

**URBAN IMPROVEMENT TRUST,
AJMER**

Package No.:- 01

Package Name : Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A
dwelling units (G+3) Houses under affordable
Housing scheme at Lohagal khasra no. 832 Ajmer.

DOCUMENT ISSUE DETAILS

S.No.	Date
Issued To	M/s.....
CR No.Date.....	Amount Rs.
	Signature of Cashier

Government of Rajasthan	Urban Improvement Trust, Ajmer
Affordable Housing Policy-2009 Modle No. 1	
BID DOCUMENT	TECHNICAL PROPOSAL
Name of package	Envelope A
	Volume I (Section I to IX)
Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units (G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832 Ajmer.	NIT NO. : UIT/30056-85/46/2011-12 Date of Receipt : 22-02-2012 Pre-Bid Meeting : 13-02-2012
(Under Percentage rate basis)	Estimated Cost : 514.15 Lacs
	Executing Agency : Urban Improvement Trust Todarmal Marg, Ajmer - 305001

Formatted: Normal, Centered, Indent: Left: 0", Line spacing: Double

GOVERNMENT OF RAJASTHAN

URBAN IMPROVEMENT TRUST : AJMER

CONSTRUCTION OF G+3 HOUSES UNDER AFORDABLE HOUSING
POLICY-2009 MODEL NO. 1

BID DOCUMENT FOR

Formatted: Centered

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units
(G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832
Ajmer.

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

TECHNICAL PROPOSAL (ENVELOPE - A)

Section I	Instructions to Bidders
Section II	Bidding Data
Section III	General conditions
Section IV	Special Conditions of Contract
Section V	Drawings
Section VI	Scope of Work and Technical Specifications
section VII	Technical Submission
Section VIII	Sample Forms of Letter of Acceptance, Contract Agreement, and Performance Security.
Section IX	Appendix to Bid

Assistant Engineer

Executive Engineer

UIT., Ajmer

UIT., Ajmer

Formatted: Normal, Centered,
Indent: Left: 0", Line spacing:
Double

GOVERNMENT OF

RAJASTHAN

URBAN IMPROVEMENT TRUST : AJMER

**CONSTRUCTION OF G+3 HOUSES UNDER AFFORDABLE
HOUSING POLICY-2009 MODEL NO. 1**

BID DOCUMENT FOR

Formatted: Centered

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units
(G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832
Ajmer.

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

SECTION - I

INSTRUCTION TO BIDDER (ITB)

INDEX

<u>Section I. - Instructions to Bidders</u>	9
<u>A. General</u>	9
1. <u>Scope of Bid</u>	9
2. <u>TYPE OF CONTRACT</u>	9
3. <u>Source of Funds</u>	9
4. <u>Eligible Bidders</u>	9
5. <u>Qualification of bidder</u>	10
6. <u>One Bid per Bidder</u>	11
7. <u>Cost of bidding</u>	11
8. <u>Site visit</u>	11
<u>B. Bidding Documents</u>	12
9. <u>Contents of Bidding Documents</u>	12
10. <u>Clarification of Bidding Document</u>	12
11. <u>Amendment of Bidding Documents</u>	13
<u>C. Preparation of Bids</u>	14
12. <u>Language of Bid</u>	14
13. <u>Documents Comprising the Bid</u>	14
14. <u>Bid Prices</u>	14
15. <u>COMPLIANCE OF APPRENTICESHIP ACT, 1961</u>	15
16. <u>Currencies of Bid and Payment</u>	15
17. <u>Bid Validity</u>	15
18. <u>Bid Security</u>	15
19. <u>Alternative Bids</u>	16
20. <u>Pre-bid Meeting</u>	16
21. <u>Format and Signing of Bid</u>	16
<u>D. Submission of Bids</u>	17
22. <u>Sealing and Marking of Bids</u>	17
23. <u>Deadline for Submission of Bids</u>	18
24. <u>Late Bids</u>	18
25. <u>Modification and Withdrawal of Bids</u>	18
<u>E. Opening and Evaluation of Technical Proposals</u>	19
26. <u>Opening of Technical Proposals</u>	19
27. <u>Preliminary Examination of Technical Proposal</u>	19
28. <u>Evaluation and Comparison of Technical Proposal</u>	19
29. <u>Clarification of Technical Proposal</u>	20
30. <u>Invitation to Attend Opening of Price Proposals</u>	20
<u>F. OPENING AND EVALUATION OF PRICE PROPOSALS</u>	21
31. <u>Opening of Price Proposals</u>	21
32. <u>Process to be Confidential</u>	21
33. <u>Clarification of Bids AND CONTACTING THE EMPLOYER</u> 2134. <u>PRELIMINARY EXAMINATION C</u>	21
35. <u>Correction of Errors</u>	22

<u>36.</u>	<u>Evaluation and Comparison of Price Proposals</u>	23
<u>37.</u>	<u>Award of Contract</u>	23
<u>38.</u>	<u>Employer's right to accept any Bid and to reject any or all Bids</u>	24
<u>39.</u>	<u>NOTification of Award</u>	24
<u>40.</u>	<u>Signing of Agreement</u>	24
<u>41.</u>	<u>Performance Security</u>	24
<u>42.</u>	<u>Corrupt or Fraudulent Practices</u>	25
	<u>43. INDICATIVE LIST OF NATIONALIZED/SCHEDULED</u>	
	<u>BANKS.....</u>	<u>26</u>

SECTION I. - INSTRUCTIONS TO BIDDERS

A. GENERAL

1 SCOPE OF BID

- 1.1 The Employer wishes to receive bids from the eligible bidders for the Work that is described in the Bidding Data sheet.
- 1.2 The successful bidder will be expected to complete the works within the period stated in the Bidding Data sheet and Appendix to Bid from the date of issuance of the Notice to proceed, or such other date may be specified in the Notice to Proceed.
- 1.3 Throughout these bidding documents, the terms "bid" and "tender" and their derivatives ("bidder"/"tendered" and "bid"/"tendered", "bidding"/"tendering", etc) are synonymous and day means calendar day. Singular means plural.

2 TYPE OF CONTRACT

- 2.1 It is proposed to invite bids in two envelopes in percentage rate format/item rate/ from bidders who fulfill the Post Qualification Criteria stipulated in the bid document.

3 SOURCE OF FUNDS

- 3.1 ~~UIT receiving fund under self finance scheme,~~

4 ELIGIBLE BIDDERS

- 4.1 The invitation to Bid is open to bidders who :
are residents of the Indian Nation and who pursue the business of **execution of civil engineering works contracts** in the State of India.
- 4.2 The bidder could be a single entity or a Joint venture. The Joint Venture can be formed by not more than two entities (one lead partner with another JV partner) as stipulated in the Section II Bidding Data sheet
- 4.3 Full fill the eligibility criteria stipulated in the Section II Bidding Data sheet.
- 4.4 Bidders shall provide such evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.
- 4.5 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices in any of the Public Work Agencies in the State of Rajasthan.

Deleted: The State of Rajasthan is receiving 80 % assistance from the Government of India under JNNURM (Jawaharlal Nehru National Renewal Mission). The funds provided by the GOI will be utilized by the Government of Rajasthan for funding the contract. The 10% assistance shall be provided by the Government of Rajasthan & balance 10% shall be provided by the ULB& UIT, Ajmer.

Deleted:

5 Qualification of bidder

5.1 To be qualified for award of Contract, bidders shall:

- a) submit a written power of attorney original, authorizing the signatory of the bid to commit the bidder; and
- b) Adequate information regarding his financial, technical and organizational capacity and working experience to execute the work of the nature and magnitude.

Declaration under Official Secrets Act for maintaining secrecy of the tender document, drawings or other records connected with the work given to him in the form given in section-VII- Technical submission.

- c) Details of contract work in hand.
- d) Details of future commitments.
- e) Current litigations.

5.2 Bids submitted by a joint venture of two firms as partners shall comply with the following requirements:

- a) the Bid, and in case of successful Bid, the Form of Agreement, shall be signed by the authorized representative so as to be legally binding on both partners;
- b) one of the partner shall be authorized to be in charge and this authority shall be evidenced by submitting a power of attorney signed by legally authorized signatories of another partner;
- c) the partner in charge shall be authorized to incur liabilities, receive payments and receive instructions for and on behalf of another partner of the joint venture and the entire execution of the Contract including payment shall be done exclusively with the partner in charge;
- d) Both the partners of the joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Bid Form and the Form of Agreement (in case of a successful bid); and
- e) A copy of the Agreement entered into by the Joint Venture partners shall be submitted with the Bid.
- f) The joint venture agreement should indicate precisely the responsibility of both the members of JV in respect of planning, design, construction equipment, key personnel, work execution and financing of the project. This should not be varied / modified subsequently without prior approval of the employer.

5.3 Bidders shall also submit details of their proposed work methods and schedule, in sufficient detail so as to demonstrate the adequacy of the bidder's proposals to meet the specifications and the completion time referred to in Sub Clause 1.2 above.

6 ONE BID PER BIDDER

- 6.1 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 for the particular Works will be disqualified. The limitation, however, will not apply in respect of bids which include specialist sub-contractors or equipment suppliers who are used by more than one bidder.

7 COST OF BIDDING

- 7.1 The bidder shall bear all costs associated with the preparation and submission of his bid and the Employer will in no case be responsible or liable for those costs.

8 SITE VISIT

- 8.1 The bidder is advised to visit and examine the site of works and its surroundings and obtain for himself on his own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the site shall be at the bidders own expense.
- 8.2 The bidder and any of its personnel or agents will be granted permission by the Employer to enter upon premises and lands for the purpose of such visit, but only upon the express condition that the bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses as a result of the inspection.
- 8.3 The Employer may conduct a site visit concurrently with the pre-bid meeting referred to in Clause 20.

B. BIDDING DOCUMENTS

9 CONTENTS OF BIDDING DOCUMENTS

9.1 The Bidding Documents are those stated below, and these should be read in conjunction with any Addenda issued in accordance with Clause 11.

1.1.1 VOLUME I

Invitation for Bids (IFB)

Section I	Instructions to Bidders
Section II	Bidding Data
Section III	General Conditions of Contract
Section IV	Particular Conditions of Contract
Section V	Scope of Work and Technical Specifications
Section VI	Drawings
Section VII	Form of Bid Security
Section VIII	Sample Forms of Letter of Acceptance, Agreement, Performance Security, and Advance Payment Security

1.1.2 VOLUME II

Section IX Forms of Bid and Appendix to Bid

9.1.3 VOLUME III

Section X Bill of Quantities

9.2 The bidder is expected to examine carefully the contents of the Bidding Documents. Failure to comply with the requirements of bid submission will be at the bidder's own risk. Pursuant to clause 28, bids which are not substantially responsive to the requirements of the bidding documents will be rejected.

10 Clarification of Bidding Document

10.1 Prospective bidders requiring any further information or clarification of the Bidding Documents may notify the Employer in writing or by fax (hereinafter, the term "fax" is deemed to include electronic transmission such as facsimile, cable and telex) at the Employer's mailing address indicated in the Invitation for Bids. The Employer will respond to any request for clarifications which he receives earlier than 15 days prior to the dead line for submission of bids, or queries raised during the pre-bid conference, if scheduled. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry.

10.2 In the event of any conflict or discrepancy within the bidding document, the priority of documents forming the document shall be as below

1. Addendum
2. Bidding Data
3. Instructions to Bidders
4. Invitation to Bid
5. Particular Conditions of Contract
6. General Conditions of Contract

7. Scope of Work and Technical Specifications
8. Drawings
9. Bill of Quantities

11 AMENDMENT OF BIDDING DOCUMENTS

- 11.1 At any time prior to the deadline for submission of Bids, the Employer may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the Bidding Documents by issuing addenda.
- 11.2 Any Addendum thus issued shall be part of the bidding documents pursuant to sub-clause 9.1, and it will be notified in writing or by fax to all purchasers of the bidding documents and will be binding on them. Prospective bidders shall acknowledge receipt of each addendum by fax to the Employer.
- 11.3 To afford prospective bidders reasonable time in which to take the addendum into account in preparing their bids, the Employer may, at its discretion, extend the deadline for the submission of bids, in accordance with Clause 22.

C. PREPARATION OF BIDS

12 LANGUAGE OF BID

- 12.1 The Bid prepared by the bidder and all correspondence and documents relating to the Bid exchanged between the bidder and the Employer, shall be written in either Hindi or English language. Supporting documents and printed literature furnished by the bidder may be written in another language, provided that 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 govern.

13 DOCUMENTS COMPRISING THE BID

- 13.1 The bid submitted by the bidder shall comprise of the following: Bid Form and Appendix to Bid; Bid Security; priced Bill of Quantities; the information on eligibility and qualification; and any other materials required to be completed and submitted by bidders in accordance with these Instructions to Bidders. The documents listed in Sections VIII, IX, X of Sub-clause 9.1 shall be filled-in without exception, subject to extensions thereof in the same format and to the provisions of Sub-clause 17.2 regarding the alternative forms of bid security.

14 BID PRICES

- 14.1 Unless stated otherwise in the bidding documents, the contract shall be for the construction of EWS/LIG / MIG-A Qtrs units work based on the percentage above/below the BOQ rates.
- 14.2 The bidder shall fill up the usual printed form stating at how much percent above or below the rates specified in the Schedule (BOQ) he is willing to undertake the work. Only one rate of percentage, more or less, on all the estimated rates/scheduled rates shall be mentioned separately for Part A , Part B and Part C
- 14.3 Quoted rates percent above /below must be in ink or typed out clearly and legibly in both figures and in words in the spaces provided in the form. The same person signing the bid on behalf of the bidder must sign any corrections.
- 14.4 All duties, taxes and other levies payable **including the 1% Labour cess** by the Contractor under the contract or for any other cause as of the date 28 days prior to the deadline for submission of bids shall be included in the rates and prices and the total bid price submitted by the bidder and the evaluation and comparison of bids by the Employer shall be made accordingly. Deduction of Income Tax at source will be made as per provisions of the Income Tax Act in force from time to time.
- 14.5 The rates and prices quoted by the bidder are subject to adjustment during performance of the Contract in accordance with the provisions of Clause 45 of the Conditions of Contract

Deleted: dwelling

15 COMPLIANCE OF APPRENTICESHIP ACT, 1961

- 15.1 The contractor shall comply with the provisions of the Apprenticeship Act, 1961, and the rules and orders issued, there under, from time to time. If he

fails to do so, his failure will be a breach of the contract and the original sanctioning authority in his discretion may cancel the contract. The Contractor shall also be liable for any pecuniary liability arising on account of violation by him of the provisions of the Act.

16 CURRENCIES OF BID AND PAYMENT

16.1 The unit rates and prices shall be quoted by the bidder entirely in Indian Rupees.

17 BID VALIDITY

17.1 Bids shall remain valid for a period, as stated in the Bidding Data, after the date of submission of bid as specified in Clause 22.

17.2 In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request that the bidders extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing or by fax. 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 his Bid, but will be required to extend the validity of his bid security for the period of, in compliance with Clause 17 in all aspects.

18 BID SECURITY

18.1 The bidder shall furnish, as a part of his bid, a bid security in the amount designated in the Bidding Data sheet. The Bid Security shall remain valid for a period of 30 days beyond the original validity period of the bid, and beyond any extension period subsequently requested under Sub-clause 15.2.

18.2 The bid security, at the bidder's option, shall be deposited in the form of Bank Draft, Pay Order, or Unconditional Bank Guarantee from any Nationalized/Scheduled Bank in India (Annex II) in favor of the Employer, along with each bid. The format of the bank guarantee shall be in accordance with sample form of bid security included in Section VII; other formats may be permitted, subject to the prior approval of the Employer.

18.3 Any bid not accompanied by an acceptable bid security shall be summarily rejected by the Employer as non-responsive.

18.4 The bid securities of unsuccessful bidders will be returned as promptly as possible after the expiration of the period of bid validity.

18.5 The bid security of the successful bidder will be returned when the bidder has signed the Agreement and furnished the required performance security.

18.6 The bid security may be forfeited:

- a) If a bidder withdraws its Bid during the period of bid validity, or
- b) If the bidder does not accept the correction of his bid price, pursuant to Clause 29, or
- c) In the case of a successful bidder, if the bidder fails within the specified time to:

- (i) sign the agreement, and
- (ii) Furnish the required performance security.

19 ALTERNATIVE BIDS

- 19.1 Bidders shall submit bids which comply with the Bidding Documents. Alternative bids will not be considered. The attention of bidders is drawn to the provisions of Clause 28 regarding the rejection of bids which do not substantively conform to the requirements of the Bidding Documents.

20 PRE-BID MEETING:

- 20.1 If required, the bidder or his official representative is invited to attend a pre-bid meeting which will be held on the date, time and venue indicated in Bidding Data sheet.
- 20.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 20.3 The bidder is requested to submit any question in writing or by fax, to reach the Employer not later than one week before the meeting.
- 20.4 Minutes of the meeting, including the text of the questions raised and the responses given, will be transmitted without delay to all purchasers of the bidding documents. Any modification of the bidding documents listed in the Clause 9, which may become necessary as a result of the pre-bid meeting, shall be made by the Employer exclusively through the issue of an addendum pursuant to Clause 11 and not through the minutes of the pre-bid meeting.
- 20.5 Nonattendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

21 FORMAT AND SIGNING OF BID

- 21.1 The bidder shall prepare one original and one copy of the technical proposal and the financial proposal, clearly marking each one as: "ORIGINAL-TECHNICAL PROPOSAL", "ORIGINAL-PRICE PROPOSAL", "COPY -TECHNICAL PROPOSAL", "COPY - PRICE PROPOSAL ", etc. as appropriate. In the event of discrepancy between the original and any copy, the original shall prevail
- 21.2 The original and all copies of the bid shall be typed or written in indelible ink (in the case of copies Photostats are also acceptable) and shall be signed by the bidder or a person or persons duly authorized to sign on behalf of the bidder, pursuant to Clauses 5.1 and 5.2, as the case may be. Such authorization shall be indicated by written power-of-attorney accompanying the Bid. All pages of the bid shall be initialed by the person or persons signing the bid.
- 21.3 The bid shall contain no alterations, omissions, additions or interlineations, except those which may be necessary to comply with instructions issued by the Employer, or as necessary to correct the errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.
- 21.4 The bidder shall furnish information as desired in the Form of Bid on commissions or gratuities, if any, paid or to be paid relating to this bid, and to contract execution if the bidder is awarded the contract.

