocated for students. Some informal seating should be provided; in study areas it should be arranged so that it does not encourage conversation. Separate areas for group work should be placed appropriately within and outside the building

In planning for future use these areas should enable Wi-Fi access. Provision shall be provide Computer, printing and photocopying facilities in these areas.

These areas must be accessible during evenings/times when administrative areas are closed up and must not disturb other quite areas of the building.

xiii. Seminar Room

A seminar room with 60 seating capacity which is echo free with tiered seat rows including control room, and the other furniture for conference activities (movable lectern, movable head table with seats), stage lighting arrangements, multi-media facilities sound systems, floor carpeting, 60 seats for the audience, curtaining and air-conditioning is envisaged as a turn-key basis.

xiv. Coffee room /common room

A coffee room to serve academic, non-academic, students and visitors should be conveniently placed in a location which gives ample space for consumption of foods in a user friendly environment.

An ambience of relaxation combined with intellectual stimulus is to be provided by the design, decor, outlook, furniture and fixtures/fittings, whilst being durable and practicable.

The facility should have adequate service facilities such as hand washing, waste disposal, toilets and designed with material that ensures easy and hygienic maintenance. Should be placed so that service facilities could be easily provided while ensuring minimal problems with garbage disposal, delivery of supplies and storage. There needs to be consideration given to the goods in and waste management routes to and from facility. The waste should not be transported through the other parts of the building.

An independent extract system of exhausting so as not to infiltrate the building with smells from the coffee room. The facility is to be secured with separate doors, when not in use, independently of the other areas.

xv. Research library

The Library should have a modern and welcoming ambience and should be primarily a place for individual learning, with a few designated areas for group work, and for seeking the help of staff. It should be designed to house books, journals, reports and computer based learning materials (CD/DV's), PC workstations, Wi-Fi access and excellent functional design is required to support a wide range of uses and to facilitate effective service delivery.

The design should encourage positive behavior and activity – study, seeking help, feeling welcome – and discourage less acceptable behavior in the library context such as gathering to chat, use of mobile phones (other than in designated areas).

It should be expandable with minimal structural changes as new books and materials are assimilated.

The design, equipping and furnishing of the building must enable library users with special needs to make optimum use of the full range of information resources, services and facilities.

The space should be arranged as 2 main divisions

i. For Books/Monographs/Reports

Following are the main requirements of books/monograph/report section.

(a) A Library counter/ circulation desk - for 01 assistants and 02 computers (internet access)

(b) An inquiry desk including assistant's table & chair, cupboards, four computer tables & chairs (On line searching of Library Catalogue – OPAC)

(c) Spiral book rack (display rack) for new acquisitions

(d) Reading area for 20 readers

(e) Space for 5 wooden book shelves – each 2100mm x 2000mm

ii. Periodicals/ E- Databases, special collections

The design of the library should be inherently secure with only one entry and exit point for Library users. The library should be easily accessible even after other areas of the building are closed in the evening. It should have WIFI access

xvi. Academic visitor room

Large archiving room with adequate storage spaces should be designed for foreign academic visitors use.

xvii. Administrative staff office

Admin office and its administrative staff should have adequate space located within easy access for both internal staff and external visitors. It should have stature of design and structure to reflect upon the dignity of the office.

A record room with adequate space for storage should be available close to the administrative offices.

A printing and production unit for printing of papers, manuals and books should be located in the same floor and some areas should be able to be closed off for printing of confidential materials. There should be adequate storage space and a staff room for the non-academic staff.

Photocopying areas, each to accommodate 2 copiers, should be provided with surfaces for users to place books for copying. Secure storage for paper and toner should be available in office area. There should also be ample provision for waste paper recycling bins and attention must be given to controlling noise from this activity.

xviii. Maintenance unit and stores

The building would require a small group of cleaning staff, janitors and equipment. There should be space for housing this equipment, lockers for workers belongings, changing rooms

and shower facilities for these staff. The stores should be large enough to store stationary, and office materials as well as laboratory consumables.

The design must include a covered ground level loading bay with access for delivery vans. The goods entry and exit area should not be a through route to other departments. This should be ideally placed on the ground floor with one entrance that is secure and have adequate ventilation, lighting and storage space to ensure the stored material are kept in good condition. It is essential that heavy and bulky goods can be delivered efficiently and conveniently unloaded. Externally there must be double doors for bulky deliveries and CCTV for monitoring the outside.

xix. Administration requirements

Individual staff rooms - Each room is to be fully equipped with power, light, data and voice connections, furniture and fittings for the proposed use. The construction is to allow for the space to be flexibly arranged suiting current and possible future uses of the academic staff.

Open office plans - Open plan areas must include partitioned work stations, space for staff lockers, storage and cupboard space, ample shelving and space for working from and for computers and printers.

Each suite will comprise of individual staff rooms for:

- i. Research heads room space for executive table (single work station) & chair, computer table and chair, 1-2 filing cabinets, 1 cupboard, 1 bookcase or relevant shelving, visitor chairs, notice board, dry wipe board.
- ii. Office rooms/space for administrative staff – can be an open office space with partitioned work space.
- iii. Space and surfaces for storing stationary, a range of papers and for dealing with other office administrative work should be provided.
- iv. Photocopying areas, each to accommodate 2 copiers, that can be shared or placed within individual departments should be provided on each floor with surfaces for users to place books for copying. Secure storage for paper and toner should be available in each area. There should also be ample provision for waste paper recycling bins and attention must be given to controlling noise from this activity.
- v. Storage rooms/archives are required for floor and these should be secure with adequate shelves and space for cupboards.
- vi. Each suite of offices should have its own small lobby area.
- vii. Common toilets for research head's rooms and adequate number of common for toilets for laboratory area.
- viii. Entrance Lobby floor finished should be 20mm thick marble/stone finish. Colour to be selected by the Interior Design Architect.

xx. Wash room

Wash rooms shall be less maintenance and all the fittings shall be best quality and low flow fittings to ensure the high water efficiency. Floor and wall shall be tiled and the vanity top shall be granite. There should be a small storage room and hand dryer in all wash room which contain more than two toilet units. And all the wash rooms shall contain mirrors, toilet paper holders, hand wash dispensers, soap treys, etc. The urinals shall be automatic flushed.