D. SUBMISSION OF BIDS

1 SEALING AND MARKING OF BIDS

Deleted: 22

22.1 The bidder shall seal the original & copy of the technical proposal in envelop clearly marked as "A" and the original & copy of the price proposal in separate envelope clearly marked as "B".

Deleted: The bidder shall seal the original copy of the technical proposal, the original copy of the price proposal and each copy of the technical proposal and each copy of the price proposal in separate envelopes clearly marking each one as: "ORIGINAL-TECHNICAL PROPOSAL , ORIGINAL- PRICE PROPOSAL, COPY -TECHNICAL PROPOSAL, COPY -PRICE PROPOSAL, etc. as appropriate. IIIIIv

22.2 The bidder shall submit the bid in two envelopes i.e. Envelop- "A" (Technical Proposal) It shall contain only Volume I (both original & copy) of the tender document and shall be sealed and marked as Envelop-"A" Envelop-"B" (Price Proposal)It shall contain only volume II (both original & copy) of tender document and shall be sealed and marked as Envelop "B".

Deleted: The bidder shall seal Envelop" A

22.3 the bidder shall seal and mark the two envelopes i.e. Envelop "A" and Envelop "B" and tag them together and shall place both the envelopes in an outer Envelop duly sealed, bearing name of work and name of bidding contractor.

Deleted: 4

Deleted: the original bids and each copy of the bids in an inner and outer envelope, duly marking the envelopes as ORIGINAL and "COPY".

22.4 "The Envelop "A", Envelop "B" and outer envelope shall:

a) Be addressed to the Employer at the following address:

Deleted: The inner and outer envelopes shall; ¶

Secretary
Urban Improvement Trust
Todarmal Marg,
Ajmer -305001, Rajasthan
and

b) Bear the following identification:

Bid for

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units (G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832 Ajmer.

Formatted: Font: Bold

Formatted: Indent: Left: 0.02"

(CONTRACT PACKAGE NO : 01 UIT/30056-85/48/2011-12 /)
NIT NO. 1 UIT/BSUP-JNNURM-

Deleted: Construction of total 932 Nos dwelling units (G+1) in Ajmer under JnNURM project at following relocation sites :-¶
(A) 932 Nos of dwelling units at solampur gram ¶

DO NOT OPEN BEFORE 16:00 hrs on 22-02-2012

Deleted: JnNURM/BSUP/Ajmer

22.4 In addition to the identification required in Sub-Clause 22.3, the inner envelope shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared "late" pursuant to Clause 24.

Deleted: 5

Deleted: 3

Deleted: 02.06

22.5 If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the bid.

23 DEADLINE FOR SUBMISSION OF BIDS

23.1 The original Bid, together with the required copies, must be received by the Employer at the address specified in Sub-clause 21.2 no later than the date and time as stipulated in the Bidding Data sheet.

23.2 The Employer may, at his discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with Sub-clause 11.3 in which case all rights and obligations of the

Employer and bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

24 LATE BIDS

- 24.1 Any Bid received by the Employer after the deadline for submission of Bids prescribed by the Employer, pursuant to Clause 22, will be declared "Late" and rejected and returned unopened to the bidder.

25 MODIFICATION AND WITHDRAWAL OF BIDS

- 25.1 The bidder may modify or withdraw his Bid after the Bid's submission, provided that written notice of the withdrawal is received by the Employer prior to the deadline prescribed for submission of Bids.
- 25.2 The bidder's modification or withdrawal notice shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause 21, with the outer and inner envelopes additionally marked "Modification" or "Withdrawal" as appropriate. A withdrawal notice may also be sent by cable/fax but must be followed by a signed confirmation copy.
- 25.3 No Bid may be modified after the bid's submission, or subsequent to the deadline for submission of bids.
- 25.4 Withdrawal of bid during the interval between the deadline for submission of bids and the expiration of the period of bid validity specified in the Form of Bid may result in forfeiture of Bid Security pursuant to Clause 17.

E. OPENING AND EVALUATION OF TECHNICAL PROPOSALS

26 OPENING OF TECHNICAL PROPOSALS

- 26.1. The Employer will open the **Technical proposals**, including modifications made pursuant to Clause 25, in the presence of bidders' representatives who choose to attend, **at 15:30 hrs on 02.06** at the following location:
Office of the Executive Engineer, Urban Improvement Trust, Todarmal Marg, Ajmer, Rajasthan.
- The bidders' representatives who are present shall sign a register evidencing their attendance.
- 26.2. The price proposals will remain unopened and will be held in the custody of the Employer until the time of bid opening of the price proposals. The time and date and location of the bid opening of the price proposals will be advised in writing or by fax by the Employer and will follow the receipt of approval by the ADB of the evaluation of the technical proposals.
- 26.3. Envelopes marked "WITHDRAWAL" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause 25 shall not be opened.
- 26.4. The bidders' names, bid modifications and withdrawals, and the presence or absence of requisite bid security and such other details as the Employer may consider appropriate, will be announced and recorded by the Employer at the opening. The bidders' representatives will be required to sign this record.
- 26.5. The Employer shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with Sub-Clause 26.4.

27 PRELIMINARY EXAMINATION OF TECHNICAL PROPOSAL

- 27.1. The Employer will examine the bids to determine whether they are complete, whether the documents have been properly signed, whether the required security is included, and whether the bids are generally in order. Any bids found to be non-responsive for any reason or not meeting the minimum levels of the performance or other criteria specified in the bidding documents will be rejected by the Employer and not included for further consideration.

28 EVALUATION AND COMPARISON OF TECHNICAL PROPOSAL

- 28.1. The Employer will carry out a detailed evaluation of the bids in order to determine whether the bidders are qualified and whether the 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:
- (a) Qualification**
- (i) the determination will take into account the Bidder's financial, technical and production capabilities and past performance; it will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to Sub-Clause 5.1 (b), as well as such other information as the Employer deems necessary and appropriate; and

- (ii) An affirmative determination will be a prerequisite for the Employer to continue with the evaluation of the technical proposal; a negative determination will result in rejection of the Bidder's bid.

(b) Technical

- (i) overall completeness and compliance with the Employer's Requirements; the technical merits of plant and equipment offered and deviations from the Employer's Requirements; suitability of the facilities offered in relation to the environmental and climatic conditions prevailing at the site; quality, function and operation of any process control concept included in the bid;
- (ii) achievement of specified performance criteria by the facilities;
- (iii) compliance with the time schedule called for in Appendix to Technical Proposal and any alternative time schedules offered by Bidders, as evidenced by a milestone schedule provided in the bid;
- (iv) type, quantity and long-term availability of spare parts and maintenance services;
- (v) any deviations to the commercial and contractual provisions stipulated in the bidding documents.

29 CLARIFICATION OF TECHNICAL PROPOSAL

- 29.1. The Employer may conduct clarification meetings with each or any Bidder to discuss any matters, technical or otherwise, where the Employer requires amendments or changes to be made to the Technical Proposal.
- 29.2. Where amendments or changes are required by the Employer, bidders will be requested in writing to adjust their proposals accordingly and submit a supplementary price proposal within 14 days. The supplementary price proposal should only contain the changes in price resulting from the changes in the technical proposals. Bidders should note that, if the Employer, during the evaluation of the price proposals, considers that the changes in price are unrealistic in comparison with the original price proposal, the bid is liable to be rejected. Bidders not wishing to change their technical proposals may withdraw from the bidding process and their price proposals will be returned unopened.
- 29.3. The Bidder shall seal the original supplementary price proposal and each copy (number of copies to be the same as the number required in the bid submission) in an inner and outer envelope clearly marking each one as: "ORIGINAL -SUPPLEMENTARY PRICE PROPOSAL", "COPY NO.1 - SUPPLEMENTARY PRICE PROPOSAL", etc. as appropriate.
- 29.4. The inner and outer envelope shall be addressed and bear the name of Contract and Bid Reference Number as specified in Sub-Clause 22.3.
- 29.5. Supplementary price proposals which are not received in the time required by the Employer will result in the rejection of the bid.

30 INVITATION TO ATTEND OPENING OF PRICE PROPOSALS

- 30.1. At the end of the evaluation of the technical proposals and after receiving the approval of competent authority, the Employer will invite bidders who have submitted substantially responsive technical proposals and who have been determined as being qualified for award to attend the bid opening of

the price proposals. Bidders shall be given reasonable notice of the price proposal bid opening.

- 30.2. After receiving the approval of competent authority, the Employer will notify Bidders that have been rejected on the grounds of being substantially non-responsive to the requirements of the bidding documents in writing and return the unopened price proposal.

F. OPENING AND EVALUATION OF PRICE PROPOSALS

31 OPENING OF PRICE PROPOSALS

- 31.1. The Employer will open the price proposals and, if provided, the supplementary price proposals of all bidders who submitted substantially responsive technical proposals at the time and date at the location advised to the bidders. The bidder's representatives who are present shall sign a register evidencing their attendance.
- 31.2. The bidder's names, the Bid Prices including Supplementary Price Proposals, the total amount of each bid, any discounts, and such other details as the Employer may consider appropriate, will be announced and recorded by the Employer at the opening. The bidder's representatives will be required to sign this record.
- 31.3. The Employer shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with Sub-Clause 32.2.

32 PROCESS TO BE CONFIDENTIAL

- 32.1 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.

33 CLARIFICATION OF BIDS AND CONTACTING THE EMPLOYER

- 33.1 To assist in the examination, evaluation and comparison of Bids, the Employer may, at its discretion, ask the bidder for a clarification of its Bid, including breakdown of rates. The request for clarification and responses to the requests shall be in writing, and no change in the price or substance of the Bid shall be sought, offered or permitted, except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids in accordance with Clause 34.
- 33.2 Subject to Sub Clause 32.1, no bidder shall contact the Employer on any matter relating to its bid from the time of the bid opening to the time the Contract is awarded. If the bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.
- 33.3 Any effort by the bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in rejection of the bidder's bid.

34 PRELIMINARY EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS

- 34.1 Prior to the detailed evaluation of bids, the Employer will determine whether each bid (i) meets the eligibility criteria of the ADB; (ii) has been properly signed; (iii) is accompanied by the required securities; (iv) is substantially responsive to the requirements of the bidding documents; and (v) provides any clarifications and / or substantiation that the Employer may require pursuant to Sub-clause 32.1.
- 34.2 A substantially responsive bid is one which conforms to all the terms, conditions and specifications of the bidding documents, without material deviation or reservations. A material deviation or reservation is one:
- (i) which effects in any substantial way the scope, quality or performance of the Works;
 - (ii) which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights; or
 - (iii) Whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 34.3 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. Conditional bids will be deemed to be not substantially responsive, and may be rejected by the Employer.
- 34.4 The above notwithstanding, the Employer reserves the right to accept or reject any variation or deviation in the submitted tenders if such irregularity does not materially deviate from the terms, conditions and specifications of the bidding documents, and if it will not affect unfairly the competitive position of other bidders, and if it is in the Employer's interest to do so.

35 CORRECTION OF ERRORS

- 35.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Arithmetical errors will be rectified on the following basis.
- (i) Where there is a difference between the rates in figures and words, lower of the two rates shall be taken as valid and corrected accordingly.
 - (ii) When the rate quoted by the contractor in figures and words tallies but the amount is not worked out correctly, the rate quoted by the contractor shall be taken as correct and not the amount worked out.
 - (iii) If rate/rates against any item or items in BOQ are found to be omitted, the rate given in the BSR of PWD Ajmer circle 2009 (Civil, Sanitary, Road) & BSR of PWD Jaipur circle 2008 (Electrical), if the rate for a particular part or parts of the item is not in the Schedule of Rates, BSR of PWD Ajmer circle 2009 (Civil, Sanitary, Road) & BSR of PWD Jaipur circle 2008 (Electrical), the rate for such part or parts will be determined by the Engineer-in-Charge on the basis of the BSR of PWD Ajmer circle 2009 (Civil, Sanitary, Road) & BSR of PWD Jaipur circle 2008 (Electrical), as per analysis of the rates approved by the employer during preparation of BOQ shall be taken into account by UIT Ajmer for such item while preparing comparative statement and contractor shall be bound to execute such item on these rates'
 - (iv) In case where percentage is given but the 'above' or 'below' not scored, the tender will be non-responsive.

- 35.2 The amount stated in the Form of Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, its bid will be rejected, and the bid security may be forfeited in accordance with Clause 17.6.

37 EVALUATION AND COMPARISON OF PRICE PROPOSALS

- 36.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause 33 and qualified for award of contract in accordance with Clause 5.
- In evaluating the bids, the Employer will determine for each bid the Evaluated Bid Price by adjusting the bid price as follows:
- a) Making any correction for errors pursuant to Clause 33;
 - b) Applying any discounts offered by the bidder.
- 36.2 The Employer reserves the right to accept or reject any variation, deviation. Variations, deviations and other factors which are in excess of the requirements of the bidding documents or otherwise result in the accrual of unsolicited benefits to the Employer shall not be taken into account in the bid evaluation.
- 36.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, if applicable, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
- 36.4 In case of lump sum contract, if the bid of the successful bidder is seriously unbalanced in relation to or substantially below the Employer's estimate of the cost of work to be performed under the Contract, the Employer may require the bidder to produce detailed price analysis for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the performance security set forth in Clause 40 be increased at the expense of the successful bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful bidder under the contract.

AWARD OF CONTRACT

- Award37.1 Subject to the provisions of Clause 37, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the Lowest Evaluated Bid Price for this contract, when evaluated in conjunction with the other contracts to be awarded concurrently for this project and taking into account any discounts offered by bidders, provided that such bidder has been determined to be (i) eligible in accordance with the provisions of Clause 3 and (ii) qualified in accordance with the provisions of Clause 5.

Formatted: Font: 11 pt, Not Bold

EMPLOYER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

- 38.1 Notwithstanding Clause 36, 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 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.

NOTIFICATION OF AWARD

- 39.1 Prior to expiration of the period of bid validity prescribed by the Employer, the Employer will notify the successful bidder by fax, confirmed by registered letter, that his bid has been accepted. This letter, hereinafter referred to as the "Letter of Acceptance", shall name the sum which the Employer will pay the Contractor in consideration of the execution, completion and maintenance of the Works by the contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called "the Contract Price")
- 39.2 The notification of the award will constitute the formation of the Contract
- 39.3 Upon furnishing by the successful bidder of a Performance Security, the Employer will promptly notify the other bidders that their bids have been unsuccessful.

SIGNING OF AGREEMENT

- 40.1 At the same time that he notifies the successful bidder that his bid has been accepted, the Employer will send the bidder the Form of Agreement provided in the bidding documents, incorporating all agreements between the parties.
 - 40.2 Within 10 (ten) calendar days from the date of issue of the Letter of Acceptance, the successful bidder shall sign the Form of Agreement, in duplicate, on non-judicial stamp paper of value as per regulation of the Government of Rajasthan and return it to the Employer. One copy of the signed agreement will be provided to the successful Contractor, and the original will be retained by the Employer.
- 41 **PERFORMANCE SECURITY**
- 41.1 Deleted in its entirety.
 - 41.2 Deleted in its entirety.

CORRUPT OR FRAUDULENT PRACTICES

- 42.1 The Employer, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Employer:
- a) defines for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving or soliciting of any thing of value to influence the action of any such official in the procurement process or in contract execution; and
 - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to and after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.
 - b) will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
 - c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded an ADB-financed contract if at any time it determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, an ADB-financed contract.

fittings.

Annex I

INDICATIVE LIST OF NATIONALIZED/SCHEDULED BANKS

Algemene Bank, Nederland N.V.	Deutsche Bank A.G.
-------------------------------	--------------------

Deleted: ¶

Deleted:Page Break.....
Page Break.....

Allahabad Bank	Emirates Commercial Bank Ltd.
Grindlays American Express Bank Ltd.	European Asian Bank
Standard Chartered Grindlays Bank Ltd.	Federal Bank Ltd., Alwaye
Bank of America National Trust and Saving Association	Indian Bank
Bank of Bahrain and Kuwait B.S.C.	Indian Overseas Bank
Bank of Baroda	Jammu and Kashmir Bank Ltd., Srinagar
Bank of Credit and Commerce Intern. (Overseas) Ltd.	Karnataka Bank Ltd.
Bank of India	Mercantile Bank Ltd.
Bank of Karad Ltd., Karad	Mitsui Taiyo Kobe Bank Ltd.
Bank of Madurai Ltd., Madurai	New Bank of India, Ltd
Bank of Maharashtra	Oriental Bank of Commerce
Bank of Nova Scotia, Toronto (Canada)	Punjab and Sind Bank, Amritsar
Bank of Oman Ltd.	Punjab National Bank
Bank of Rajasthan Ltd Udaipur	Standard Chartered Bank
Bank of Thailand Ltd.	State Bank of Bikaner of Jaipur
Bank of Tokyo	State Bank of Hyderabad
Banque de l'Indochine et de Suez (INDOSUEZ)	State Bank of India
Banque Nationale de Paris	State Bank of Indore
Benares State Bank	State Bank of Patiala
Bharat Overseas Bank Ltd Madras	State Bank of Saurashtra, Bhavnagar
British Bank of the Middle East	State Bank of Travancore
Canara Bank	Syndicate Bank
Central Bank of India	UCO Bank
Chartered Bank	Union Bank of India
City Union Bank Ltd	United Bank of India
Citibank N.A.	United Western Bank
Corporation Bank Ltd.	Vijaya Bank
Credit Lyonnais	
Dena Bank	

← - - - - **Formatted:** Normal, Indent:
Hanging: 0.5"

GOVERNMENT OF

RAJASTHAN

URBAN IMPROVEMENT TRUST : AJMER

**CONSTRUCTION OF G+3 HOUSES UNDER AFFORDABLE
HOUSING POLICY-2009 MODEL NO. 1**

BID DOCUMENT FOR

Formatted: Centered

**Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling
units (G+3) Houses under affordable Housing scheme at Lohagal
khasra no. 832 Ajmer.**

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

SECTION - II

BIDDING DATA

SECTION II. - BIDDING DATA

The following specific data for the works to be procured shall complement, amend, or supplement the provisions in Instructions to Bidders – Section I. Whenever there is a conflict, the provisions herein shall prevail over those in the Instructions to Bidders.

Instructions to Bidders Clause Reference

<u>Clause 1.1</u>	<u>The Employer is:</u> Executing Agency, the Urban Development Department of the State of Rajasthan. The authorized representative of the Employer is Secretary, Urban Improvement Trust, Ajmer.										
<u>Clause 1.2</u>	<u>Name of the Works:</u> Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units (G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832 Ajmer. (under percentage rate basis)										
<u>Clause 1.2</u>	<u>Period of Completion:</u> The Works shall be completed in its entirety within Eleven (11) months from the Start Date, which shall be the date of issue of the Notice to Proceed or such other Start Date as may be specified in the Notice to Proceed.										
<u>Clause 2.1</u>	The type of Contract is percentage rate contract in two envelope										
<u>Clause 4.2</u>	JV consisting of not more than two entities may quote.										
<u>Clause 4.3</u>	<p><u>Eligibility Criteria:</u></p> <p><u>I Experience & Technical Qualifications</u> The bidder should have completed a civil engineering project which includes any work of construction of Buildings/ Retaining wall / Culverts / Bridges of at least Rs.171.37 Lacs in last five years (In case of JV the lead partner must have completed a civil engineering project of at least 128.52 lacs and the other JV partner must have completed a civil engineering project of at least 42.85 lacs in last five years). Whoever Civil Engineering project of roads work & pipe line / sewer line shall not be considered for eligibility Criteria. Work done for Private Agency and sublet work experience are not allowed. For the present price level for turn over cost of completed a single civil Engineering project as above the previous year's value shall be given weight age of 10% per year as under :-</p> <table border="0"> <tr> <td>A. For Last year</td> <td>1.00</td> </tr> <tr> <td>B. For one year before</td> <td>1.10</td> </tr> <tr> <td>C. For two year before</td> <td>1.21</td> </tr> <tr> <td>D. For three year before</td> <td>1.33</td> </tr> <tr> <td>E. For four year before</td> <td>1.46</td> </tr> </table> <p>For current year, the price level shall be 1.00</p> <p><u>II Financial:</u></p> <p>(a) Average annual Turnover of last three years should be 257.07 Lacs. (In case of JV the lead partner must have Average annual Turnover of last three years should be of Rs. 192.80 lacs and for the other JV partner Average annual Turnover of last three years should be of Rs 64.27 lacs)</p> <p>(b) Available Working Capital based on the current assets and</p>	A. For Last year	1.00	B. For one year before	1.10	C. For two year before	1.21	D. For three year before	1.33	E. For four year before	1.46
A. For Last year	1.00										
B. For one year before	1.10										
C. For two year before	1.21										
D. For three year before	1.33										
E. For four year before	1.46										

Formatted: Indent: Left: 0.01", Hanging: 0.01"

Formatted: Indent: Left: 0.07"

Formatted: Indent: Left: 0.07"

Formatted: Bullets and Numbering

	<p><u>current liabilities (including the short term loan repayments due in current year) should be Rs. 171.37 Lacs.(In case of JV, the lead partner will have to meet 0.75 times the working capital requirements and the other JV partner should meet at least 0.25 times working capital requirements.</u></p> <p><u>(Available Working Capital shall be evaluated as Current Assets + Revolving Line of Credit – Current Liabilities (including loan repayment due within one year)</u></p> <p><u>(c) Net Worth: In Case of JV, the net worth of both the partner should be positive.</u></p>
<u>Clause 10.1</u>	<p>For clarification purpose only, the Employer's address is: <u>Secretary,</u> <u>Urban Improvement Trust,</u> <u>City: Ajmer</u> <u>ZIP Code: 305001</u> <u>Country: India</u> <u>Telephone: +91-145-2627748, 2627749, 2425462</u> <u>Facsimile number: +91-145-2620126</u> <u>Electronic mail address: coordinator@uitajmer.org</u></p>
<u>Clause 17.1</u>	<p><u>Bid Validity:</u> <u>Bids shall remain valid for a period of 120 (one hundred twenty) days after the date of submission of the bid.</u></p>
<u>Clause 18.1</u>	<p><u>Bid Security:</u> <u>A Bid Security in the amount of Rs. 257075 (Rupees Two Lacs Fifty Seven Thousand Seventy Five only) shall be provided as a part of the bid, which shall remain valid for a period of 30 (thirty) days beyond the validity of the bid.</u></p>
<u>Clause 18.5</u>	<p><u>Bid Security:</u> <u>After satisfactory completion of Defect Liability Period provided that the final bill has been paid.</u></p>
<u>Clause 20.1</u>	<p><u>Pre-Bid Meeting:</u> <u>A pre-bid meeting shall be held at the following date, time, and location:</u> <u>Date: 13.02.2012</u> <u>Time: 1500 hrs</u> <u>Place: Executive Engineer,</u> <u>Urban Improvement Trust,</u> <u>Todarmal Marg,</u> <u>AJMER.</u></p>
<u>Clause 22.2</u>	<p><u>Sealing and Marking of Bids:</u> <u>(a) Bids shall be submitted at the Office of the Employer, at the address provided in Clause 10.1 above.</u> <u>(b) Envelopes shall bear the following markings:</u></p> <p><u>Bid For:</u></p>

Formatted: Bullets and Numbering

	<p><u>Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units (G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832 Ajmer.</u> <u>(under percentage rate basis)</u></p> <p><u>(c) N. I. T. No: UIT/30056-85/48/2011-12</u> <u>Contract Package No: 01</u> <u>Do not Open Before: 16:00 Hrs. on 22.02.2012</u></p>	<p>Formatted: Indent: Left: 0.04"</p> <p>Formatted: Indent: Left: 0.06"</p> <p>Formatted: Font: 10 pt</p> <p>Formatted: Indent: Hanging: 0.43"</p> <p>Formatted: Font: 10 pt</p> <p>Formatted: Font: 11 pt</p>
<u>Clause 23.1</u>	<u>Dead Line for Submission of Bids:</u> Bids shall be submitted at the address stipulated in Clause 10.1 above, not later than 15:00 hours on 22.02.2012	
<u>Clause 26.1</u>	<u>Bid Opening:</u> Bids shall be opened in the presence of bidders' representatives who chose to attend at the date, time and location specified below: <u>Date on 22.02.2012</u> <u>Time: 16:00 hours</u> <u>Location:</u> <u>Executive Engineer,</u> <u>Urban Improvement Trust,</u> <u>Todarmal Marg,</u> <u>Ajmer-305001, Rajasthan</u>	
<u>Clause 31.1</u>	<u>Price Bid Opening:</u> Price Technical Bids shall be opened in the presence of bidders' representatives who chose to attend at the date, time and location specified below: <u>Date on : Information given separately to bidders.</u> <u>Location:</u> <u>Executive Engineer,</u> <u>Urban Improvement Trust,</u> <u>Todarmal Marg,</u> <u>Ajmer-305001, Rajasthan</u>	
<u>Clause 41</u>	<u>Clause 41 deleted in its entirety.</u>	

Formatted: Centered

GOVERNMENT OF RAJASTHAN

URBAN IMPROVEMENT TRUST : AJMER

**CONSTRUCTION OF G+3 HOUSES UNDER AFFORDABLE
HOUSING POLICY-2009 MODEL NO. 1**

BID DOCUMENT FOR

**Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units
(G+3) Houses under affordable Housing scheme at Lohagal khasra no.
832 Ajmer.**

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

SECTION - III

CONDITIONS OF CONTRACT

**RPWA 100
PWF & AR, GOR**

INDEX

<u>GENERAL CONDITIONS OF CONTRACT</u>	<u>34</u>
<u>1 SECURITY DEPOSIT.....</u>	<u>34</u>
<u>2 COMPENSATION FOR DELAY</u>	<u>35</u>
<u>3 RISK & COST CLAUSE</u>	<u>37</u>
<u>4 CONTRACTOR REMAINS LIABLE TO PAY COMPENSATION, IF ACTION NOT TAKEN UNDER CLAUSE 3.....</u>	<u>38</u>
<u>5 EXTENSION OF TIME</u>	<u>38</u>
<u>5A Monthly Return Of Extra Claims</u>	<u>39</u>
<u>6 FINAL CERTIFICATE.....</u>	<u>39</u>
<u>7 Payment on Intermediate Certificate to be regarded as advance.....</u>	<u>39</u>
<u>7A TIME LIMIT FOR PAYMENTS OF FINAL BILLS</u>	<u>40</u>
<u>8 BILLS TO BE SUBMITTED MONTHLY</u>	<u>40</u>
<u>8A CONTRACTOR TO BE GIVEN TIME TO FILE OBJECTION TO THE MEASUREMENTS RECORDED BY THE DEPARTMENT.....</u>	<u>40</u>
<u>8B RECOVERY OF COST OF PREPARATION OF THE BILL</u>	<u>41</u>
<u>9 BILLS TO BE ON PRINTED FORMS</u>	<u>41</u>
<u>9A PAYMENTS OF CONTRACTOR'S BILLS TO BANKS</u>	<u>41</u>
<u>10 STORES SUPPLIED BY GOVERNMENT</u>	<u>41</u>
<u>10A REJECTION OF MATERIALS PROCURED BY THE CONTRACTOR</u>	<u>41</u>
<u>10B PENAL RATE IN CASE OF EXCESS CONSUMPTION</u>	<u>42</u>
<u>10C HIRE OF PLANT AND MACHINERY.....</u>	<u>43</u>
<u>11 WORKS TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ORDERS ETC.....</u>	<u>43</u>
<u>12 Alterations, Omissions and Additions in Work.....</u>	<u>43</u>
<u>13 NO COMPENSATION FOR ALTERATION IN OR RESTRICTION OF WORK TO BE CARRIED OUT.....</u>	<u>45</u>
<u>14 ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK</u>	<u>46</u>
<u>15 WORK TO BE OPEN TO INSPECTION: CONTRACTOR OR HIS RESPONSIBLE AGENT TO BE PRESENT</u>	<u>46</u>
<u>16 NOTICE TO BE GIVEN BEFORE ANY WORK IS COVERED UP.....</u>	<u>46</u>
<u>17 CONTRACTOR LIABLE FOR DAMAGE DONE AND FOR IMPERFECTIONS</u>	<u>47</u>
<u>18 CONTRACTOR TO SUPPLY PLANT, LADDERS, SCAFFOLDING ETC.</u>	<u>47</u>
<u>19 WORK NOT TO BE SUB-LET, CONTRACT MAY BE RESCINDED AND SECURITY DEPOSIT AND PERFORMANCE FORFEITED FOR SUB-LETTING. 47</u>	<u>47</u>
<u>20 SUMS PAYABLE BY WAY OF COMPENSATION TO BE CONSIDERED AS REASONABLE COMPENSATION WITHOUT REFERENCE TO ACTUAL LOSS. 48</u>	<u>48</u>
<u>21 CHANGES IN CONSTITUTION OF FIRM.....</u>	<u>48</u>
<u>22 WORK TO BE UNDER DIRECTION OF ENGINEER-IN-CHARGE</u>	<u>48</u>
<u>23 STANDING COMMITTEE FOR SETTLEMENT OF DISPUTES</u>	<u>48</u>
<u>23A CONTRACTOR TO INDEMNIFY FOR INFRINGEMENT OF PATENT OR DESIGN 49</u>	<u>49</u>
<u>24 IMPORTED STORE ARTICLES TO BE OBTAINED FROM GOVERNMENT 49</u>	<u>49</u>
<u>25 LUMP-SUMS IN ESTIMATES</u>	<u>49</u>
<u>26 ACTION WHERE NO SPECIFICATION</u>	<u>50</u>
<u>27 DEFINITION OF WORK.....</u>	<u>50</u>
<u>27A DEFINITION OF ENGINEER-IN-CHARGE.....</u>	<u>50</u>

<u>28</u>	<u>Delay in Start of Work.....</u>	<u>50</u>
<u>29</u>	<u>PAYMENTS AT REDUCED RATES ON ACCOUNT OF ITEMS OF WORK NOT ACCEPTED AND NOT COMPLETED TO BE AT THE DISCRETION OF THE ENGINEER-IN-CHARGE</u>	<u>50</u>
<u>29A</u>	<u>PAYMENTS AT PART RATES</u>	<u>50</u>
<u>30</u>	<u>Contractor's percentage, whether applied to net or gross amount of bills</u>	<u>50</u>
<u>31</u>	<u>CONTRACTOR TO ADHERE TO LABOUR LAWS/REGULATION</u>	<u>51</u>
<u>32</u>	<u>WITHDRAWAL OF WORK FROM THE CONTRACTOR.....</u>	<u>51</u>
<u>33</u>	<u>clearance, leveling and dressing</u>	<u>51</u>
<u>34</u>	<u>PROTECT WORKS.....</u>	<u>51</u>
<u>35</u>	<u>CONTRACTOR LIABLE FOR SETTLEMENT OF CLAIMS CAUSED BY HIS DELAYS.....</u>	<u>51</u>
<u>36</u>	<u>Fees, Royalties, duties, royalties, Taxes, water and power connections</u>	<u>52</u>
<u>36C</u>	<u>PAYMENT OF SALES TAX, AND ANY OTHER TAXES</u>	<u>52</u>
<u>37</u>	<u>REFUND OF Performance guarantee & SECURITY DEPOSIT.....</u>	<u>52</u>
<u>38</u>	<u>FAIR WAGE CLAUSE</u>	<u>53</u>
<u>39</u>	<u>CONTRACTOR TO ENGAGE TECHNICAL STAFF</u>	<u>53</u>
<u>40</u>	<u>SAFETY CODE</u>	<u>54</u>
<u>41</u>	<u>NEAR RELATIVES BARRED FROM TENDERING</u>	<u>54</u>
<u>42</u>	<u>RETIRED GAZETTED OFFICERS BARRED FOR 2 YEARS</u>	<u>54</u>
<u>43</u>	<u>QUALITY CONTROL.....</u>	<u>54</u>
<u>44</u>	<u>DEATH OF CONTRACTOR</u>	<u>54</u>
<u>45</u>	<u>Price Variation Clause:</u>	<u>56</u>
<u>45A</u>	<u>Price Variation in – installation of elevators, supply/installation of Centrally Air Conditioning and Central Evaporating Cooling WORKS:.....</u>	<u>57</u>
<u>46</u>	<u>Force-MAJEURE.....</u>	<u>61</u>
<u>47</u>	<u>General Discrepancies and Errors.....</u>	<u>61</u>
<u>48</u>	<u>Post payment Audit & Technical Examination</u>	<u>62</u>
<u>48A</u>	<u>Pre Check or Post Check of Bills</u>	<u>62</u>
<u>48B</u>	<u>Check Measurements.....</u>	<u>62</u>
<u>49</u>	<u>Dismantled materials</u>	<u>63</u>
<u>50</u>	<u>Recovery from Contractors.....</u>	<u>63</u>
<u>51</u>	<u>Jurisdiction of Court.....</u>	<u>63</u>

("Copy of appendix XI of PWF&AR, Govt. of Rajasthan effective from 01.07.99 and subsequent addendum dated 19.03.2001 & 29.03.2001 and other amendments up to date. In case of any typographical error or omission or alteration the original version of the same shall be valid.")

GENERAL CONDITIONS OF CONTRACT

Formatted: Title, Indent: Left: 0", First line: 0", Tabs: Not at 0.68"

SECURITY DEPOSIT

1.1. "The security deposit @ 10% of the gross amount of the running bill shall be deducted from each running bill and shall be refunded as per rules on completion of the contract as per terms and conditions. The earnest money deposited shall however be adjusted while deducting security deposit from the first running bill of the contractor. There will be no maximum limit of security deposit.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

Formatted: Indent: Left: 0", Hanging: 0.53", Outline numbered + Level: 2 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.75" + Indent at: 0.55", Tabs: 0.51", List tab + Not at 0.75"

1.2. A contractor may, however, elect to furnish bank guarantee or any acceptable form of security for an amount equal to the full amount of security deposit @ 10% of the work order before or at the time of executing the agreement. In that case earnest money may be refunded only after furnishing of the bank guarantee as above. During the execution of the work or after completion of the work also a contractor may replace the security deposit by furnishing bank guarantee for an equal amount. However, during execution of the work if cost of work exceeds as shown at the time of furnishing bank guarantee, balance security deposit shall be deducted from the Running Account Bills."

1.3. If the contractor during the course of execution of the work or after completion of the work desires to replace the security deposit paid in cash or deducted from running bills by bank guarantee, he may be allowed to furnish a bank guarantee in the prescribed form for the required amount and period and after accepting of such bank guarantee the amount of such security deposit earlier deposited/deducted may be refunded.

1.4. All compensation or other sums of money payable by the Contractor to Government under the terms of his contract may be deducted from or paid by the sale of a sufficient part of his Security Deposit, or from interest arising therefrom, or from any sums, which may be due or may become due to the Contractor by the Government on any account whatsoever, and in the event of his Security Deposit being reduced by reason of any such deduction or sale as aforesaid, the Contractor shall within ten days thereafter, make good in cash or Bank Guarantee of Nationalized/Scheduled bank, as aforesaid, any sum or sums which may have been deducted from or raised by sale of his Security Deposit or any part thereof.

1.5. In case of Bank Guarantee of any Nationalized /Scheduled Bank is furnished by the Contractor to the Government, as part of the Security Deposit and the bank goes into liquidation or, for any reason is unable to make payment against the said Bank Guarantee, the loss caused thereby shall fall on the Contractor and the Contractor shall forthwith, on demand, furnish additional security to the Government to make good the deficit.