1.5. Engineering Design Brief

1.5.1. Structure

The structure should be designed in accordance with British Standard codes of Practices (loading, material, wind, foundation design, structural design calculations etc.) and if the bidder proposes to use any other standard he should submit relevant details with the bid. The structure

most probably would be a reinforced cement concrete framed structure and if the bidder proposes to use any other arrangement relevant details should be submitted with the bid.

It should have adequate stability for wind, fire, exposure conditions etc. and the design life cycle should be more than 50 years in accordance with relevant standards.

External walls should be constructed in 225mm standard brick work and internal partition walls should be thin walls as economical way like block work etc.

The average elevation of the site is 6.783m above the MSL and the Airport Aviation Authority has permitted to construct up to 35m high structures at the University premises where the elevation is 19.946m above the MSL and ground floor level shall be matched with the existing phase IV Building.

1.5.2. Foundation

Details of Two borehole logs at the site are available and soil investigation was done by the University and Report is attached herewith. The Designer should conduct with his requirements and load calculations on his cost.

1.5.3. Service Requirements

i. Lighting

Energy efficiency LED light fittings shall be used to fulfill the general lighting requirement of the building. The LED fittings shall be best quality with minimum 2 years warrantee. The board room lights shall be used as per requirements and the quality shall be approved by the Engineer. All the light fittings and switches shall be clearly numbered not to be affected to the appearance. However the designer shall take every step to gain maximum natural light in to the building during the day time.

ii. Ventilation

Air conditioning will be used for all the enclosed spaces and natural ventilation will be used for wash rooms and staircases. The contractor is recommended to use Central cooling air conditioning system or VRV/VRF system for air conditioning and individual split type air conditioners where necessary. The make and quality shall be approved by the Engineer. Air curtains will be used at the doors of often opened sections and all the doors shall be consist of door closures. All the lecture halls should consist of natural ventilation provisions in case of shut down of air conditioning system.

iii. Electrical power

Electrical power installation should be done in accordance with IEE and CEB regulations to establish all the safety requirements. 1000kVA capacity LECO transformer and a diesel generator are installed adjacent to the site as marked in the site plan given in annexure 2. The Contractor should supply and install all the service lines from the transformer and the generator to the building.

iv. CCTV Camera system

Public areas of the building shall be secured with HD 1080p high quality night vision CCTV camera system with required DVR, display, minimum 28 days storage and battery backup. The contractor shall provide a monitoring/control for CCTV system of the building. In addition to this, CCTV camera systems shall be provided to the exam hall to be covered the entire occupying area. The make and quality of CCTV system shall be approved by the Engineer.

v. Water supply

Water sump and overhead water tanks with adequate capacity should be provided and the Contractor should connect the sump to the Water Board mains adjacent to the site with automatic pumping system.

vi. Sewer and waste water disposal

The buildings should be provided with adequate sewer and waste water disposal systems in order to uninterrupted smooth functioning.

vii. Firefighting and fire protection

All the firefighting and fire protecting facilities should be provided including water sump with required capacity, hose reels, and portable carbon dioxide, water apparatus, fire and smoke detectors and sprinklers, etc. all as per the regulations of Fire Service Department of the Colombo Municipal Council.

viii. Networking and intercom telephone

General Requirements

1. Local area network of the rooms, labs, lecture halls and offices within each floor of the building shall be wired using UTP CAT6 cables of 24 AWG or thicker gauge
2. Uplinks to the floors, uplinks to the network racks, and uplinks to the Laboratory network shall be wired with the Fiber Uplinks
3. A Disaster recovery strategy for the connectivity of floors with the core switches shall be provided.
4. All the network switches of the building (except those with in the computer labs) shall have POE facility in all the ports of the switch to power up the IP Phones, CCTV cameras and the Wi-Fi Units.
5. Layer 3 and layer 2 (lite layer 3) manageable network switches shall be provided.
6. A server room of the size 3.0m x 2.0m shall be provided to host the core switches, PABX and the UPS system to power up the network switches. This room shall have an air conditioner unit.
7. All network racks except those in Laboratory should be power up from the central UPS system placed in the server room described above.

Network of the Laboratory

1. All the general requirements listed above are applicable
2. Networking and electricity wiring shall be done via floor trucking within the computer labs and office staff premises.
3. Laboratory premises shall be provided with a separate computer network managed by the Laboratory. This network shall be provided with separate fiber uplinks from the core switches of the building to the core switch placed in the Laboratory Server room. The labs and the other spaces of the Laboratory shall be given fiber uplinks from the Laboratory Core switch. (Not from the core switches of the main network of the building).

4. All network racks in Laboratory should be power up from the central UPS system placed in the Laboratory server room.

ix. Surge arrestors and lightning arrestors

All the precautions should be taken and systems should be installed for lightning and surge protection of the buildings according to standards.

x.Lifts and/or escalators

Lifts shall be provided with adequate number and capacity as per the standard regulations for vertical transportation of the building. Minimum number of passenger lift should be 01 Nos and at least 1 Nos of observation lifts shall be provided for the appearance and safety purposes. The lift shall be a Western or Japan make and the manufacturer should have at least 25 year experience in manufacturing lift or escalators.(Minimum passenger capacity is 1350 kg and Shall be accommodated facility for the secure movement of patients, patient beds, medical equipment, and all the important medical staff)

xi. Self-sensitive control system

The contractor is supposed to use self-sensitive control system for electrical lighting control to minimize the electrical utilization in particular areas where the adequate sunlight is available or the space is not occupied. This system is highly recommended for corridors, staircases, wash rooms, etc.

xii. Access

The access to the entire building and the rooms should be done through a card based access control system (fingerprint / barcode) monitored with 24 hour CCTV. (Main Lobby, Imaging Facility, Tissue Culture Laboratory, Allergy Laboratory, Video Conference and Molecular Biology + PCR)

xiii. Safety Requirements

There are minimum requirements imposed by codes of practice, regulations and Acts of parliament governing all site, building and services requirements. The minimum compliance shall be for the locally accepted minima, in the absence of which, the minima imposed by the British or internationally accepted standards shall be complied with. At the discretion of the owner (University) you may be required to adhere to the highest where several standards exist.

xiv. Chemical waste disposal system

The building should be provided with adequate chemical waste systems in order to uninterrupted smooth functioning. Mythology of treatment and discharge of non-aqueous chemicals and heavy metal and chemical effluent that will be generated in the operational phase from the laboratories. Possibility of schedule waste generation (as per the Gazette Notification 1534/18 dated 2008.02.01) during the operational phase from laboratories.

xv. Natural lighting and acoustics

Natural light needs to be introduced into the building with minimum loss of useable space. The lighting scheme must be appropriate for the different areas and provide for reading, viewing, computer use and listening in areas designated for these uses. Consideration should be given to external lighting and to the visual impact of the lit building during the hours of darkness. The entire building to be built in with central air conditioning.

Careful consideration should be given to acoustics throughout the building to minimize noise transference and the need for staff intervention to maintain an environment conducive to study. The design should aid noise management; for example “hot” space (for gathering, networking, interaction) should be separate from “cool” space (for reflection, private study and concentration). Through routes should be carefully designed to avoid disruption of quiet areas such as libraries and study rooms.

xvi. Landscaping

Eco friendly structure with minimal removal of existing flora and fauna and an environment that is conducive to the promotion of their growth so that “urban wild life” is preserved.

The university is home to a rich variety of flora and fauna and the design and construct of this building should ensure that the existing resources are safeguarded and incorporated so as to become an integral part of the structure. Garden spaces should be adequately spaced and located within the structure adding not only an aesthetic appeal but also necessary shade and ventilation to the occupants. Benches and tables that can be used as open places or informal seating areas should be provided within and outside the building so that students may use them even when the buildings are closed. These areas to be accommodated about 50 students at a time.

There should be provision for notice boards for public notices and for temporary displays. Such provision must not detract from the quality of the visual environment.

Provision should be made for artwork commissioned or acquired for the building by the University.

Attention should be given to the creation of vistas and visual interest within the premises for an optimal learning environment.

xvii. Access for the disabled

The design, equipping and organization of the building must enable users with special needs to make optimum use of the all areas/faculties. All public areas should have access for disabled, suitable toilets and placement of equipment.

xviii. Maintenance

The building will be used intensively throughout the year and for 24 hours per day. The building should be economical to run and all materials and finishes should be durable and easy to keep clean and maintain. The exterior should stand weathering effectively and should be of material that allows adequate cooling of the interior spaces and vistas.

It should stand the test of time.

xix. Furniture

Furniture for the faculty board room and seminar room shall be provided by the contractor and **only the complete furniture layout and the specifications** of furniture for the rest of the area shall be provided to assist the Employer to procure the furniture (Design, drawings and specification). All furniture shall be best quality with minimum 10 years warrantee.

1.5.4. Standards of Work and Material

The Employer requires all the construction work to be done according to and all construction material to be confirmed to following standards.

Work	Publication Number
Buildings Works (Vol. I)	SCA/4 3 rd Edition revised July 2004
Buildings Works (Vol. II)	SCA/4/II 3 rd Edition revised July 2004
Water Supply, Sewerage and Storm Water Drainage Works	SCA/3/2 2 nd Edition revised April 2002
Electrical & Mechanical Works	SCA/8

If the standards for proposed design by the bidder are different from above he should obtain the approval from the Engineer prior to implementation.

The Employer suggests following standards for material to be used and if the standards for material proposed by the Contractor are different from above the he should prove that proposed standards are equal or superior to suggested standards and should obtain the Engineer's approval before use.

All the wash basins should be vanity counter type fixed on granite slabs.

Material	Standard	Suggested Brands
Cement	Portland Cement confirming to S.L.S.107:1995	Tokyo, Lafarge, Mitsui, "Sanstha" or its successor
Reinforcing steel	Grade fy = 460 N/mm ² – Deformed high yield steel bar reinforcement conforming to BS 4449:1997 Grade fy = 250 N/mm ² – Plain round steel bar reinforcement conforming to BS 4449:1997	Lanwa or equivalent
Ready mixed concrete	BS.1919, BS 8110 and BS 5328: 1981	
Bricks	SLS 39/1978	
Cement blocks	SLS:855	AMTARD or equivalent properties
Door Closers/ Floor Hinges		Heavy duty (British make) Union, Yale, Dorma or equivalent
Door locks/Stainless Steel hinges		Union, Yale, Dorma (British make) or equivalent
Silicone Sealant	UV Resistant Tropicalized Silicone Sealant	
All Aluminum sections	Fully treated extruded aluminum alloy sections in accordance with BS codes 1470, 1471, 1473, 1474, and suitable for the purpose employed.	
Aluminum Windows, Doors and Screens	Shall comply with the requirements of B.S. 4873	
Aluminum profiles	shall be polyester powder coated, to a	