1.6. The liability or obligation of the bank under the Guarantee Bond shall not be affected or suspended by any dispute between the Engineer-in-Charge and the Contractor, and the payment, under the Guarantee Bond by the bank to the Government shall not wait till disputes are decided. The bank shall pay the amount under the Guarantee, without any demur,

merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the Contractor. The demand, so made, shall be conclusive as regards to amount due and payable by the bank, under the guarantee limited to the amount specified in the Guarantee Bond. The guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

1.7. The Bank Guarantee shall remain valid up to the specified date unless extended on demand by the Engineer-in-Charge which shall include the period of completion of the contract and the defect removal period as per terms of the Agreement. Bank's liability shall stand automatically discharged unless a claim in writing is lodged with the Bank within the period stated in the Bank Guarantee including the extended period. After satisfactory completion of the contract and clearance of all dues by the Contractor, the Chief Engineer will discharge the Bank Guarantee after expiry of the original or the extended period, as the case may be. In case the date of expiry of the Bank Guarantee is a holiday, it will be deemed to expire on the close of the next working day.

1.8. Government is not concerned with any interest accruing to the Contractor on ny form of Security (primary or collateral) lodged by him with the bank or any sums payable to sureties obtained by the Bank as counter guarantee to secure its own position. These will be the matters between the Bank and the Contractor.

2 COMPENSATION FOR DELAY

Formatted: Heading 1,Heading 1
Char Char Char Char, Space After: 0
pt, No bullets or numbering

2.1 THE TIME ALLOWED FOR CARRYING OUT THE WORK (30MONTHS), AS ENTERED IN THE TENDER, SHALL BE STRICTLY OBSERVED BY THE CONTRACTOR AND SHALL BE RECKONED FROM THE 10TH DAY AFTER THE DATE OF WRITTEN ORDER TO COMMENCE THE WORK IS GIVEN TO THE CONTRACTOR. IF THE CONTRACTOR DOES NOT COMMENCE THE WORK WITHIN THE PERIOD SPECIFIED IN THE WORK ORDER, HE SHALL STAND LIABLE FOR THE FORFEITURE OF THE AMOUNT OF EARNEST MONEY AND SECURITY DEPOSIT. BESIDES, APPROPRIATE ACTION MAY BE TAKEN BY THE ENGINEER-IN-CHARGE/COMPETENT AUTHORITY TO DEBAR HIM FROM TAKING PART IN FUTURE TENDERS FOR A SPECIFIED PERIOD OR BLACK LIST HIM. THE WORK SHALL, THROUGHOUT THE STIPULATED PERIOD OF COMPLETION OF THE CONTRACT, BE PROCEEDED WITH ALL DUE DILIGENCE, TIME BEING ESSENCE OF THE CONTRACT, ON THE PART OF THE CONTRACTOR. TO ENSURE GOOD PROGRESS DURING THE EXECUTION OF WORK, THE CONTRACTOR SHALL BE BOUND, IN ALL CASES IN WHICH THE TIME ALLOWED FOR ANY WORK EXCEEDS ONE MONTH (SAVE FOR SPECIAL JOBS), TO COMPLETE 1/8TH OF THE WHOLE OF THE WORK BEFORE 1/4TH OF THE WHOLE TIME ALLOWED UNDER THE CONTRACT HAS ELAPSED, 3/8TH OF THE WORK BEFORE 1/2 OF SUCH TIME HAS ELAPSED AND 3/4TH OF WORK BEFORE 3/4TH OF SUCH TIME HAS ELAPSED. IF THE CONTRACTOR FAILS TO COMPLETE THE WORK IN ACCORDANCE WITH THIS TIME SCHEDULE IN TERMS OF COST IN MONEY, AND THE DELAY IN EXECUTION OF WORK IS ATTRIBUTABLE TO THE CONTRACTOR, THE CONTRACTOR SHALL BE LIABLE TO PAY COMPENSATION TO THE GOVERNMENT AT EVERY TIME SPAN AS BELOW: -

<u>A.</u>	<u>Time Span of full stipulated period</u>	<u>1/4th</u>	<u>1/2th</u>	<u>3/4th</u>	<u>Full</u>
<u>B.</u>	<u>Work to be</u>	<u>1/8th</u>	<u>3/8th</u>	<u>3/4th</u>	<u>Full</u>

	completed in terms of money	(Rs...)	(Rs...)	(Rs...)	(Rs...)
C.	Compensation payable by the contractor for delay attributable to contractor at the stage of :	Delay up to one fourth period of the prescribed time span – 2.5% of the work remained unexecuted	Delay exceeding one fourth periods but not exceeding half of the prescribed time span – 5% of the work remained unexecuted.	Delay exceeding half of the prescribed but not exceeding three fourth of the time span – 7.5% of the work remained unexecuted	Delay exceeding three fourth of the prescribed time span – 10% of the work remained unexecuted
<p>Note:- In case delayed period over a particular span is split up and is jointly attributable to Government and contractor, the competent authority may reduce the compensation in proportion of delay attributable to Government over entire delayed period over that span after clubbing up the split delays attributable to Government and this reduced compensation would be applicable over the entire delayed period without paying any escalation.</p> <p>Following illustrations is given:- First time span is 6 months, delay is of 30 days which is split over as under:- 5 days (attributable to Government) + 5 days (attributable to contractor) + 5 days (attributable to Government) + 5 days (attributable to contractor) + 5 days (attributable to Government) + 5 days (attributable to contractor) Total delay is thus clubbed to 15 days (attributable to Government) and 15 days (attributable to contractor). The normal compensation of 30 days as per clause 2 of agreement is 2.5% which can be reduced as $2.5 \times 15 / 30 = 1.25\%$ over 30 days without any escalation by competent authority.</p>					

Note : The compensation, levied as above, shall be recoverable from the Running Account Bill to be paid immediately after the concerned time span. Total compensation for delays shall not exceed 10 percent of the total value of the work.

- 2.2 The contractor shall, further, be bound to carry out the work in accordance with the date and quantity entered in the progress statement attached to the tender.
- 2.3 In case the delay in execution of work is attributable to the contractor, the span wise compensation, as laid down in this clause shall be mandatory. However, in case the slow progress in one time span is covered up within original stipulated period, then the amount of such compensation levied earlier shall be refunded. The Price escalation, if any, admissible under clause 45 of Conditions of Contract would be admissible only on such rates and cost of work, as would be admissible if work would have been carried out in that particular time span. The Engineer-in-Charge shall review the progress achieved in every time span, and grant stage wise extension in case of slow progress with compensation, if the delay is attributable to contractor, otherwise without compensation.
- 2.4 However, if for any special job, a time schedule has been submitted by the Contractor before execution of the agreement, and it is entered in agreement as well as same has been accepted by the Engineer-in-charge, the Contractor shall complete the work within the said time schedule. In the event of the Contractor failing to comply with this condition, he shall be liable to pay compensation as prescribed in forgoing paragraph of this clause provided that the entire amount of compensation to be levied under the provisions of this Clause shall not exceed 10% of the value of the contract. While granting extension in time attributable to the Government, reasons shall be recorded for each delay.

Formatted: Indent: Left: 0", Hanging: 0.49", No bullets or numbering

3 RISK & COST CLAUSE

Formatted: Indent: Left: 0",
Hanging: 0.52", Tabs: Not at 0.68"

3.1 The Engineer-in-charge or the Competent Authority defined under rules may, without prejudice to his rights against the Contractor, in respect of any delay or inferior workmanship or otherwise, or any claims for damages in respect of any breaches of the contract and without prejudice to any rights or remedies under any of the provisions of this Contract or otherwise, and whether the date for completion has or has not elapsed, by notice in writing, absolutely determine the Contract in any of the following cases:

- (i) If the Contractor having been given by the Engineer-in-charge, a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in any inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirements of such notice for a period of seven days, thereafter, or if the Contractor shall delay or suspend the execution of the work so that either in the judgment of the Engineer-in-charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion or he has already failed to complete the work by that date,
- (ii) If the Contractor, being a company, shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager, on behalf of a creditor, shall be appointed or if circumstances shall arise, which entitle the court or creditor to appoint a receiver or a manager or which entitle the court to make a winding up order,
- (iii) If the contractor commits breach of any of the terms and conditions of this Contract,
- (iv) If the contractor commits any acts mentioned in, clause 19 thereof.

3.2 When the Contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in charge on behalf of the Governor of Rajasthan shall have powers: -

- (a) To determine or rescind the contract, as aforesaid (of which determination or rescission notice in writing to the Contractor under the hand of the Engineer-in charge shall be conclusive evidence), upon such determination or rescission, the earnest money, full security deposit of the contract shall be liable to be forfeited and shall be absolutely at the disposal of Government.
- (b) To employ labour paid by the Department and to supply materials to carry out the work or any part of the work, debiting the Contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by the Engineer-in-charge shall be final and conclusive against the contractor) and crediting him with the value of the work done in all respects in the same manner and at the same rates, as if it had been carried out by the Contractor under the terms of this Contract. The certificate of the Divisional Officer, as to the value of the work done, shall be final and conclusive evidence against the Contractor provided always that action under the sub-clause shall only be taken after giving notice in writing to the Contractor. Provided also that: if the expenses incurred by the Department are less than the amount payable to the Contractor at his agreement rates, the difference shall not be paid to the Contractor.
- (c) After giving notice to the contractor to measure up the work of the contractor and to take such part thereof, as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess, the certificate in writing of the Engineer-in-charge shall be final and conclusive) shall be borne and paid by the original Contractor and may be deducted from any money due to him by Government under this

contract or on any other account whatsoever, or from his Earnest Money, Security Deposit, Enlistment Security or the proceeds of sales thereof, or a sufficient part thereof, as the case may be. In the event of any one or more of the above courses being adopted by the Engineer-in-charge, the Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of contract. And, in case action is taken under any of provisions aforesaid, the Contractor shall not be entitled to recover or be paid, any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-charge has certified, in writing, the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

4 CONTRACTOR REMAINS LIABLE TO PAY COMPENSATION, IF ACTION NOT TAKEN UNDER CLAUSE 3

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.4"

4.1 In any case in which any of the powers conferred by clause 3 hereof, shall have become exercisable and the same shall have not been exercised, the non-exercise, thereof, shall not constitute waiver of any of the conditions hereof, and such power shall, notwithstanding, be exercisable in the event of any future case of default by the Contractor for which, by any clause or clauses hereof, he is declared liable to pay compensation amounting to the whole of his Security Deposit /Earnest Money/Enlistment security and the liability of the Contractor for past and future compensation shall remain unaffected.

Powers to take possession of, or require removal, sale of Contractor's plant

4.2 In the event of the Engineer-in-Charge putting in force, powers vested in him under the preceding Clause 3 he may, if he so desires, take possession of all or any tools, plants, materials and stores, in or upon the works or the site, thereof or belonging to the contractor or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account, at the contract rates or, in case of these not being applicable, at current market rates, to be certified by or duly authorized Engineer (whose certificate thereof, shall be final and conclusive), otherwise the Engineer-in-Charge may, by notice in writing to the contractor or his clerk of the works, foreman or other authorized agent, require him to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice), and in the event of the contractor failing to comply with any requisition, or other duly authorized Engineer may remove them at the contractor's expenses, sell them by auction or private sale on account of the Contractor and at his risk in all respects, and the certificate of or other duly authorized Engineer, as to the expense of any such removal, and the amount of the proceeds and expense of any such sale shall be final and conclusive against the Contractor.

5 EXTENSION OF TIME

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

5.1 If the contractor shall desire an extension of the time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Engineer-in-Charge within 30 days of the date of the hindrance, on account of which he desires such extension as aforesaid, and the Authority Competent to grant extension under the rules/delegations of power or other duly authorized Engineer shall, if in his opinion, (which shall be final) reasonable grounds be shown therefore, authorize such extension of time, if any, as may, in his opinion, be necessary or proper, if the period of completion of contract expires before the expiry of the period of one month provided in this clause, the application for extension shall be made before

the expiry of the period stipulated for completion of the contract. The competent authority shall grant such extension at each such occasion within a period of 30 days of receipt of application from contractor and shall not wait for finality of work. Such extensions shall be granted in accordance with provisions under clause (2) of this agreement.

5A MONTHLY RETURN OF EXTRA CLAIMS

Formatted: Style Heading 1 + Left: 0" First line: 0", Indent: Left: -0.38"

5A.1 Contractor has to submit a return every month for any work claimed as extra. The Contractor shall deliver the return in the office of the Executive Engineer and obtain Receipt Number of the Receipt Register of the day on or before 10th day of every month during the continuance of the work covered by this contract, a return showing details of any work claimed as extra by the contractor which value shall be based upon the rates and prices mentioned in the contract or in the Schedule of Rates in force in the District for the time being. The contractor shall be deemed to have waived all claims, not included in such return, and will have no right to enforce any such claims not included, whatsoever be the circumstances.

6 FINAL CERTIFICATE

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

6.1 On completion of the work, the contractor shall send a registered notice to the Engineer-in-charge, giving the date of completion and sending a copy of it to the officer accepting the contract, on behalf of the Governor and shall request the Engineer-in-charge to give him a certificate of completion, but no such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed from the site on which the work shall be executed, all scaffolding, surplus materials and rubbish and cleared off the dirt from all wood work, doors, walls, floors, or other parts of any building in, upon or about which the work is to be executed or of which he may have possession for the execution thereof, he had filled up the pits. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and cleaning off dirt and filling of pits on or before the date fixed for completion of the work, the Engineer-in-charge may, at the expense of the contractor, remove such scaffolding, surplus materials, and the rubbish and dispose of the same, as he thinks fit, and clean off such dirt and fill the pits, as aforesaid, and the contractor shall forthwith pay the amount of all expenses, so incurred, and shall have no claim in respect of any such scaffolding or surplus materials, as aforesaid, except for any sum actually realized by the sale thereof. On completion, the work shall be measured by the Engineer-in-charge himself or through his subordinates, whose measurements shall be binding and conclusive against the contractor. Provided that, if subsequent to the taking of measurements by the subordinate, as aforesaid, the Engineer-in-charge had reason to believe that the measurements taken by his subordinates are not correct, the Engineer-in-charge shall have the power to cancel the measurements already taken by his subordinates and acknowledged by the Contractor and to take measurements again, after giving reasonable notice to the Contractor, and such re-measurements shall be binding on the Contractor.

6.2 Within thirty days of the receipt of the notice, Engineer-in-charge shall inspect the work and if there is no visible defect on the face of the work, shall give the Contractor, a certificate of completion. If the Engineer-in-charge finds that the work has been fully completed, it shall be mentioned in the certificate so granted. If, on the other hand, it is found that there are certain visible defects to be removed, the certificate to be granted by Engineer-in-charge shall specifically mention the details

of the visible defects along with the estimate of the cost for removing these defects.

The final certificate of work shall be given after the visible defects pointed out as above have been removed.

7 PAYMENT ON INTERMEDIATE CERTIFICATE TO BE REGARDED AS ADVANCE

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

7.1 No payments shall be made for works estimated to cost less than rupees twenty five thousand, till after the whole of the works shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees twenty five thousand, the Contractor shall on submitting the bill therefore, be entitled to receive a monthly payment proportionate to the part, thereof, then approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of sum, so payable, shall be final and conclusive. Running Account Bill shall be paid within 15 days from presentation. But all such intermediate payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound and imperfect or unskillful work to be removed and taken away and re-constructed or re-erected, or considered as an admission of the due performance of the contract, or any part thereof, in any respect, or the accruing of any claim, nor shall it conclude, determine, or effect in any way the powers of the Engineer-in-charge under these conditions or any of them to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be made/submitted by the Contractor within one month of the date fixed for completion of the work, otherwise the Engineer-in-charge's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on all parties.

2 7A TIME LIMIT FOR PAYMENTS OF FINAL BILLS

Formatted: Style Heading 1 + Left: 0" First line: 0"

7A.1 The final bill shall be paid within 3 months on presentation by the contractor after issuance of final completion certificate in accordance with clause 6 of the conditions of contract. If, there shall be any dispute about any item(s) of the work, then the undisputed item(s) only, shall be paid within the said period of 3 months. If a final bill (which contains no disputed item or disputed amount of any item) is not paid within the period of three months from presentation of final bill or 6 months from the date of receipt of registered notice regarding completion of work in accordance with clause 6 of the conditions of the contract, the defects, if any, shall be brought to the notice of the higher authority. The period of 3 months shall commence from the date of rectification of the defects. The higher authority shall ensure that in no case final bill should be left unpaid after 9 months from the receipt of registered notice regarding completion of work. The contractor shall submit a memorandum of the disputed items along with justification in support within 30 days from the disallowance thereof, and if he fails to do so, his claims shall be deemed to have been fully waived and absolutely extinguished.

8. BILLS TO BE SUBMITTED MONTHLY

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

8.1 A bill shall be submitted by the Contractor each month on or before the date fixed by the Engineer-in-charge for all work executed in the previous month and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the

claim, as far as admissible, authorized or paid, if possible, before the expiry of ten days from the presentation of the bill. If the Contractor does not submit the Bill within the time fixed, as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of

the Contractor, whose signature in the Measurement Book will be sufficient warrant and the Engineer-in-charge may prepare a bill from such Measurement Book, which shall be binding on the contractor in all respects.

8A CONTRACTOR TO BE GIVEN TIME TO FILE OBJECTION TO THE MEASUREMENTS RECORDED BY THE DEPARTMENT

Formatted: Style Heading 1 + Left: 0" First line: 0", Indent: Left: -0.38"

8A.1 Before taking any measurement of any work, as have been referred to in preceding Clauses 6, 7 & 8, the Engineer-in-charge or a subordinate, deputed by him, shall give reasonable notice to the Contractor. If the Contractor fails to be present at the time of taking measurements after such notice or fails to sign or to record the difference within a week from the date of measurement in the manner required by the Engineer-in-charge, then in any such event, the measurements taken by the Engineer-in-charge or by the subordinates deputed by him, as the case may be, shall be final and binding on the Contractor and the Contractor shall have no right to dispute the same.

8B RECOVERY OF COST OF PREPARATION OF THE BILL

8B.1 In case of contractor of class A and AA do not submit the bill within time fixed, the Engineer in Charge may prepare the bill as per the provision of clause 8 of the general conditions of the contract but @ 0.5 % of amount of such a bill shall be made and credited to the general revenue on account of preparation of bill.