Material	Standard	Suggested Brands
Structural steel	minimum thickness of 60- 80 microns Should be of Gr. 43, conform to BS 4360, BS 4, BS 639, BS 3692 or BS 3693 and BS 4320:1968	
Toilet Fittings		American Standard, Rocel or equivalent
Toilet accessories		Grohe, Hansgrohe, Kola or equivalent
Floor tiles	Homogeneous Heavy Duty type	Rocell or equivalent
Wall tiles	Glazed Ceramic Homogeneous Heavy Duty	Rocel or equivalent
Water Pumps		Manufactured or marketed by "Jinasena" Company or equivalent.
Gate Valves/ Stopcocks		Grohe, Hansgrohe, Kola, Brass PEGLERS English (U.K.) or equivalent
All PVC. Water Supply pipes and fittings	PVC I.S.O. Type 1000	S-Lon or Anton or National or equivalent
All Waste Water pipes and fittings	PVC. I.S.O. Type 600	S-Lon or Anton or National or equivalent
All sewerage pipes and fittings	PVC I.S.O. Type 600	S-Lon or Anton or National or equivalent
Water proofing	The contractor shall jointly with the manufacturer/ supplier of the specialist, water proofing materials furnish a warranty to the employer valid for a period of 10 years after handing over of the works, against dampness and/ or defective workmanship. The warranty shall provide not only the materials necessary to remedy a problem but also the labour and equipment to apply the material.	should be done by an approved reputed specialist
The Electrical Installation	Shall be for 400V, 3 P&N, 50Hz, AC supply. All accessories used in the installation, shall be suitable for the appropriate working voltage. The execution of the work in every respect shall be confirmed to the latest edition of IEE Wiring Regulations. (17 th Edition) All wiring carried out for lighting and socket outlets using Cu/PVC/PVC wires manufactured according to BS 6004 shall be drawn inside the conduits, PVC or G.I. as the	

Material	Standard	Suggested Brands
	case may be, irrespective of whether they are laid on a cable tray or inside the wall or concrete slab.	
Sunk Switches, 10 A	B.S. 3676	Clipsal, Orange or equivalent
13A Switched Socket Outlets, Plugs & Adaptors	B.S. 1363	Clipsal, Orange or equivalent
5A and 15A Switched Socket Outlets	B.S. 546	Clipsal, Orange or equivalent
R.C.C.B. / R.C.D	B.S. 4293, IEC 1008, BS EN 61008	Terasaki, F&G, Moller or equivalent
M.C.B.	IEC 898 or BS EN 60898 or IEC 947 – 2 or B.S. 3871: Part 1	Terasaki, F&G, Moller or equivalent
Consumer Unit	B.S. 5486 Part 1 & Part 13, I.E.C. 439-1 or BS EN 60439 – 3, IEC 695-2-1	
M.C.C.B.	I.E.C. 947-2: 1989 BS. EN 60947-2 : 1992	Terasaki, F&G, Moller or equivalent
Cu/PVC/SWA/PVC Cables	B.S. 6346	ACL or Kelani
Cu/PVC/PVC Cables	B.S. 6004 : 1995 & SLS, 733: 1995	ACL or Kelani
Cu/XLPE/SWA/PVC Cables	B.S. 5467	ACL or Kelani
Cu/XLPE/PVC Cables	B.S. 5467	ACL or Kelani
Fluorescent Ballasts with Screw Type Terminals	I.E.C 920, 921 & 922, BSEN 60928	Philips or equivalent
Fluorescent Lamps Colour: Cool White (4000 K)	I.E.C. 81, B.S. 1853	Philips or equivalent
Compact Fluorescent Lamps		Philips or Orange or equivalent
Light Emitting Diodes (LED) Lightings		Philips or Orange or equivalent
Lighting Fixtures	EN 60598, BS 4533	Prelectron or equivalent
Steel Enclosures (Epoxy Powder coated)	I.E.C. 529 for degree of protection, BSEN 60529	
Exhaust Fans	BS 5060, I.E.C. 879 : 1987)	
PVC Conduits	BS 4607 & BS 6099	S-Lon or equivalent
G.I. Conduits	BS 4568 Part I	
Lifts	The design, manufacture, and installation of the elevators and their accessories shall comply completely with BS 5655 parts 1, 3, 5, to 11, BS 302/1/4 and BS 7255, 6, 7, 8, 9, 10, 11, or later and with all other relevant BS codes of practice for electric passenger and service elevators.	Mitsubishi or equivalent
Paints		CIC or equivalent

1.6. Objectives of the Assignment

Following objectives are established for the assignment, based on the Employer’s requirements. Bidders are highly advised to analyze the objectives and comment their views with required alterations in order to fulfill the Employer’s requirements with the bid. The ultimate product at the end of Contract should be in accordance with the objectives set forth accordingly.

- i. To develop schematic design for proposed building;
Bidders are advised to submit draft schematic design with their bids
- ii. To establish technical specifications in accordance with the Employer’s requirements and any alterations proposed with bid by the and agreed by the Employer;
- iii. To construct the buildings in accordance with Employer’s requirements and specifications established; and
- iv. To carry out any inspections needed, during the Defect Liability Period and take necessary actions to rectify the defects (if any).

1.7.Scope of the Work

1.7.1 Feasibility phase

A project brief is available providing the detailed space requirement and the contractor is expected to review the document along with the “design guidance” herein and advise the Employer of modifications or concerns, if any. The Contractor in this instant should consult the Planning and Capital Works Division of the University for further clarification, if required. The contractor shall study the conditions laid down by the UDA, consult UDA, Land Reclamation and Drainage Board for other details and assist in fulfilling all statutory requirement for the construction.

The tasks to be undertaken shall include to following but not limited to them and shall be done while preparation of bid and while implementation if awarded.

- i. Analyze Project Brief; and
- ii. Study statutory requirements and if necessary consult with UDA, Land Reclamation and Drainage Board, Local Authorities, Environmental Authority and any other Authority having jurisdiction on construction projects

1.7.2. Schematic design phase

Initially the Contractor is expected to carry out a study/ survey to assess the eco-friendly environments, landscape and aesthetic requirements, site conditions and any other investigations such as soil analysis etc.

Thereafter, the Contractor is expected to prepare a layout plan with details of all proposed items and develop a conceptual plan and a perspective drawing incorporating the main features, such as the buildings, access road, parking area, footpaths, landscaping areas and any other services. The specific tasks undertaken shall include the following but not limited to them and shall be done while preparation of bid and while implementation if awarded.

- i. Analyze Employer’s requirements including time scale and financial limits assess these and advice on how to proceed;
- ii. Investigate Site conditions and constraints;
- iii. Consult with Local Authorities and Statutory Bodies and obtain outline Planning Consent;

- iv. Establish design criteria and concepts and develop the schematic design based on the approved outline proposal, estimate approximate construction cost and obtain Employer's approval;
- v. Prepare schematic drawings including landscaping and obtain Employer's approval;
- vi. Analyze the requirement of services such as water, electricity, etc.;
- vii. Space planning; and
- viii. Partition and furniture locations

1.7.3. Design development phase

This stage of the work shall include the preparation of design development documents and landscape design. The specific tasks under the design development phase shall include the following, but not limited to them and shall be done after the award of Contract.

- i. Establish design criteria;
- ii. Site investigations and surveys;
- iii. Preparation of design development documents consisting of a set of plans, sections, elevations to a scale acceptable for the Local Authority approval;
- iv. Decide on the type of construction, quality of materials and standards of workmanship;
- v. Assist the Employer to negotiate where required applications for approval under buildings acts, regulations, drainage or other statutory requirement;
- vi. Obtain Employer's approval for type of construction, finishing material to be used, type of contract to be used, types of sub-contracts to be used for structural, mechanical, electrical systems to be used in the project; and
- vii. Prepare a landscape design for the immediate environment with minimum disturbance.

1.7.4 Construction phase

The scope of work to be undertaken in this part of work shall be the total responsibility for construction, supervision, management and administration. The Contractor shall engage full time staff on site supervision for the entire project by providing Resident Engineer/Architect, Technical officers and any other expertise whenever necessary.

The tasks shall include the following but not limited to them

- i Prepare working Drawings;
- ii Prepare construction program;
- iii Supervise the works and monitor progress of work;
- iv Arrange to test all the systems installed and arrange to hand over test reports, and any other document needed as per conditions;
- v Undertake construction management, construction administration, programming, planning and monitoring;
- vi Conducting monthly progress review meeting
- vii Attend progress review meetings conducted by the Employer;
- viii Submit monthly operational summary;
- ix Implement safety measures; and
- x Quality Control and testing.
- xi Implementation of Environmental Management Plan.

1.7.5 Maintenance phase

The Contractor should do following tasks during the Defect Liability period.

- i. Prepare a maintenance manual of services and plans with the help of sub-contractors involved;

- ii. Advice regarding service agreements on equipment and services;
- iii. Advice regarding maintenance programs for the Buildings and Built-Environment;
- iv. Arrange the specialist contractors to train the Employer’s staff to operate the systems and plants;
- v. Prepare and submit “As-Built” drawings, any changes done during construction to the plants; sections and elevations should be incorporated in “As-Built” drawings and submitted to the Employer;
- vi. Hand over warranties and guarantees to the Employer; and
- vii. Correct any defects identified by the Engineer during the Defect Liability Period.

1.8 Institutional Arrangements

All works to be done for and on behalf of the University of Sri Jayewardenepura. Therefore, the contractor should carry out all work in each stage with very close coordination of the Planning and Capital Works Division of the University.

Coordination with other relevant authorities is also essential. To ensure such close coordination and monitoring it is suggested to hold weekly or fortnightly meetings at the University. The Contractor should attend these meetings with the relevant professionals.

1.9 Details to be submitted together with the Proposal

The minimum details to be submitted with the proposal are given below.

- i. Submit a Contour survey plan including mature trees, boulders and other geological features. Make available a soft (CAD) copy of the plan if the client has not submitted
- ii. Submit a Geotechnical report and other site relevant data if any if the client has not submitted
- iii. Schematic diagram of the building layout
- iv. Schematic of preferred locations for main entry, services roads etc.
- v. Sample templates for specific designs requirements such as laboratories etc.
- vi. Architectural Design & Specifications should be in
 - Compliances required in terms of building and planning requirements
 - Spatial qualities required in specific places and spaces
 - Level of amenities and quality expected in terms of facilities and comfort
 - Schedule of the architectural drawings proposed to be submitted with the proposal and subsequent submissions
 - Required architectural drawings to be submitted with the bid
 - Schedule for minimum set of drawings to be submitted during the progress of the work
 - Required structural drawings to be submitted with the bid
 - Schedule for minimum set of drawings to be submitted during the progress of the work
 - Required services drawings etc. to be submitted with the bid
 - Schedule for minimum set of drawings to be submitted during the progress of the work
 - Other drawings and requirements: for interior works, furniture and landscaping,
 - Provide a schedule for any drawings reports required for government approvals etc.
 - Applicable standards: indicate applicable national and international standards for materials, performance criteria (fire resistance, light, ventilations and temperature) and amenities (disability access, slip resistance etc.)
 - Engineering Design & Specifications

- Requirements of Geotechnical report to be submitted by the contractor (if geotechnical report is not provided by the client).
- Schedule of the structural and other engineering drawings proposal to be submitted with the proposal and subsequent submissions

Section – VII (a)

FORM OF BID

FORM OF BID

NAME OF CONTRACT: Establishment of the Allergy, Immunology and Cell Biology Unit
Affiliated to the University of Sri Jayewardenepura

To: Vice Chancellor,
University of Sri Jayewardenepura,
Gangodawila, Nugegoda.

We have examined the Conditions of Contract, Employer's Requirements, Schedules and Addenda Nos. for the execution of the above – named Works. We accordingly offer to design, execute and complete the said Works and remedy any defects fit for the purpose, in conformity with the Bidding Documents and the enclosed Proposal, at the lump sum stated in the Form of Price Proposals included in a separate envelope and submitted with this bid, or other such sums as may be determined in accordance with the terms and conditions of the Contract.