9. BILLS TO BE ON PRINTED FORMS

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

9.1 The Contractor shall submit all bills on the printed forms, to be had on application, at the office of the Engineer-in-charge and the charges in the Bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender, at the rates hereinafter provided for such work.

9A PAYMENTS OF CONTRACTOR'S BILLS TO BANKS

9A.1 Payments due to the Contractor may if so desired by him, be made to this Bank instead of direct to him, provided that the contractor has furnished to the Engineer-in-Charge(I)an authorization in the form of a legally valid document, such as a Power of Attorney conferring authority on the Bank to receive payments, and (ii) his own acceptance of the correctness of the account made out, as being due to him, by Government, or his signature on the bill or other claim preferred against

9A.2 Government before settlement by the Engineer-in-Charge of the account or claim, by payment to the Bank. While the receipt given by such bank shall constitute a full and sufficient discharge for the payment, the Contractor should, whenever possible, present his bill duly receipted and discharged through his Banker. Nothing, herein contained, shall operate to create in favour of the Bank any rights vis-a-vis the Governor.

10. STORES SUPPLIED BY GOVERNMENT

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

10.1 If the specification or estimate of the work provides for the use of any special description of material, to be supplied from Engineer-in-charge's stores, or if, it is required that contractor shall use certain stores to be provided by the Engineer-in-charge, specified in the schedule or memorandum hereto annexed, the contractor shall be bound to procure and shall be supplied such materials and stores as are, from time to time, required to be used by him for the purpose of the Contract only, and the value of the full quantity of materials and stores, so supplied, at the rates specified in the said schedule or memorandum, may be set off or which may be deducted from any sum, then due or thereafter become due, to the Contractor under the Contract or otherwise or against or from the Security Deposit or the proceeds of sale, if the same is held in Government securities, the same or sufficient portion thereof being in this case, sold for this purpose. All materials supplied to the contractor, either from Departmental stores or with the assistance of Government, shall remain the absolute property of Government. The Contractor shall be trustee of the Stores/ Materials, so supplied/ procured, and these shall not, on any account, be removed from the site of work and shall be, all times, open to inspection by the Engineer-in Charge. Any such material, unused and in perfectly good condition at the time of completion or determination or rescinding of the contract, shall be returned to the Divisional officer's Stores, if, by a notice in writing under his hand, he shall so require, and if on service of such notice, the contractor fails to return the materials, so required, he shall be liable to pay the price of such materials in accordance with provision of clause 10 B ibid. But the contractor shall not be entitled to return any such materials, unless with such consent, and shall have no claim for compensation on account of any such materials, so supplied to him as aforesaid being unused by him, or for any wastage in or damage to any such materials. For the stores returned by the contractor, he shall be paid for, at the price originally charged excluding storage charges, in case of materials supplied from departmental stores and actual cost including freight, cartage, taxes etc., paid by the Contractor, in case of supplies received with the assistance of Government, which, however, should in no case exceed market rate prevailing at the time the materials are taken back. The decision of the Engineer-in-charge, as to the price of the stores returned, keeping in view its condition etc., shall be final and conclusive. In the event of breach of the aforesaid condition, the Contractor shall, in addition to throwing himself open to account for contravention of the terms of the license or permit and/or for criminal breach of trust, pay to the Government, all advantages or profits resulting, or which in the usual course, would result to him by reason of such breach. Provided that the Contractor shall, in no case be entitled to any compensation or damage on account of any delay in supply, or non-supply thereof, all or any such materials and stores.

10A REJECTION OF MATERIALS PROCURED BY THE CONTRACTOR

10A.1 The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion, are not in accordance with the specifications and, in case of default, the Engineer-in-Charge shall be at liberty to employ other person(s) to remove the same without being answerable or accountable for any loss of damage, that may happen or arise to such materials to be substituted thereof, and in case of default, Engineer-in-Charge may cause the same to be supplied and all costs, which may attend such removal and substitution, are to be born by the Contractor.

10B PENAL RATE IN CASE OF EXCESS CONSUMPTION

10B.1 The Contractor shall also be charged for the materials consumed in excess of the requirements calculated on the basis of standard consumption approved by the department, at double of the issue rate including storage and supervision charges or market rate, whichever is higher. A Material Supply and Consumption Statement, in prescribed Form RPWA 35A shall be submitted with every Running Account Bill, distinguishing material

supplied by the Government and material procured by the Contractor himself. The recovery for such material shall be made from Running Account Bill next after the consumption and shall not be deferred. Certificate of such nature shall be given in each Running Account Bill.

10C HIRE OF PLANT AND MACHINERY

10C.1 Special Plant and Machinery, required for execution of the work, may be issued to the Contractor, if available, on the rates of hire charges and other terms and conditions as per departmental Rules, as per Schedule annexed to these conditions. Rates of such Plant & Machinery shall be got revised periodically so as to bring them at par with market rate.

11. WORKS TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ORDERS ETC.

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

11.1 The Contractor shall execute the whole and every part of the work in the most substantial and satisfactory manner and both as regards materials and otherwise in every respect, in strict accordance with the Specifications. The Contractor shall also conform exactly fully and faithfully to the designs, drawings (either designed by department or designed by contractor and approved by Engineer-in-charge during additional execution) and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the Contractor shall be entitled to have access at such office or on the site of the work for the purpose of inspection during office hours and the Contractor shall, if he so require, be entitled, at his own expense, to make or cause to be made copies of specifications and of all such designs, drawings and instructions, as aforesaid. A certificate of executing works as per approved design, specifications etc. shall be given on each Running Account Bill.

11.2 The specifications of work, material, and methodology of execution, drawings and designs shall be signed by the Contractor and Engineer-in-charge while executing agreement and shall form part of agreement.

12. ALTERATIONS, OMISSIONS AND ADDITIONS IN WORK

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

12.1 The Engineer-in-charge shall have power to make any alterations, omissions or additions to or substitutions for the original specifications, drawings, designs and instructions, that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-charge and such alterations, omission, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work, which the contractor may be directed to do in the manner above specified as part of the work, shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work, and the certificate of the Engineer-in-charge shall be conclusive as to such proportion. The rates for such additional, altered or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order:

- (i) If the rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract for the work.
- (ii) If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, such rates will be

derived from the rates for a similar class of work as are specified in the contract for the work.

- (iii) If the rates for the altered, additional or substituted work can not be determined in the manner specified in the sub-clauses (i) to (ii) above, then the rates for such composite work item shall be worked out on the basis of the PWD Schedule of Rates of the District/area specified above minus/plus the percentage which the total tendered amount bears to the estimated cost of the entire work put to tender. Provided always that if the rate for a particular part or parts of the item is not in the Schedule of Rates, the rate for such part or parts will be determined by the Engineer-in-Charge on the basis of the prevailing market rates when the work was done.
- (iv) If the rates for the altered, additional or substituted work item can not be determined in the manner specified in sub-clauses (i) to (iii) above, then the contractor shall within 7 days of the date of receipt of order to carry out the work, inform the Engineer- in – Charge of the rate which it is his intention to charge for such class of work supported by analysis of the rate or rates claimed and the Engineer-in-Charge shall determine the rate or rates on the basis of prevailing market rates, and pay the contractor accordingly. However, the Engineer-in-Charge, by notice in writing, will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates on items falling under the clause.
- (v) Except in case of items relating to foundations, provisions contained in sub-clauses(i) to (iv) above shall not apply to contract or substituted items as individually exceed the percentage set out in the tender documents under clause 12.A.

For the purpose of operation of clause 12 (v) the following works shall be treated as work relating to foundations:-

- (a) For buildings, compound wall plinth level or 1.2 meters (4 ft.) above ground level whichever is lower, excluding items above flooring and D.P.C. but including base concrete below the floors.
- (b) For abutments, piers, retaining wall of culverts and bridges, walls of water reservoir and the bed of floor level.
- (c) For retaining walls, where floor levels is not determinate 1.2 metres above the average ground level or bed level.
- (d) For roads, all items of excavation and filling including treatment of sub base and soling work.
- (e) For water supply lines, sewer lines under ground storm water drains and similar work, all items of work below ground level except items of pipe work for proper masonry work.
- (f) For open storm water drains, all items of work except lining of drains.
- (g) Any other items of similar nature which Engineer-in-Charge may decide relating to foundation.

The rate of any such work, except the items relating to foundations, which is in excess of the deviation limit, shall be determined in accordance with the provisions contained in Clause 12A.

12A

12A.1 the quantum of additional work for each item shall not exceed 50% of the original quantity given in the agreement and the total value of additional work shall not exceed 20% of the total contract value, unless otherwise mutually agreed by the Engineer-in-charge and the Contractor. This limit shall not be applicable on items relating to foundation work, which shall be executed as per original rates or provision of clause 12 (i) to (iv).

12A.2 In case of contract substituted items or additional items, which results in exceeding the deviation limit laid down in this clause except items relating to foundation work, which the contractor is required to do under clause 12 above, the contractor shall within 7 days from the receipt of order, claim revision of the rate supported by proper analysis in respect of such items for quantities in excess of the deviation limit notwithstanding the fact that the rates for such items exist in the tender for the main work or can be derived in accordance with the provision of sub clause (ii) of clause 12 and the Engineer-in-Charge, may revise their rates having regard to the prevailing market rates and the contractor shall be paid in accordance with the rates so fixed. The Engineer-in-Charge shall, however, be at liberty to cancel his order to carry out such increased quantities of work by giving notice in writing to the contractor and arrange to carry it out in such manner, as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates of items failing under this Clause.

12A.3 All the provisions of the preceding paragraph shall equally apply to the decrease in rates of items for quantities in excess of the deviation limit notwithstanding the fact that the rates for such items exist in the tender for the main work or can be derived in accordance with the provisions of sub-clause(ii) of the preceding clause 12 and the Engineer-in-Charge may revise such rates having regard to the prevailing market rates unless otherwise mutually agreed by the Engineer-in-Charge and the Contractor..

13 NO COMPENSATION FOR ALTERATION IN OR RESTRICTION OF WORK TO BE CARRIED OUT.

13.1 If, at any time after the commencement of the work the Government shall, for any reason, whatsoever, not require the whole work, thereof, as specified in the tender, to be carried out, the Engineer-in-charge shall give notice, in writing, of the fact to the Contractor, who shall have no claim to any payments or compensation, whatsoever, on account of any profit or advantage, which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out. Neither, shall he have any claim for compensation by reason of alterations having been made in the original specifications, drawings, and design, and instructions, which shall involve any curtailment of the work, as originally contemplated. Provided, that the Contractor shall be paid the charges for the cartage only, of materials actually brought to the site of the work by him for bona-fide use and rendered surplus as a result of the abandonment or curtailment of the work or any portion thereof, and taken them back by the Contractor, provided however, that the Engineer-in-charge shall have, in all such cases, the option of taking over all or any such materials at their

Formatted: Indent: Left: 0",
Hanging: 0.52", Tabs: Not at 0.68"

purchase price or at local market rates whichever may be less. In the case of such stores, having been issued from Government Stores, charges recovered, including storage charges, shall be refunded after taking into consideration any deduction for claim on account of any deterioration or damage while in the custody of the contractor, and in this respect the decision of the Engineer-in-charge shall be final.

14 ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK

Formatted: Indent: Left: 0",
Hanging: 0.52", Tabs: Not at 0.68"

14.1 If, it shall appear to or any authorized authority or the Engineer-in-charge or his subordinates in-charge of the work, or to the committee of the retired officers/officers appointed by the State Government for the purpose that any work has been executed with unsound, imperfect or unskillful workmanship, or with material of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted, or otherwise not in accordance with contract, the Contractor shall on demand in writing from the Engineer-in-charge, specifying the work/materials or articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, will rectify or remove and reconstruct the work, so specified, in whole or in part, as the case may be, remove the materials or articles, so specified, and provide other proper and suitable materials or articles at his own cost, and in the event of his failing to do so, within a period to be specified by the Engineer-in- Charge in his demand as aforesaid, then the Contractor shall be liable to pay compensation at the rate of one percent, on the tendered amount of work for every week not exceeding ten percent, while his failure to do so shall continue, and in the case of any such failure, the Engineer-in-Charge may rectify or remove and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be, at the risk and expense, in all respects of the contractor.

15 WORK TO BE OPEN TO INSPECTION: CONTRACTOR OR HIS RESPONSIBLE AGENT TO BE PRESENT

Formatted: Indent: Left: 0",
Hanging: 0.52", Tabs: Not at 0.68"

15.1 All work, under or in course of execution or executed in pursuance of the contract shall, at all times, be opened to inspection and supervision of the Engineer-in-charge and his superior officers e.g. Superintending Engineer, Additional Chief Engineer, Chief Technical Engineer, Chief Engineer, and his subordinates and any other authorized agency of the Government and the contractor shall, at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his subordinate and any other authorized agency of Government or committee of retired officers/officers appointed by the State Government for the purpose to visit the works shall have been given to the Contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for the purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the Contractor himself.

16. NOTICE TO BE GIVEN BEFORE ANY WORK IS COVERED UP

Formatted: Indent: Left: 0",
Hanging: 0.52", Tabs: Not at 0.68"

16.1 The Contractor shall give not less than 7 days notice, in writing, to the Engineer-in-charge or his subordinate-in-Charge of the work, before covering up or otherwise placing beyond the reach of measurement, any work in order that the same may be measured, and correct dimensions there of, be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement any work without the consent in writing of the Engineer-in- Charge of the work, and if, any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall be uncovered at the Contractor's expense or in default, there of, no payment or allowance shall be made for such work, or for the materials with which the same was executed.

17 CONTRACTOR LIABLE FOR DAMAGE DONE AND FOR IMPERFECTIONS

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

17.1 If the Contractor or his work people or servants shall break, deface, injure or destroy any part of a building, in which they may be working or any building, road, fence, enclosure, or cultivated ground contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work, while in progress, from any cause, whatsoever, or any imperfections become apparent in it, within a period specified in clause 37, after a certificate, final or otherwise of its completion, shall have been given by the Engineer-in-charge, may cause the same to be made good by other workmen and deduct the expense (of which the certificate of the Engineer-in-charge shall be final) from any sums that may be then, or at any time thereafter, may become due to the Contractor, or from his security deposit, or the proceeds of sale thereof, or of a sufficient portion thereof.

18 CONTRACTOR TO SUPPLY PLANT, LADDERS, SCAFFOLDING ETC.

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

18.1 The Contractor shall arrange and supply, at his own cost, all material (except such special materials, if any, as may, in accordance with the contract, be supplied from the Engineer-in-charge's stores), plants, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works requisite or proper for the proper execution of the work, whether original, altered, or substituted, and whether included in the specification or other documents, forming part of the Contract, or referred to in these conditions, or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer in- Charge, as to any matter as to which, under these conditions, he is entitled to be satisfied or which he is entitled to require, together with carriage thereof, to and from the work. The Contractor shall also arrange and supply, without charge, the requisite number of persons with the means and materials, necessary for the purpose of setting out work and counting, weighting and assisting in the measurement or examination at any time and from time to time of the work, or materials. Failing his so doing, the same may be provided by the Engineer-in-charge, at the expense of the Contractor, and the expenses may be deducted from any money due to the Contractor under the Contract, or from his Security Deposit or the proceeds of sale thereof, or a sufficient portion thereof. The Contractor shall also provide all necessary fencing and lights required to protect the public from accident and shall be bound to bear the expenses of defense of every suit, action or other proceeding at law, that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and costs which may be awarded in any such suit, action proceeding to any such person or which may, with the consent of the Contractor, be paid to compromise any claim by any such person.

19. WORK NOT TO BE SUB-LET, CONTRACT MAY BE RESCINDED AND SECURITY DEPOSIT AND PERFORMANCE FORFEITED FOR SUB-LETTING

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

19.1 The Contractor shall not be assigned or sublet without the written approval of the Chief Engineer, and if the contractor shall assign or sublet his contract or attempt so to do, or become insolvent, or commence any insolvency proceedings or mark any composition with his creditors, or attempt so to do, or if any bribe, gratuity, gift, loan, requisite reward or advantage, pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the Contractor or any of his servants or

agents to any public officer or person, in the employ of Government, in any way, relating to his office or employment, or if, any such officer or person shall become, in any way, directly or indirectly, interested in the contract, may, thereupon, by notice, in writing, rescind the contract and Security Deposit of the Contractor shall, thereupon, stand forfeited and be absolutely at the disposal of Government and the same consequences shall ensure as, if the contract had been rescinded under Clause 3 hereof, and in addition the Contractor shall not be entitled to recover or be paid for any work therefore, actually performed under the Contract.

20 SUMS PAYABLE BY WAY OF COMPENSATION TO BE CONSIDERED AS REASONABLE COMPENSATION WITHOUT REFERENCE TO ACTUAL LOSS

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

20.1 All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

21 CHANGES IN CONSTITUTION OF FIRM

Formatted: Heading 1,Heading 1 Char Char Char Char, Space After: 0 pt

21.1 WHERE THE CONTRACTOR IS A PARTNERSHIP FIRM, THE PREVIOUS APPROVAL, IN WRITING, OF THE ENGINEER-IN-CHARGE SHALL BE OBTAINED BEFORE ANY CHANGE IS MADE IN THE CONSTITUTION OF THE FIRM. WHERE THE CONTRACTOR IS AN INDIVIDUAL OR A HINDU UNDIVIDED FAMILY BUSINESS CONCERN, SUCH APPROVAL, AS AFORESAID, SHALL LIKEWISE BE OBTAINED BEFORE THE CONTRACTOR ENTERS INTO ANY PARTNERSHIP AGREEMENT THERE UNDER THE PARTNERSHIP FIRM WOULD HAVE THE RIGHT TO CARRY OUT THE WORK THEREBY UNDERTAKEN BY THE CONTRACTOR. IF, PREVIOUS APPROVAL, AS AFORESAID, IS NOT OBTAINED, THE CONTRACT SHALL BE DEEMED TO HAVE BEEN ASSIGNED IN CONTRAVENTION OF CLAUSE 19 HEREOF, AND THE SAME ACTION MAY BE TAKEN, AND THE SAME CONSEQUENCES SHALL ENSURE, AS PROVIDED IN THE SAID CLAUSE 19.