We confirm that our bid includes this General Information, Price Proposal, and Design/Technical Proposal sealed under three separate envelopes.

We agree to abide by this Bid **until 14.04.2021** and it shall remain bidding upon us and may be accepted at any time before that date.

We confirm that, we (including all members of a joint venture and subcontractors) are not associated, directly or indirectly, with the consultant or any other entity in preparation of the design, specification, and other documents for the contract.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as reasonably practicable after the Commencement Date, and complete the Works in accordance with the above - named documents within the Time for Completion. We will ensure that works will be done in conformity with the contract.

Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest offer or any other bid you may receive.

.....

Signature of the persons duly authorized to sign documents for and on behalf of

.....

Address:

.....

.....

Date:

Section – VIII (a)

SCHEDULES
Related to General Information

Schedule A 1 - Preliminary Information			
<i>(enclose this schedule in the envelope marked, "Envelope 1 – general Information")</i>			
<i>(i) If pre qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application</i>			
<i>(ii) For joint ventures, each joint venture partner shall furnish information separately</i>			
ITB Clause reference	Description	Information (to be filled by the Bidder)	Remarks
3.1	CIDA Registration		Provide certified copies and label them as attachment to Clause 3.1
	Registration Number		
	Grade		
	Spatiality		
	Expiry Date		
3.2	NCCASL membership		Provide certified copies and label them as attachment to Clause 3.2
	Number		
	Expiry Date		
4.1 (a)	Legal Status		
	If a Joint Venture, names and addresses of Joint venture partners	1. 2. 3.	Provide certified copy of the Joint Venture Agreement.
	If a Joint Venture, names of the Lead Partner		
	For joint ventures, each joint venture partner shall furnish Legal Status separately.		
	Name (Lead Partner)		Provide certified copies and label them as attachment to Clause 4.1 (a)
	Legal status		
	Place of registration		
	Principal place of business		
	Written power of attorney of the signatory to the Bid	Provide certified copy of the power of attorney attested by a Notary and label them as attachment to Clause 4.1 (a)	
	VAT Registration Number		Provide certified copies and label them as attachment to Clause 4.1 (a)
	Name (Partner 2)		
	Legal status		
	Place of registration		
	Principal place of business		
	Written power of attorney of the signatory to the Bid	Provide certified copy of the power of attorney attested by a Notary and label them as attachment to Clause 4.1 (a)	
	Name (Partner 3)		
	Legal status		
	Place of registration		
	Principal place of business		
	Written power of attorney of the signatory to the Bid	Provide certified copy of the power of attorney attested by a Notary and label them as attachment to Clause 4.1 (a)	

Schedule A 2 – Annual Turn over Information (Construction only – Last five years) <i>(enclose this schedule in envelope marked “ Envelope 1 – General Information”)</i> (i) <i>If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.</i> (ii) <i>For joint ventures, each joint venture partner shall furnish information separately.</i>		
Year	Turn –over	Remarks
1		Attach audited reports and label them as attachments to Clause 4.1 (a) (i)
2		
3		
4		
5		

Schedule A 3 – Adequacy of Working Capital (enclose this schedule in envelope marked “Envelope 1 –General Information) If pre qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application		
Source of credit line	Amount	Remarks
		Provide documentary evidence and label them as attachment to Clause 4.1 (a) (ii)
Total		

Schedule A 4 – Construction Experience in last five years

(enclose this schedule in envelope marked, "Envelope 1 – General Information)

(i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.

(ii) For joint ventures, each joint venture partner shall furnish information separately.

(iii) List similar works first.

Year	Employer	Description of Works	Amount (Project Cost)	Contractor's Responsibility (%)
		Total		

Schedule A 5– Design experience in last five years

(enclose this schedule in envelope marked, “Envelope 1 – General Information)

(i) If pre-qualification is done the bidders are required to include information subsequent to that submitted with the pre-qualification application.

(ii) For joint ventures, each joint venture partner shall furnish information separately.

(iii) List similar works first.

Year	Employer	Description of Works	Amount*	Contractor's Responsibility (%)
		Total		

[illegible]

Check List for Bidders

Bidders are advised to fill the following table:

ITEM	ITB Clause	YES (tick)	REFERENCE
Form of Bid			
Addressed to the Employer?	18		
Completed?	18		
Signed?	18		
Bid Security Declaration Form (if required)			
Properly filled and signed	16		
Bid Security (if required)			
Addressed to the Employer?	16		
Format as required?	16		
Issuing Agency as specified?	16		
Amount as requesting?	16		
Validity 28 days beyond the validity of Bid?	16		
Qualification Information			
All relevant information completed?	4		
Signed?	4		
Addendum			
Contents of the addendum (if any) taken in to account?	10		
BID package			
All the documents given in ITB Clause 12 enclosed in the original and copy?	12		
ITB Clause 19 followed before sealing the Bid Package?	19		

VOLUME 2

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	SECTION VIII (b) – SCHEDULES	6

Section – VII (b)

FORM OF DESIGN & TECHNICAL PROPOSAL

FORM OF DESIGN/TECHNICAL PROPOSAL

NAME OF CONTRACT: Establishment of the Allergy, Immunology and Cell Biology Unit
Affiliated to the University of Sri Jayewardenepura

To: Vice Chancellor,
University of Sri Jayewardenepura,
Gangodawila, Nugegoda.

We have examined the conditions of contract, Employer's Requirements, Schedule and Addenda Nos.-.....for the execution of above-named works.

We accordingly offer to design, execute and complete the said Works and remedy any defects, fit for purpose in conformity with these Bidding Documents and enclosed proposal. We are hereby submitted our Bid, which includes this Design/Technical Proposal, General Information and a Financial Proposal sealed under a separate envelopes.

We understand that you are not bound to accept the lowest offer or any other bid you may receive.

.....

Signature of the persons duly authorized to sign documents for and on behalf of

.....

Address:

.....

.....

Date:

Section – VIII (b)

**SCHEDULES – Related to Design and Technical
Proposal**

Schedule B1 – Comments and Suggestions on Employer’s Requirements
(enclose this schedule in envelope marked “Envelope 2 – Design and Technical Proposal”)

Sheet 1 of

Bidders may include observations made on Employer’s Requirements and any suggestions for consideration. (Use additional pages if necessary).

Schedule B2 – Contractor’s Proposal

(enclose in envelope marked “Envelope 2 – Design and Technical Proposal”)

Sheet 1 of

This schedule should be complete considering all the requirements given in the Employer’s Requirements, including design criteria, specifications and technical data. (use additional pages if necessary)

Schedule B3 – Team Composition and Task Assignment <i>(enclose this schedule in envelope marked, “Envelope 2 – Design and Technical Proposal”)</i>		
A. Design Staff		
Name	Position	Task
B. Construction Management		
Name	Position	Task

Schedule B4 – Curriculum Vitae of Key Staff				
<i>(enclose Curriculum Vitae in envelope marked, “Envelope 2 – Design and Technical Proposal”)</i>				
Proposed Position:				
Name of Staff:				
Profession:				
Date of Birth:				
Membership in Professional Societies:	Society/ Institution	Membership Category	Date Obtained	
Detailed Tasks Assigned:				
Key Qualifications:	<i>Give an outline of staff member’s experience most pertinent to tasks or assignment. Describe degree of responsibility held by staff member on relevant previous assignment and give dates and locations. Use about half a page.</i>			
Education:	Institute	Qualification	Date Obtained	
Employment Record:	Organization	Position Held	Responsibilities and Tasks Performed	Period
Certification:	I, the undersigned, certify that to the best of my knowledge and belief, the information is correct and I am liable for disqualification if any of the above information is found to be incorrect.			
Signature of staff member:			Date:	

Schedule B5 – Time Schedule for key staff																					
<i>(enclose this schedule in envelope marked, “Envelope 2 – Design and Technical proposal”)</i>																					
			Months (in the Form of a Bar Chart)																		
Name	Position	Activities	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	No of Months

Schedule B6 – Work Program (Design Related Activities)

(enclose in envelope marked, "Envelope 2 – Design and Technical Proposal")

[illegible]

Schedule B7 – Work Program (Construction Related Activities)

(enclose in envelope marked, “Envelope 2 – Design and Technical Proposal”)

[illegible]

VOLUME 3

VOLUME 3	<u>CONTENTS</u>	PAGE
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	SECTION VIII (c) – SCHEDULES	6

Section – VII (c)

FORM OF PRICE PROPOSAL

FORM OF PRICE PROPOSALS

NAME OF CONTRACT: Establishment of the Allergy, Immunology and Cell Biology Unit
Affiliated to the University of Sri Jayewardenepura

To: Vice Chancellor,
University of Sri Jayewardenepura
Gangodawila, Nugegoda

We have examined the Conditions of Contract, Employer's Requirements, Schedules and Addenda Nos. or the execution of the above-named Works. We accordingly offer to design, execute and complete the said Works and remedy any defects fit for the purpose, in conformity with the Bidding Documents and the enclosed Proposal, for the fix lump sum of Sri Lankan Rupees (LKR.....) or other such sums as may be determined in accordance with the terms and conditions of the Contract. The above amounts are in accordance with the Price Schedule herewith and are made part of this bid. We confirm that our bid includes this Price proposal, Design/Technical Proposal, and General Information sealed under a separate envelopes.

We accept your suggestions for the appointment of Adjudicator, as set out in Bidding Data.

We agree to abide by this bill until 14.04.2022, and it shall remain binding upon us and may be accepted at any time before that date.

We confirm that, we (include all members of a joint venture and subcontractors) are not associated, directly or indirectly, with the consultant or any other entity in preparation of the design, specifications, and other documents for the contract.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as reasonably practicable after the Commencement Date, and complete the Works in accordance with the above-named documents within the Time for Completion. We will ensure that works will be done in conformity with the contract.

Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance therefore, shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest offer or any other bid you may receive.

.....

Signature of the persons duly authorized to sign documents for and on behalf of

.....

Address:

.....

.....

Date:

Section – VIII(c)

SCHEDULES – Related to Price Proposal

Schedule C1 - Price Schedule (enclose all price schedule in envelope marked, “Envelope 3 – Financial Proposal”)		
Activity 1 : Preliminaries		
Item No:	Sub-activity description	Amount (Rs.)
1.1	Allow lump sum for providing Bid Security	
1.2	Allow lump sum for providing Performance Guarantee	
1.3	Allow lump sum for mobilization in Site	
1.4	Allow lump sum for insurance of works, plant & machinery, material, third party and workmen.	
1.5	Allow lump sum for providing electricity for construction including connection from the supply mains and supply throughout the contract period.	
1.6	Allow lump sum for providing water for drinking and construction including connection from the NWS&DB mains and supply throughout the contract period.	
1.7	Provide lump sum to construct furnish, maintain & removal at end of contract temporary buildings for protection & storage of materials & plant and for workshops.	
1.8	Provide lump sum to construct furnish, maintain & removal at end of contract Contractor's office.	
1.9	Allow for providing safety, Health and sanitary facilities for Contractor's staff.	
1.10	Provide lump sum for safety fences, safety nets, necessary warning notice, adequate night lighting, security services, etc.,	
1.11	Provide lump sum for providing security and safeguarding the works, material and plant against damage, vandalism and trespass	
1.12	Provide lump sum for demobilization, removal of all rubbish & debris and clean up site on completion, leveling all in good order and handing over	
1.13	Allow lump sum for providing “As Built” drawings and Operating and Maintenance manual as specified.	
1.14	Allow lump sum for obtaining all the required approvals from UDA including all the fees and charges.	