22. WORK TO BE UNDER DIRECTION OF ENGINEER-IN-CHARGE

22.1 ALL THE WORKS, TO BE EXECUTED UNDER THE CONTRACT, SHALL BE EXECUTED UNDER THE DIRECTION AND SUBJECT TO THE APPROVAL, IN ALL RESPECT, OF THE ENGINEER-IN-CHARGE OF THE GOVERNMENT OF RAJASTHAN FOR THE TIME BEING, WHO SHALL BE ENTITLED TO DIRECT, AT WHAT POINT OR POINTS, AND IN WHAT MANNER, THEY ARE TO BE COMMENCED, AND FROM TIME TO TIME, CARRIED ON.

23 STANDING COMMITTEE FOR SETTLEMENT OF DISPUTES

23.1 IF ANY QUESTION, DIFFERENCE OR OBJECTION, WHATSOEVER SHALL ARISE IN ANY WAY, IN CONNECTION WITH OR ARISING OUT OF THIS INSTRUMENT, OR THE MEANING OF OPERATION OF ANY PART THEREOF, OR THE RIGHTS, DUTIES OR LIABILITIES OF EITHER PARTY THEN, SAVE IN SO FAR, AS THE DECISION OF ANY SUCH MATTER, AS HEREIN BEFORE PROVIDED FOR, AND BEEN SO DECIDED, EVERY SUCH MATTER CONSTITUTING A TOTAL CLAIM OF RS. 50,000/- OR ABOVE, WHETHER ITS DECISION HAS BEEN OTHERWISE PROVIDED FOR AND WHETHER IT HAS BEEN FINALLY DECIDED ACCORDINGLY, OR WHETHER THE CONTRACT SHOULD BE TERMINATED OR HAS BEEN RIGHTLY TERMINATED, AND AS

REGARDS THE RIGHTS OR OBLIGATIONS OF THE PARTIES, AS THE RESULT OF SUCH TERMINATION, SHALL BE REFERRED FOR DECISION TO THE EMPOWERED STANDING COMMITTEE, WHICH WOULD CONSIST OF THE FOLLOWINGS:-

- (i) Administrative Secretary concerned.
- (ii) Finance Secretary or his nominee, not below the rank of Deputy Secretary.
- (iii) Law Secretary or his nominee, not below the rank of Joint Legal Remembrancer
- (iv) ED & CEO RUIFDCO or his nominee not below the rank of chief Engineer (Working / retired).
- (v) Chief Engineer concerned (Member-Secretary).

23.2 The Engineer-in-charge, on receipt of application along with non-refundable prescribed fee, (the fee would be two percent of the amount in dispute, not exceeding Rs. one Lac) from the Contractor, shall refer the disputes to the committee, within a period of one month from the date of receipt of application.

23.3 Procedure and Application for referring cases for settlement by the Standing Committee shall be, as given in Form RPWA 90.

23A CONTRACTOR TO INDEMNIFY FOR INFRINGEMENT OF PATENT OR DESIGN

23A.1 Contractor shall fully indemnify the Governor of Rajasthan against any action, claim or proceeding, relating to infringement or use of any patent or design, or any alleged patent or design, rights, and shall pay any royalties, which may be payable in respect of any article or part thereof, included in the contract, in the event of any claims made under or action brought against Government. In respect of any such matters, as aforesaid, the Contractor shall be, immediately, noticed thereof, and the Contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation, that may arise there from provided that the Contractor shall not be liable to indemnify the Governor of Rajasthan, if the infringement of the patent or design or any alleged patent or design, right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

Formatted: Indent: Left: 0", Hanging: 0.52"

24. IMPORTED STORE ARTICLES TO BE OBTAINED FROM GOVERNMENT

24.1 The contractor shall obtain from the stores of the Engineer-in-charge, all imported store articles which may be required for the work or any part thereof, or in making up articles required thereof, or in connection therewith, unless he has obtained permission, in writing, from the Engineer-in-charge, to obtain such stores and articles from else-where. The value of such stores and articles, as may be supplied to the Contractor by the Engineer-in-charge, will be debited to the Contractor, in his account, at the rates shown in the schedule attached to the contract, and if they are not entered in the schedule, they will be debited at cost price, which for the purposes of this contract, shall include the cost of carriage and all other expenses, whatsoever, which shall have been incurred in obtaining delivery of the same at the stores aforesaid plus storage charges.

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

25. LUMP-SUMS IN ESTIMATES

25.1 When the estimate, on which a tender is made includes lump sums, in respect of parts of the work, the Contractor shall be entitled to payment in respect of the item of work

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

involved, or the part of the work in question at the same rates, as are payable under the contract for such items or if the part of the work in question is not, in the opinion of the Engineer-in-charge, capable of measurement, the Engineer-in-charge may at his discretion pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer-in-charge shall be final and conclusive with regard to any sum or sums payable to him under the provisions of this clause.

26 ACTION WHERE NO SPECIFICATION

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

26.1 In case of any Class of work for which there is no such specification as is mentioned in the contract document referred in ITB Clause 4.1, such work shall be carried out in accordance with the detailed specification of the department public/ standard specification of RUIDP and also in accordance with the instructions and requirement of the Engineer-in-charge.

27 DEFINITION OF WORK

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

27.1 The expression "works" or "work" where used in these conditions, shall, unless there be some thing either in subject or context, repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed, whether temporary or permanent, and whether original, altered, substituted or additional.

27A DEFINITION OF ENGINEER-IN-CHARGE

27A.1 The term "Engineer-in-charge" means the Divisional officer/Divisional Officer who shall supervise and be in charge of the work and who shall sign the contract on behalf of the Governor.

28 DELAY IN START OF WORK

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

28.1 It cannot be guaranteed that the work will be started immediately after the tenders have been received. No claims for increase of rate will be entertained, if the orders for starting work are delayed.

29. PAYMENTS AT REDUCED RATES ON ACCOUNT OF ITEMS OF WORK NOT ACCEPTED AND NOT COMPLETED TO BE AT THE DISCRETION OF THE ENGINEER-IN-CHARGE

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

29.1 The rates for several items of works, estimated to cost more than Rs. 1,000/-, agreed within, will be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases, where the items of work are not accepted, as so completed, the Engineer-in-charge may make payment on account of such items, at such reduced rates, as he may considers reasonable, in the preparation of final or on account bills, and his decision in the matter shall be final and binding.

29A PAYMENTS AT PART RATES

29A.1 The rates for several items of works may be paid at part rates provisionally in running bills in proportion to the quantum of items executed at the discretion of Engineer-in-charge. In case of item rates, if the rate quoted for certain items are very high in comparison to the average/overall tendered premium, and then the payment at running stages shall not be made more than the average sanctioned premium. The deferred payment, will however be released after successful completion of the work.

30 CONTRACTOR'S PERCENTAGE, WHETHER APPLIED TO NET OR GROSS AMOUNT OF BILLS

Formatted: Indent: Left: 0", Hanging: 0.52", Tabs: Not at 0.68"

30.1 The percentage referred to in the "Tender for works" will be deducted / added from / to the gross amount of the bill before deducting the value of any stock issued.

31 CONTRACTOR TO ADHERE TO LABOUR LAWS/REGULATION

31.1 The Contractor shall adhere to the requirements of the Workmen's Compensation Act and Labour Legislation in force from time to time and be responsible for and shall pay any compensation to his workmen which would be payable for injuries under the Workmen's Compensation Act, here-in-after called the said Act. If such compensation is paid by the State as Principal employer under Sub Section (1) of section 12 of the said Act, on behalf of the Contractor, it shall be recoverable by the State from the Contractor under Sub Section (2) of the said section. Such compensation shall be recovered in the manner laid down in clause 1 of the Conditions of Contract.

32 WITHDRAWAL OF WORK FROM THE CONTRACTOR

32.1 If the Engineer-in-charge shall at any time and for any reasons, whatever, including inability to maintain prorate progress, think any portion of the work should not be executed or should be withdrawn from the Contractor, he may, by notice in writing to that effect, require the Contractor not to execute the portion of the work specified in the notice, or may withdraw from the Contractor the portion of work, so specified, and the Contractor shall not be entitled to any compensation, by reason of such portion of work having been withdrawn from him. The Engineer-in-charge may supplement the work by engaging another agency to execute such portion of the work at the cost of the original contractor, without prejudice to his rights under clause 2. He shall also be competent to levy compensation for delay in progress. The recovery of excess cost shall be made from next available running bill or any other claim and shall not be deferred.

33 CLEARANCE, LEVELING AND DRESSING

33.1 The Contract includes clearance, leveling and dressing of the site within a distance of 15 meters of the building on all sides except where the building adjoins another building.

34 PROTECT WORKS

34.1 The Contractor shall arrange to protect, at his own cost, in an adequate manner, all cut stone work and other work, requiring protection and to maintain such protection, as long as work is in progress. He shall remove and replace this protection, as required by the Engineer-in-Charge, from time to time. Any damage to the work, so protected, no matter how it may be caused, shall be made good by the Contractor free of cost.

34.2 All templates, forms, moulds, centering, false works and models, which in the opinion of the Engineer-in-Charge, are necessary for the proper and workman like execution of the work, shall be provided by the Contractor free of cost.

35 CONTRACTOR LIABLE FOR SETTLEMENT OF CLAIMS CAUSED BY HIS DELAYS

35.1 If the progress of the work has fallen so much in arrears as to prevent other contractors on the work, from carrying out their part of the work within the stipulated time, he will be liable for the settlement of any claim, put in by any of these contractors for the expenses of keeping their labour unemployed, to the extent considered reasonable by the Engineer-in-Charge.

36. FEES, ROYALTIES, DUTIES, ROYALTIES, TAXES, WATER AND POWER CONNECTIONS

36A

36A.1 The liability, if any, on account of quarry fees, royalties, Octroi and any other taxes and duties in respect of materials actually consumed on public work, shall be borne by the Contractor.

36B 6

36B.1 The cost of all water connections, necessary for the execution of work, and the cost of water consumed and hire charges of meters and the cost of electricity consumed in connection with the execution of work, shall be paid by the Contractor, except where otherwise specifically indicated.

36C 36CPAYMENT OF SALES TAX, AND ANY OTHER TAXES

36C.1 Royalty or other tax on materials, issued in the process of fulfilling contract, payable to the Government under rules in force, will be paid by the Contractor himself.

36D

36D.1 In respect of goods and materials procured by the Contractor, for use in works under the contract, sales tax will be paid by the Contractor himself. But in respect of all such goods manufactured and supplied by the Contractor and works executed under the contract, the responsibility of payment of sales tax would be that of the Engineer-in-charge.

37 REFUND OF SECURITY DEPOSIT

37.1 The Security Deposit will be refunded after the expiry of the period, as prescribed below: -

- (a) In case of contracts relating to hiring of trucks and other T&P, transportation including loading, unloading of materials, the amount of Security Deposit is refundable along with the final bill.
- (b) Supplies of material: As per provisions of G.F. & A.R.
- (c) Ordinary repairs: 3 months after completion of the work provided the final bill has been paid.
- (d) Original works/special repairs/renewal works: Five year after issue of completion of work from Executive Engineer provided the final bill has been paid, S.D. will refund in following five part :

<u>From date of completion after 1st year</u>	<u>-</u>	<u>10.0% of deducted amount.</u>
<u>From date of completion after 2nd year</u>	<u>-</u>	<u>10.0% of deducted amount.</u>

From date of completion after IIIrd year	-	10.0% of deducted amount.
From date of completion after IVth year	-	10.0% of deducted amount.
From date of completion after Vth year	-	60.0% of deducted amount.

38 FAIR WAGE CLAUSE

(a) The Contractor shall pay not less than fair wages/minimum wages to labour engaged by him on the work as revised from time to time by the Government, but the Government shall not be liable to pay any thing extra for it except as stipulated in price escalation clause (clause 45) of the agreement.

Explanation: "Fair Wage" means minimum wages for time or piece work, fixed or revised, by the State Government under Minimum Wages Act, 1948.

(b) The Contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wages to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work as if the labour have been immediately or directly employed by him.

(c) In respect of all labour immediately or directly employed on the work, for the purpose of the Contractor's part of this agreement, the Contractor shall comply with or cause to be complied with the Public Works Department Contract's Labour Regulations made, or that may be made by the Government, from time to time, in regard to payment of wages, wages period, deductions from wages, recovery of wages not paid, and unauthorized deductions, maintenance of wages register, wage card, publication or scale of wages and other terms of employment, inspection and submission of periodical returns and other matters of a like nature.

(d) The Engineer-in-charge shall have right to deduct from the money due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers, by reasons of non-fulfillment of the conditions of the contract, for the benefit of the worker or workers, non-payment of wages or of deductions made there from, which are not justified by the terms of the contract, or as a result of non-observance of the aforesaid regulations.

(e) Vis-à-Vis the Government of Rajasthan, the Contractor shall be primarily liable for all payments to be made and for the observance of the regulations aforesaid, without prejudice to his right to claim indemnity from his sub-contractors.

(f) The regulations, aforesaid, shall be deemed to be part of this contract and any breach, thereof, shall be deemed to be breach of the Contract.

39 CONTRACTOR TO ENGAGE TECHNICAL STAFF

39.1 THE CONTRACTOR SHALL ENGAGE THE TECHNICAL STAFF, AS FOLLOWS, ON THE CONTRACT WORKS:

(a) For works costing Rs. 100 Lac and above – One Graduate Engineer

(b) For works costing between Rs. 50 Lac to Rs. 100 Lac - One qualified diploma holder having experience of not less than 3 years.

(c) For works costing between Rs. 15 Lac and Rs. 50 Lac - One qualified diploma holder

Formatted: Heading 1,Heading 1
Char Char Char Char, Space After: 0
pt

39.2 The technical staff should be available at site, whenever required by Engineer-in-charge to take instructions.

39A

39A.1 The Contractor shall comply with the provisions of the Apprenticeship Act, 1961, and the Rules and Orders issued, there under, from time to time. If he fails to do so, his failure will be a breach of contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

40 SAFETY CODE

40.1 The Contractor shall follow the safety code (s) of the department and as specified in special conditions of contract.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

41 NEAR RELATIVES BARRED FROM TENDERING

41.1 The Contractor shall not be permitted to tender for works in Circle, in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Superintending Engineer and Assistant Engineer (both inclusive). He shall also intimate the names of persons, who are working with him in any capacity, or are subsequently employed by him and who are near relatives to any gazetted officer in the Organization/Department. Any breach of this condition by the Contractor would render him liable to be removed from the approved list of contractors of the Department. If such facts is noticed (a) before sanction of tender, his offer shall be declared invalid and earnest money shall be forfeited, (b) after sanction of the tender then the tender sanctioning authority may at his discretion forfeit his earnest money, security deposit and enlistment deposit and work/remaining work may allot to any registered contractor on the same rates as per rules.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

Note: By the term "near relative" is meant wife, husband, parents, and grandparents, children and grand children, brothers and sisters, uncles and cousins and their corresponding in-laws.

42 RETIRED GAZETTED OFFICERS BARRED FOR 2 YEARS

42.1 No Engineer of Gazetted rank or other Gazetted officer, employed in Engineering or Administrative duties in an Engineering Department of the Government of Rajasthan, is allowed to work as a Contractor for a period of 2 years of his retirement from Government service without the previous permission of Government of Rajasthan. This contract is liable to be cancelled, if either the Contractor or any of his employees is found, at any time, to be such a person, who had not obtained the permission of Government, as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

43 QUALITY CONTROL

43.1 The Government shall have right to exercise proper Quality Control measures. The Contractor shall provide all assistance to conduct such tests.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

43 A

43A.1 The work (whether fully constructed or not) and all materials, machines, tools and plant, scaffolding, temporary buildings and other things connected therewith, shall be at the risk of the contractor until the work has been delivered to the Engineer-in-charge, and a certificate from him, to the effect, obtained.

44 DEATH OF CONTRACTOR

44.1 Without prejudice to any of the rights or remedies under the contract, if the Contractor dies, the legal heirs of the Contractor or the Chief Engineer or duly authorized Engineer shall have the option of terminating the contract without any compensation.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

(A) Labour :

Formatted: Bullets and Numbering

$$V_L = (0.75 * P_L / 100 * (I_{L1} - I_{L0}) / I_{L0}) * R$$

V_L = Increase or decrease in the cost of work during the quarter under consideration due to change in rates for labour.

Formatted: Font: Not Bold

Formatted: Indent: Hanging: 0.48", Line spacing: 1.5 lines

R = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in this clause.

I_{L0} = The average consumer price index for industrial workers (whole-sale prices) for the quarter in which tenders were opened/negotiated (as published in Reserve Bank of India Journal / labour Bureau Simla, for the area).

Formatted: Font: Not Bold

I_{L1} = The average consumer price index for industrial workers (whole-sale prices) for the quarter of calendar year under consideration (as published in reserve Bank of India Journal / labour Bureau Simla, for the area)

Formatted: Font: Not Bold

P_L = Percentage of labour components.

Formatted: Font: 8 pt

Formatted: Font: Not Bold

Note : In case of revision of minimum wages by the Department or other competent authority, nothing extra would be payable except the price escalation permissible under this clause.

Formatted: Indent: Hanging: 0.48"

(B) Material (excluding material supplied by the department)

$$V_M = (0.75 * P_M / 100 * (I_{M1} - I_{M0}) / V_M) * R$$

V_M = Increase or decrease in the cost of during the quarter under consideration due to change in rates of material.

Formatted: Font: Not Bold

R = the value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in this clause.

I_{M0} = The average wholesale price index (all commodities) for the quarter in which tender was opened / negotiated (as published in Reserve Bank of India Journal / Labour Bureau Simla for the area)

Formatted: Font: Not Bold

Formatted: Font: Not Bold

I_{M1} = The average wholesale price index (all commodities) for the quarter under consideration (as published in Reserve Bank of India Journal / Labour Bureau Simla, for the area).

Formatted: Font: Not Bold

P_M = Percentage of material component (excluding materials supplied by the Department).

(C) Bitumen :

$$V_b = (0.75 * P_b / 100 * (B_1 - B_0) / B_0) * R$$

V_b = Increase or decrease in the cost of during the quarter under consideration due to change in rates of bitumen.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in this clause.

B_0 = The wholesale price for bitumen on the day of opening of tenders/negotiation, as published by the Economic Adviser to Govt. of India, Ministry of Industry.

B_1 = The average wholesale price index for bitumen for the quarter under consideration (as published by the Economic Adviser to Govt. of India, Ministry of Industry).

P_b = Percentage of bitumen component excluding supplied by the Department (Specified in the sanctioned estimate of the work).

Formatted: Font: Not Bold

(D) Petroleum :

$$V_f = (0.75 * P_f / 100 * (F_1 - F_0) / F_0) * R$$

Formatted: Font: 3 pt

V_f = Increase or decrease in the cost of work during the quarter under consideration due to change in the rates for fuel and lubricants.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of materials supplied by the department and excluding other items as mentioned in this clause.

F_0 = The average wholesale price index of H.S.D. for the quarter under consideration as published weekly by the Economic adviser to Govt. of India, Ministry of Industry for the quarter under consideration.

P₁ = Percentage of fuel and lubricants component excluding fuel and lubricants supplied by the Department (Specified in the sanctioned estimate for the work).

R = Total work done during the quarter as prescribed under this clause.

Note : For application of this clause price of HSD is chosen to indicate fuel and lubricant component.

(E) Cement :

$$V_c = (0.75 * P_c / 100 * (I_{C1} - I_{C0}) / I_{C0}) * R$$

V_c = Increase or decrease in the cost of work during the quarter under consideration due to change in the rates for cement.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of cement supplied by the department and excluding other items as mentioned in this clause.

I_{C0} = The average wholesale price index for the quarter in which tenders were opened / negotiated (as published by the Economic advisor to govt. of India, Ministry of Industries).

I_{C1} = The average wholesale price index for the quarter under consideration (as published by the Economic Advisor to Govt. of India, Ministry of Industries).

P_c = Percentage of cement components (excluding cement supplied by the Department).

(F) Steel :

$$V_s = (0.75 * P_s / 100 * (I_{S1} - I_{S0}) / I_{S0}) * R$$

V_s = Increase or decrease in the cost of work during the quarter under consideration due to change in the rates for Steel.

R = The value of the work done in rupees during the quarter under consideration excluding the cost of steel supplied by the department and excluding other items as mentioned in this clause.

I_{S0} = The average wholesale price index for the quarter in which tenders were opened / negotiated (as published by the Economic advisor to govt. of India, Ministry of Industries).

I_{S1} = The average wholesale price index for the quarter under consideration (as published by the Economic Advisor to Govt. of India, Ministry of Industries).

P_s = Percentage of steel components (excluding steel supplied by the Department).

45A PRICE VARIATION IN - INSTALLATION OF ELEVATORS, SUPPLY/INSTALLATION OF CENTRALLY AIR CONDITIONING AND CENTRAL EVAPORATING COOLING WORKS :

In all cases of contracts for installation of elevators, supply/installation of Central Air Conditioning and Central Evaporating Cooling Works, the price quoted shall be based on the India Electrical and Electronics Manufacturers Association (IEEMA) price variation clause based on the cost of raw materials / components and related to wholesale price index number of metal products and All India Average consumer price index number of industrial workers as specified below. In case of any variation in these index numbers, the prices shall be subject to adjustment up or down in accordance with following formula.

Formatted: Normal, Indent: Left: 0", Hanging: 0.52"

$$P = \frac{P_0}{100} \left[15 + 55 \frac{MP}{MP_0} + 15 \frac{W_0(D)}{W_0} + 15 \frac{W_0(I)}{W_0} \right]$$

Formatted: Indent: Left: 0", First line: 0"

P = Price payable as adjusted in accordance with the above price variation formula.

P₀ = Price quoted / confirmed

M_{P0} = Wholesale Price Index Number for metal products as published by the office of the Economic Adviser, Ministry of Industry, DEPARTMENT of India in their weekly bulletin, Revised Index Number of Wholesale Prices (Base : 1981-82=100) for the week ending first Saturday of the relevant calendar month. The relevant month shall be that in which price was offered or negotiated whichever is later.

w₀ = All India Average Consumer Price Index Number for Industrial workers (Base : 1982 = 100) as published by Labour Bureau, Ministry of Labour, DEPARTMENT of India, for relevant calendar month. The relevant month shall be that in which price was offered or negotiated whichever is later.

The above index number MP₀ & W₀ are those published by IEEMA as prevailing on the first working day of the calendar month FOUR months prior to the date of tendering.

MP = Wholesale Price Index Number of Metal Products as published by the office of Economic Adviser, Ministry of Industry, DEPARTMENT of India, in their weekly bulletin Revised index number of wholesale prices (Base : 1981-82 = 100). The applicable wholesale price Index Number for Metal Products as prevailing on 1st Saturday of the month covering the date FOUR months prior to the date of delivery and would be as published by IEEMA.

w_{0(D)} = All India Average Consumer Price Index Number for Industrial workers prevailing for the month covering the date FOUR months prior to the date of delivery of manufactured material and would be as published by IEEMA.

w_{0(I)} = All India Average Consumer Price Index Number for Industrial workers (Base : 1982=100) as published by Labour Bureau, Ministry of Labour, DEPARTMENT of India. The applicable All India Consumer Price Index Number of Industrial workers prevailing for the FOUR months prior to the date of completion of installation / progress parts of installation and would be as published by IEEMA. The date of delivery shall be the date on which the manufactured material is actually supplied at site. The date of completion of installation (or progress part of installation shall be the date on which the work is notified as being completed and is available for inspection / duly tested. In the absence of such notification, the date of completion is not intimated; such completion shall be considered by the Engineer-in-charge which shall be final.

Note-1 The Wholesale Price Index Number for Metal Products is published weekly by the office of the Economic Adviser, but if there are any changes, the same are incorporated in the issue appearing in the following

week. For the purpose of this Price Variation Clause, the final index figures shall apply.

Note-2 The sole purpose of the above stipulation is to arrive at the entire contract under the various situations. The above stipulation does not indicate any intentions to sell materials under this contract as movables.

Note-3 The indices MP & WO are regularly published by IEEMA in monthly basic price circulars based on information bulletins from the authorities mentioned. These will be used for determining price variation and only IEEMA Circulars will be shown as evidence, if required.

General Conditions for admissibility of Escalation

1. The exact percentage of labour / material (excluding materials to be supplied by the department)/bitumen/diesel and petrol/cement/steel component for the work shall be approved by the authority while sanctioning the detailed Estimates.
2. The break-up of components of labour / materials (excluding materials to be supplied by the department)/bitumen/diesel and petrol cement/steel as indicated in Clause 45 have been pre-determined as below :

Formatted: Bullets and Numbering

<u>Item Description/Particular</u>	<u>Adjustable Portion</u>
<u>LABOUR</u>	<u>30%</u>
<u>MATERIAL</u>	<u>37%</u>
<u>H S DIESEL/PETROL</u>	<u>4%</u>
<u>CEMENT</u>	<u>18%</u>
<u>IRON & STEEL</u>	<u>11%</u>

3. While allowing price escalation the following shall be deducted from the value of work done (R): (a) Cost of material supplied by the Department. (b) Cost of services rendered as per clause 34. (C) of Secured Advance / any advance added earlier but deducted now after work is measured. (d) Cost of extra items, the rates for which have been worked out based on

Formatted: Bullets and Numbering

market rates / mutually agreed rates.

4. The first statement of escalation shall be prepared at the end of three months in

which the work was awarded and the work done from the date of start to the end of this period shall be taken into account. For subsequent statement, cost of work done during every quarter shall be taken into account. At the completion of work, the work done during the last quarter or fraction, thereof, shall be taken into account.

5. For the purpose of reckoning the work done during any period, the bills prepared during the period shall be considered. The dates of recording measurements in the Measurement Book by the Engineer shall be the guiding factor to decide the bills relevant to any period. The date of completion, as finally recorded by the competent authority in the Measurement Book shall be the criterion.

6. The index relevant to any quarter, for which such compensation is paid, shall be the arithmetical average of the indices relevant of the calendar month.

7. Price adjustment clause shall be applicable only for – the work that is carried out within the stipulated time, or extension thereof, as are not attributable to the contractor.

8. If during the progress in respect of contract works stipulated to cost Rs. 1050 lacs or less, the value of work actually done excluding cost of material supplied by the Department exceeds Rs. 1050 lacs and completion period is more than 126 months, then escalation would be payable only in respect of value of work in excess over Rs. 1500 lacs from the date of satisfying both the conditions.

9. Where originally stipulated period is 6 months or less but actual period of execution excess beyond 6 months on account of reasons not attributable to contractor, escalation amount would be payable only in respect of extended period if amount of work is more than Rs.50 lac.

10. In case the contractor does not make prorata progress in the first or another time span and the short fall in progress is covered up by him during subsequent time span within original stipulated period then the price escalation of such work expected to be done in the previous time span shall

Formatted: Bullets and Numbering

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

Formatted: Font: 11 pt, Complex Script Font: Times New Roman

be notionally given based upon the price index of that quarter in which such work was required to be done.

11. No claims for price adjustment of other than those proved herein, shall be entertained.
12. If the period of completion including extended period attributable to Government exceeds six months but cost does not exceeds more than Rs.50 lac, no escalation is admissible.
13. Similarly, if cost of works increases more than Rs.100 lac, but completion period including extended period attributable to government is less than 6 months, no escalation is admissible.
14. No provisional escalation is payable on the basis of indices of the previous quarter in absence of non publication of indices for concerned quarter by the RBI.
15. Escalation is always payable quarterly and no provisional escalation is payable monthly or fortnightly.
16. In case at the time of executing agreement, both the conditions (completion period 6 months and amount of work Rs.50 lac) for admissible of price escalation are not fulfilled and subsequently due to additional work and extension of time attributable to Government, both the conditions become fulfilled, in that case the escalation shall be payable from the date of satisfying both the conditions and only for done beyond Rs. 50 lac and in period of work beyond 6 months.
17. The contractor shall for the purpose of this condition keep such books of account and other documents as are necessary to show the amount of any increase climbed or reduction available and shall allow inspection of the same by a duly authorised representative of Government and further shall at the request of the Engineer-in-Charge furnish, verified in such a manner as the Engineer-in-Charge may require any documents so kept other information as the Engineer-in-Charge may require.

46. FORCE-MAJEURE

46.1 Neither party shall be liable to each other, for any loss or damage, occasioned by or arising out of acts of God such as unprecedented floods, volcanic eruptions, earthquake or other invasion of nature and other acts.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

47 GENERAL DISCREPANCIES AND ERRORS

47.1 In case of percentage rate tenders, if there is any typographical or clerical error in the rates shown by Department in the "G" Schedule, the rates as given in the Basic Schedule of Rates of the Department for the area shall be taken as correct.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

48 POST PAYMENT AUDIT & TECHNICAL EXAMINATION

48.1 The Government shall have right to cause an audit and technical examination of the works, and the final bills of the contractor, including all supporting vouchers, abstracts, etc., to be made within 2 years after payment of the final bill, and if, as a result of such audit and technical examination, any sum is found to have been over paid in respect of any work done by the Contractor under the contract, or any work claimed by him to have been done by him under the Contract and found not to have been executed or executed below specifications, the Contractor shall be liable to refund the amount of over payment, and it shall be lawful for Department to recover the same from him in the manner prescribed in Clause 50 or in any other manner legally permissible, and if it is found that the Contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under-payment shall be duly paid by the Government to the Contractor.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

48A PRE CHECK OR POST CHECK OF BILLS

48A.1 The Government shall have right to provide a system of pre-check of Contractor's bill by a specified Organization, and payment by an Engineer or an Accounts Officer/sr. Accounts Officer/ chief Accounts Officer/ financial Advisor, as the Government may in its absolute discretion prescribe. Any over-payments excess payments detected, as a result of such pre-check or post-check of Contractor's bills, can be recovered from the Contractor's bills, in the manner, herein before provided, and the Contractor will refund such over/excess payments.

48B CHECK MEASUREMENTS

48B.1 The department reserves to itself, the right to prescribe a scale of check measurement of work, in general, or specific scale for specific works, or by other special orders (about which the decision of the department shall be final). Checking of measurement by superior officer shall supersede measurements by the subordinate officer, and the former will become the basis of the payment. Any over/excess payments detected, as a result of such check measurement or otherwise at any stage up to the date of completion and the defect removal period specified elsewhere in this contract, shall be recoverable from the Contractor, as any other dues payable to the Government.

49 DISMANTLED MATERIALS

49.1 The Contractor, in course of the work, should understand that all materials e.g. stone, bricks, steel and other materials obtainable in the work by dismantling etc. will be considered as the property of the Government and will be disposed off to the best advantage of the Government, as per directions, of the Engineer-in-charge.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

50 RECOVERY FROM CONTRACTORS

50.1 Whenever any claim against the Contractor for the payment of a sum of money arises out of or under the contract, the Department shall be entitled to recover such sum by appropriating, in part or whole of the Security Deposit, Security Deposit at the time of enlistment of the Contractor. In the event of the security being insufficient, or if no security has been taken, then the balance or the total sum recoverable, as the case may be, shall be deducted from any sum, then due or which at any time, thereafter, may become due to the Contractor, under this or any other contract with the Governor of Rajasthan. Should this sum be not sufficient to cover the full amount recoverable, the Contractor shall pay to the Department on demand the balance remaining dues.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

The department shall, further, have the right to effect such recoveries under Public Demand Recovery Act.

Formatted: Indent: Left: -0.02", First line: 0.02"

51 JURISDICTION OF COURT

51.1 In the event of any dispute arising between the parties hereto, in respect of any of the matters comprised in this agreement, the same shall be settled by a competent Court having jurisdiction over the place, where agreement is executed

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

and by no other court, after completion of proceedings under Clause 23 of this Contract.

Note: The standard format as given above is a copy of GOR , PWF&AR agreement form no R.P.W.A.100 shall be the part of contract agreement unless otherwise the clauses or sub clauses of this section are consulted or added or replaced or amended or deleted as mentioned in section IV Special Conditions of contract. In that case provisions as mentioned under relevant clauses or sub clauses in section IV shall overrule these Conditions of Contract.

← Formatted: Centered

GOVERNMENT OF RAJASTHAN

URBAN IMPROVEMENT TRUST : AJMER

CONSTRUCTION OF G+3 HOUSES UNDER AFORDABLE HOUSEING POLICY-2009 MODEL NO. 1

Urban Improvement Trust, Ajmer

Signature of Contractor

BID DOCUMENT FOR

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units
(G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832
Ajmer.

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

SECTION - IV

SPECIAL CONDITIONS OF CONTRACT

SECTION IV SPECIAL CONDITIONS OF CONTRACT

Table of Clauses

1. SECURITY DEPOSIT.....	-
207 -	
EXTENSION OF TIME.....	- 207 -
Payment on Intermediate Certificate to be regarded as advance	Error! Bookmark not defined.
CLAUSE 11: WORKS TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS AND ORDERS ETC.	- 208 -
CLAUSE 17: CONTRACTOR LIABLE FOR DAMAGE DONE AND FOR IMPERFECTIONS....	- 209 -
CLAUSE 18: CONTRACTOR TO SUPPLY PLANT, LADDERS, SCAFFOLDING ETC....	- 210 -
Work Program	- 210 -
27 DEFINITION OF WORK.....	- 211 -
27A DEFINITION OF ENGINEER-IN-CHARGE.....	- 213 -
31.2 COMPLIANCE WITH LABOUR REGULATIONS.....	- 73 -
37 REFUND OF SECURITY DEPOSIT:	- 215 -
39.0 Personnel	- 215 -
40 SAFETY CODE	- 216 -
40.2 Protective Clothing and Footwear	- 218 -
43.3 Field Laboratory	- 218 -
52 Payments	- 219 -
53 Taking Over Certificate	- 79 -
54 USE BY EMPLOYER.....	- 79 -
55 Interference with Tests on Completion.....	- 80 -
56 Hot Mix Plant.....	- 80 -
57 Relations with Local Communities and Authorities.....	- 80 -
58 Fire Prevention.....	- 80 -
59 Interference with Traffic and Adjoining Properties	- 222 -
60 Health and Pests	- 222 -
61 Festivals and Religious Customs	- 222 -
62 Disorderly Conduct.....	- 223 -
64 Pre-construction, Inspection and testing and review of data for materials, Plant and Equipment	- 223 -
65 Public Awareness / Information Display.....	- 224 -
66 Contractor's Responsibilities.....	- 224 -
67 Provisional sum	- 224 -
68 Electric and water connection.....	- 83 -
69 Services.....	- 83 -
70 Unforeseeable Sub-Surface Conditions.....	- 225 -
71 INSURANCE	- 225 -
72 Communications.....	- 226 -
73 Joint and Several Liability.....	- 227 -
74 THE CONTRACTOR.....	- 227 -
74.1 General Obligations.....	- 227 -
74.2 Performance Security.....	- 228 -
74.3 Contractor's Representative.....	- 228 -
74.4 Co-ordination of the Works.....	- 228 -
75 Site Data.....	- 228 -
76 Security of the Site	- 229 -
77 DESIGN.....	- 229 -
77.1 General Obligations.....	- 229 -

77.2 Construction Documents - 229 -
77.3 Contractor's undertaking - 230 -
77.4 Technical Standards and Regulations - 89 -
77.5 As-Built Drawings - 230 -
77.6 Operation and Maintenance Manuals - 231 -
77.7 Error by Contractor - 231 -
77.8 Patent Rights - 231 -
78 PLANT, MATERIALS AND WORKMANSHIP - 232 -
78.1 Manner of Execution - 232 -
78.2 Delivery to Site - 232 -
78.3 Inspection - 232 -
78.4 Testing - 232 -
78.5 Rejection - 233 -
78.6 Ownership of Plant and Materials - 233 -
79 COMMENCEMENT, DELAYS AND SUSPENSION - 233 -
79.1 Commencement of Works - 233 -
79.2 Time for Completion - 234 -
80 EMPLOYER'S TAKING OVER - 234 -
80.1 Taking-Over Certificate for Works - 234 -
80.2 Taking Over Certificate after Operation and Maintenance - 93 -
80.3 Use by Employer - 234 -
80.4 Interference with Tests on Completion - 235 -
81 TESTS AFTER COMPLETION - 235 -
81.1 Employer's Obligations - 235 -
81.2 Delayed Tests - 236 -
81.3 Retesting - 236 -
81.4 Failure to Pass Tests after Completion - 236 -
82 DEFECTS LIABILITY FOR WORKS - 237 -
82.1 Completion of Outstanding Work and Remedying Defects - 237 -
82.2 Cost of Remedying Defects - 237 -
82.3 Extension of Contract Period - 238 -
82.4 Failure to Remedy Defects - 238 -
82.5 Removal of Defective Work - 238 -
82.6 Further Tests - 238 -
82.7 Right of Access - 239 -
82.8 Contractor to Search - 239 -
82.9 Performance Certificate - 239 -
82.10 Unfulfilled Obligations - 239 -
83 Display Panels - 98 -
84 Site Order Book and hindrance register - 98 -
85 Epidemics - 240 -
86 Alcoholic Liquors or Drugs - 240 -
87 Arms and Ammunition - 240 -
88 General - 99 -
89 Site Office & car for Engineers & other Supervision staff - 99 -
90 Confirmatory survey of site of Bidder - 99 -

Formatted: Font: 10 pt, Complex Script Font: 10 pt

Formatted: Font: 10 pt, Complex Script Font: 10 pt

Formatted: Font: 10 pt, Complex Script Font: 10 pt

Formatted: Font: 10 pt, Complex Script Font: 10 pt

Formatted: Font: 10 pt, Complex Script Font: 10 pt

Formatted: Font: 10 pt, Complex Script Font: 10 pt

SECTION IV

SPECIAL CONDITIONS OF CONTRACT

(The Special conditions of Contract shall complement, amend, and supplement the provisions in the Section III, General Conditions of Contract, and the Clause Numbers provided herein refer to the same Clause Numbers provided in the Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those contained in the General Conditions of Contract. This Section shall therefore be read in conjunction with Section III of the Bid Documents.)