Item No:	Sub-activity description	Amount (Rs.)
	Any other Sub-activity (Bidder to include)	
1.A1		
1.A2		
1.A3		
1.A4		
1.A5		
1.A6		
1.A7		
1.A8		
1.A9		
1.A10		
Total for Activity 1 carried to summary		

Schedule C 1 - Price Schedule <i>(enclose all price schedule in envelope marked, “Envelope 3 – Financial Proposal”)</i>		
Activity 2 : Design		
Item No:	Sub-activity description	Amount (Rs.)
2.1	Surveying the site	
2.2	Site investigations and testing	
2.3	Schematic designs	
2.4	Design of the buildings	
2.5	Quality control, planning, monitoring, testing and remedial measures	
	Any other Sub-activity (Bidder to include)	
2.A1		
2.A2		
2.A3		
2.A4		
2.A5		
Total for Activity 2 carried to summary		

Schedule C 1 - Price Schedule (enclose all price schedule in envelope marked, "Envelope 3 – Financial Proposal")		
Activity 3 : Construction		
Item No:	Sub-activity description	Amount (Rs.)
3.1	Demolition of Existing Structures and cart away, as directed	
3.2	Excavation and earth work	
3.3	Foundation and substructure	
3.4	Concrete work	
3.5	Waterproofing	
3.6	Masonry work	
3.7	Roof work	
3.8	Timber work and carpentry work	
3.9	Aluminum and metal work	
3.10	Floor, wall, ceiling finishes and handrail work	
3.11	Painting and decoration	
3.12	Electrical installation	
3.13	Sound and lighting system installations	
3.14	Internal plumbing and sanitary installations	
3.15	Air-conditioning Installation	
3.16	Firefighting installations	
3.17	External plumbing and water supply including NWS & DB connection	
3.18	Water Sump and external drainage system	
3.19	Waste water and sewerage disposal system	
3.20	External electricity supply & connection	
3.21	Supply and fixing of lifts	

Schedule C 1 - Price Schedule <i>(enclose all price schedule in envelope marked, "Envelope 3 – Financial Proposal")</i>		
3.22	CCTV camera system	
3.23	Lightning and surge protection	
3.24	Internal roads and Landscaping	
3.25	Furniture and stage	
3.26	Carpeting of Internal Roads	
Any other Sub-activity (Bidder to include)		
3.A1		
3.A2		
3.A3		
3.A4		
3.A5		
Total for Activity 3 carried to summary		

Schedule C2 – Price Schedule <i>(enclose all price schedules in envelope marked, “Envelope 3 – Financial Proposal”)</i>					
Day Works					
Item No:	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
D.1	Labourer - un skilled	hours	100.00		
D.2	Labourer – skilled	hours	50.00		
D.3	Bar bender	hours	40.00		
D.4	Mason	hours	50.00		
D.5	Carpenter/Joiner	hours	50.00		
D.6	Plumber/Pipe fitter	hours	40.00		
D.7	Plasterer/Tile fixer	hours	50.00		
D.8	Painter	hours	50.00		
D.9	Plant Operator	hours	30.00		
D.10	Electrician	hours	50.00		
D.11	Aluminium fabricator	hours	40.00		
D.12	Tor steel	kg	250.00		
D.13	Mild steel	kg	150.00		
D.14	Cement (50 kg)-Brand	Bag	25.00		
D.15	Weather shield paint - CIC or equivalent	liter	20.00		
D.16	Emulsion Paint - CIC or equivalent	liter	20.00		
D.17	Enamel paint - CIC or equivalent	liter	10.00		
D.18	Brick (1000 nr)	Item	1.00		
D.19	Ply wood 12mm thick 4'x8'	Nos.	10.00		
D.20	Ply wood 16mm thick 4'x8'	Nos.	10.00		
D.21	River sand	m ³	10.00		

Item No:	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
D.22	20mm aggregate	m ³	10.00		
D.23	Air compressor (125 cubic feet) any type of drive, including fuel, water, all consumable stocks, spares, hoses and jack hammers.	hours	25.00		
D.24	Concrete mixer, closed drum with hopper any type of drive, fuel and all consumable stocks and spares, capacity 08/7.	hours	25.00		
D.25	Motor lorry, including fuel, all consumable stocks and spares, capacity 3 ton tipper.	hours	20.00		
D.26	Welding machine including all consumable stocks and spares single operator 400 amps.	hours	30.00		
D.27	Backhoe Loader (capacity.....) including -do-	hours	20.00		
D.28	Jack hammer (capacity.....) - including -do	hours	30.00		
Total for Day works carried to summary					

Schedule C3 - Percentage of the Overheads and profits for Plant, Materials or services to be Purchased by the Contractor (if any) under Provisional Sums, in accordance with sub-clause 13.4 of Conditions of Contract <i>(enclose this schedule in envelope marked, “Envelope 3 – Financial Proposal”)</i>			
Item Number (1)	Amount of Provisional Sum <i>(to be filled by the Employer)</i> (2)	Percentage <i>(to be filled by the Bidder)</i> (3)	Amount of Overhead and Profit <i>(to be filled by the Bidder)</i> (4)=(2)*(3)/100
P.1	N/A		-
Total for Overhead and Profit for Provisional Sum carried to summary			-

Schedule C4 – Price Schedule <i>(enclose all price schedules in envelope marked, “Envelope 3 – Financial Proposal”)</i> Sheet of.....		
Summary		
Activity No:	Activity description	Amount
1	Preliminaries	
2	Design	
3	Construction	
	Any other activity (bidder to include)	
A		
B		
	Sub Total	
	Discount	
	Add Day Work Schedule	
	Add Provisional Sum	-
	Amount carried to Form of Bid	
	Add VAT 8%	
	Total	