INTERPRETATION

In interpreting these Conditions of Contract, singular also means plural, male also means female, and vice versa. Headings and cross-references between clauses have no significance. Words have their normal meaning under the language of the Contract unless specifically defined.

1. SECURITY DEPOSIT

1.1 Within 10 (Ten) days of the date of issue of the Letter of Acceptance, the successful bidder shall furnish a Security Deposit in the amount of 10% (ten percent) of the Contract Price before or at the time of executing the agreement.

1.2 The Security Deposit shall be in the form of unconditional Bank Guarantee & shall be in the name of **Secretary, Urban Improvement Trust, Ajmer**, issued from any branch of Nationalized /Scheduled Bank. Such Bank Guarantee, if invoked, shall be en-cashable when presented in specified Branch Office Located at Ajmer. However, during execution of the work if cost of work exceeds as shown at the time of furnishing bank guarantee, balance security deposit shall be deducted @ 10 % from the Running Account Bills.

1.3 “The security deposit @ 10% of the gross amount of the running bill shall be deducted from each running bill and shall be refunded as per rules on completion of the contract as per terms and conditions. The earnest money deposited shall however be adjusted while deducting security deposit from the first running bill of the contractor. There will be no maximum limit of security deposit.

Formatted: Normal

5 EXTENSION OF TIME

Add following Para:

5.2 The contractor should foresee the hindrances that are likely to delay his performance and give advance warning to the Engineer in Charge for the same. He should also indicate the components of the work that are likely to be affected by the delay and the impact of the same if any on the likely date of completion of the work.

5.3 However, the Time Extension is applicable only if contractor has executed all the unhindered scope of work. Any delay on account of deposition in provisional sum to concerned agency, delay in shifting of utilities, delay in getting approvals etc shall be on the part of contractor. It shall be the responsibility of contractor to do the required liasoning with concerned departments and get the necessary approvals and execution of required work by concerned agency. However, UIT-Ajmer shall provide all assistance to contractor in this regard.

Formatted: Justified, Indent: Left: 0", Hanging: 0.5", Outline numbered + Level: 2 + Numbering Style: 1, 2, 3, ... + Start at: 3 + Alignment: Left + Aligned at: 0.5" + Tab after: 0.75" + Indent at: 0.75", Tabs: Not at 0.75"

7 PAYMENT ON INTERMEDIATE CERTIFICATE TO BE REGARDED AS ADVANCE

7.1 stands amended to the extent that the minimum amount of bill to become payable shall be as stipulated in the Appendix to Bid.

10 STORES SUPPLIED BY GOVERNMENT

10 B & 10 C Deleted in its entirety.

Formatted: Justified, Indent: Hanging: 0.56", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 10 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.56" + Indent at: 0.56"

CLAUSE 11: WORKS TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS AND ORDERS ETC.

Add following in Para 11.1

All the designs and construction drawings of dwelling G+3 unit works is required to be submitted by the contractor after required survey and investigation of soil strata to Engineer in Charge for approval.

12 Alterations, Omissions and Additions in Work
be replaced by the following :

12.1 The Engineer-in-charge shall have power to make any alterations, omissions or additions to or substitutions for the original specifications, drawings, designs and instructions, that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-charge and such alterations, omission, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work, which the contractor may be directed to do in the manner above specified as part of the work, shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work, and the certificate of the Engineer-in-charge shall be conclusive as to such proportion. The rates for such additional, altered or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order:

- (i) If the rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract for the work.
- (ii) If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, such rates will be derived from the rates for a similar class of work as are specified in the contract for the work.
- (iii) If the rates for the altered, additional or substituted work can not be determined in the manner specified in the sub-clauses (i) to (ii) above, then the rates for such composite work item shall be worked out on the basis of the concerned Schedule of Rates PWD BSR-2009 Ajmer Circle (Civil, Sanitary & Road) & PWD BSR 2008 Jaipur Circle (Electrical) plus specified above minus/plus prevailing percentage which the relevant section of price schedule. Provided always that if the rate for a particular part or parts of the item is not in the Schedule of Rates PWD BSR- 2009 Ajmer Circle (Civil, Sanitary & Road) & PWD BSR 2008 Jaipur Circle (Electrical), the rate for such part or parts will be determined by the Engineer-in-Charge on the basis of the PWD BSR- 2009 Ajmer Circle (Civil, Sanitary & Road) & PWD BSR 2008 Jaipur Circle (Electrical), plus specified above minus/plus prevailing percentage which the relevant section of price schedule.
- (iv) If the rates for the altered, additional or substituted work item can not be determined in the manner specified in sub-clauses (i) to (iii) above, then the contractor shall within 7 days of the date of receipt of order to carry out the work, inform the Engineer- in – Charge of

Formatted: Font: Bold, Complex Script Font: Arial, Bold, English (U.K.)

Formatted: Font: Bold, Complex Script Font: Arial, Bold, English (U.K.)

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

Formatted: Indent: Hanging: 0.54", Space Before: 0 pt, After: 0 pt, Outline numbered + Level: 2 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.54" + Indent at: 0.54"

Formatted: Bullets and Numbering

the rate which it is his he intends to charge for such class of work supported by analysis of the rate or rates claimed and the Engineer-in-Charge shall determine the rate or rates on the basis of prevailing market rates, and pay the contractor accordingly. However, the Engineer-in-Charge, by notice in writing, will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates on items falling under the clause.

(v) Concerned Schedule of Rates of the District/area are

- Basic Schedule of rates of PWD BSR- 2011 Ajmer Circle (Civil, Sanitary & Road) & PWD BSR 2008 Jaipur Circle (Electrical) issued by Public works department
- The analysis of rate approved by the competent authority of non BSR items at the time of preparation of BOQ.

Formatted: Bullets and Numbering

The rate of any such work, which is in excess of the deviation limit, shall be determined in accordance with the provisions contained in Clause 12A.

12A

12A.1 The quantum of additional work for each item shall not exceed 50% of the original quantity given in the agreement and the total value of additional work shall not exceed 20% of the total contract value, unless otherwise mutually agreed by the Engineer-in-charge and the Contractor.

12A.2 In case of contract substituted items or additional items, which results in exceeding the deviation limit laid down in this clause, which the contractor is required to do under clause 12 above, the contractor shall within 7 days from the receipt of order, claim revision of the rate supported by proper analysis in respect of such items for quantities in excess of the deviation limit notwithstanding the fact that the rates for such items exist in the tender for the main work or can be derived in accordance with the provision of sub clause (ii) of clause 12 and the Engineer-in-Charge, may revise their rates having regard to the prevailing market rates and the contractor shall be paid in accordance with the rates so fixed. The Engineer-in-Charge shall, however, be at liberty to cancel his order to carry out such increased quantities of work by giving notice in writing to the contractor and arrange to carry it out in such manner, as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates of items failing under this Clause.

12A.3 All the provisions of the preceding paragraph shall equally apply to the decrease in rates of items for quantities in excess of the deviation limit notwithstanding the fact that the rates for such items exist in the tender for the main work or can be derived in accordance with the provisions of sub-clause(ii) of the preceding clause 12 and the Engineer-in-Charge may revise such rates having regard to the prevailing market rates unless otherwise mutually agreed by the Engineer-in-Charge and the Contractor.

CLAUSE 17: CONTRACTOR LIABLE FOR DAMAGE DONE AND FOR IMPERFECTIONS

Replace Para 17.1 by following:

17.1 If the Contractor or his work people or servants shall break, deface, injure or destroy any part of a building, in which they may be working or any

Formatted: Bullets and Numbering

building, road, fence, enclosure, or cultivated ground contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work, while in progress, from any cause, whatsoever, or any imperfections become apparent in it, till finalization of work including O&M period, after a certificate, final or otherwise of its completion, shall have been given by the Engineer-in-charge, may cause the same to be made good by other workmen and deduct the expense (of which the certificate of the Engineer-in-charge shall be final) from any sums that may be then, or at any time thereafter, may become due to the Contractor, or from his security deposit, or the proceeds of sale thereof, or of a sufficient portion thereof .

CLAUSE 18: CONTRACTOR TO SUPPLY PLANT, LADDERS, SCAFFOLDING ETC.

Add following para:

18.2 Machinery

Contractor has to deploy all the machinery required for execution as given in UIT's requirement of this volume. In case contractor does not deploy the required machinery, UIT will have the right to deploy such machinery and twice the hire charges of such machinery shall be deducted from contractor's bill. The work delayed on this account shall be entirely on the part of contractor.

No machinery/material of contractor can be removed/ shifted from site without written permission of Engineer In charge. Before removal/shifting of any material contractor has to seek permission in writing.

Contractor has to make all security arrangement at its own cost for the security of material/machinery/manpower. For the material for which supply has been paid by UIT, contractor shall make all arrangements for its security. In case of any theft/damage for whatsoever may be the reason, the amount of supply shall be deducted from contractor's bill and shall be considered loss of contractor for which no compensation /payment shall be made/claim be entertained.

22 Works to be under the direction of the engineer –in-charge

ADD THE FOLLOWING

WORK PROGRAM

22.2 The Contractor shall submit the Work Program within 14 (fourteen) Days of issuance of the Letter of Acceptance. The Contractor shall submit an assessed monthly cash flow statement along with his program.

22.3 The Contractor shall provide an updated Work Program by the last day of each Month, which shall clearly demonstrate the actual progress achieved on each activity, the effect of the progress achieved on the timing of the remaining work, and the proposed changes in activities that will enable the Contractor to complete the Works within the Intended Completion Date. In case the Contractor fails to submit an updated Work Program within this time limit, the Employer will be entitled to withhold an amount of Rs. 100,000/- (Rupees one lacs only) from the next payment certificate, and continue to withhold this amount until the next payment after the date on which the overdue program has been submitted.

22.4 In addition to the updated program, Monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the calendar month after that in which the commencement date occurred; reports shall be submitted monthly there after, each within 14 days of 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) Photographs, video recording of work carried out and detailed descriptions of progress, including each stage of design, procurement, manufacture, delivery to site, construction, erection, testing and commissioning;
- b) Charts showing the status of construction documents, purchase orders, manufacture and construction;
- c) For the manufacture of each main item of plant and materials, the name of the manufacturers, manufacture location, percentage progress and the actual and expected dates of commencement dates of manufacture, Contractor's inspections, tests and delivery.
- d) Records of personnel and Contractors equipment on site;
- e) Copies of quality assurance document, test results and certificates of Materials;
- f) Safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- g) Comparison of actual and planned progress, with details of any aspects which may jeopardize the completion in accordance with the Contract, and the measures being taken (or to be) adopted to overcome such aspects.

Formatted: Bullets and Numbering

Formatted: Justified, Indent:
Hanging: 0.5", Numbered + Level: 1
+ Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.5" + Indent at: 0.5"

22.5 For the guidance of the contractor and for uninterrupted work execution with minimum public inconvenience a Mile Stone Execution Plan is enclosed in the Section: IX Appendix to Bid. The work Plan submitted by the contractor should be in the line with this Mile Stone Date Chart.

Formatted: Justified, Indent:
Hanging: 0.5", Space Before: 3 pt,
After: 3 pt, Numbered + Level: 1 +
Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.5" + Indent at: 0.5"

24 IMPORTED STORE ARTICLES TO BE OBTAINED FROM GOVERNMENT

Deleted in its Entirety.

27 DEFINITION OF WORK

be replaced with the following :

DEFINITIONS

Capital initials are used to identify defined terms.

Competent Authority is the Employer or his duly authorized representative

Acceptance is the date when the Contract came into existence upon receipt by the Contractor of the **Letter of Acceptance** issued by the Employer.

The Completion Date is the date when the Employer notifies the Contractor that the Works can be used by the Employer.

The Contract is the contract between the Employer and the Contractor.

The Special conditions of Contract define the documents and other information which comprise the Contract.

The Contractor is a person or corporate body whose bid to carry out the Works has been accepted by the Employer.

The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.

Formatted: Font: Not Bold

The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; **Weeks** are calendar weeks; **Months** are calendar months.

A **Defect** is any part of the Works not completed in accordance with the Contract.

Defect Liability Period is the period as stated in the Appendix to Bid within which the Employer may notify the Contractor of a Defect.

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

The **Initial Contract Price** is the Contract Price at the date of the Employer's written acceptance of the Bid.

Plant is any integral part of the Works, which is to have a mechanical, electrical, electronic or chemical function.

Temporary Works are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the Works.

The **Works** are what the Contract requires the Contractor to construct, install, and hand over to the Employer.

Formatted: Font: 3 pt

Notice to Proceed is the notice issued by the Employer to the Contractor to proceed with the Works. Whenever possible the Notice to Proceed will be issued by the Engineer-in-charge immediately upon signing of the Contract, or as soon thereafter as is feasible considering the availability of the Site and other relevant factors.

The **Employer** is the Executing Agency, Urban Development Department of Government of Rajasthan represented by the Secretary, Urban Improvement Trust, Ajmer

Chief Engineer is the Chief Engineer of UIT.

Start Date is the date of Issuance of the Notice to Proceed, or such other Start Date as may be specified in the Notice to Proceed. This is the date when the Contractor can commence work on the Contract, but does not necessarily coincide with any of the Site Possession Dates

Site is that area which is required for proper completion of the Works, as illustrated in the Drawings. Unless otherwise indicated on the Drawings, the Contractor will be responsible for making his own arrangements for providing any other space for site offices, materials testing laboratory, storage of materials and equipment, disposal of excess spoil and waste, etc., as may be required for proper execution of the Works.

Site Possession Date is the date upon which the Employer shall give possession of all parts of the Site to the Contractor, or of such parts of the Site sufficient for the Contractor to commence and undertake the Works in accordance with the agreed Work Program. The Site Possession Date, or Dates for different parts of the Site in cases where the whole of the Site is not available, will be notified to the Contractor in the Notice to Proceed.

Work Program is the program submitted by the Contractor and approved by the Employer which shows the general methods, arrangements, order and timing for all the activities in the Works and according to which the

Contractor shall perform and complete the Works by the Intended Completion Date. In case the whole of the Site is not available upon the Start Date, the Contractor and Employer shall mutually agree on a Work Program that takes into consideration the date of availability of the different parts of the Site and enables the Contractor to complete the Works within the intended Completion Date.

Defects Correction Period is 14 (fourteen) Days from the date of receipt by the Contractor of the Employer's notice to correct any Defects in the Works.

27A DEFINITION OF ENGINEER-IN-CHARGE

Engineer in Charge is the Executive Engineer, Urban Improvement Trust; based in the City under whose jurisdiction the Works are to be taken up who shall supervise and be in charge of the work and who shall sign the contract on behalf of the Governor."

The Engineer shall designate in writing to the Contractor the Engineer's Representatives appointed under the Project to assist the Engineer in supervision of the Works. The Engineer's Representative shall be the Assistant Engineer of UIT, Ajmer or the Engineer of the Supervision Consultant appointed by UIT, Ajmer.

30 Deleted

31 Add the following:

31.2 COMPLIANCE WITH LABOUR REGULATIONS:

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

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

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

(a) Workmen Compensation Act 1923:- The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

(b) Payment of Gratuity Act 1972: Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

(c) Employees P.F and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the employer plus workers @ 12%/8.33%. The benefits payable under the Act are:

(i) Pension to family pension on retirement or death, as the case may be.

(ii) Deposit linked insurance on the death in harness of the worker.

(iii) Payment of P. F accumulation on retirement/death etc.

(d) Maternity Benefit Act 1951:- The Act provides for leave and some other benefits to workmen/employees in case of confinement or miscarriage etc.

(e) Contract Labour (Regulation & Abolition) Act 1970:- The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labor.

(f) Minimum Wages Act 1948: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment Construction of Buildings, Roads, Runways are scheduled employment.

(g) Payment of Wages Act 1936:- It lays down as to by what date the wages are to be paid when it will be paid and what deductions can be made from the wages of the workers.

(h) Equal Remuneration Act 1979,- The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.

(i) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall be worked out by taking wages as Rs.2500/- per

month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

j) Industrial Disputes Act 1947:- The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

k) Industrial Employment's (Standing Orders) Act 1946:- It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get same certified by the designated Authority.

l) Trade Unions Act 1926:- The Act lays down the procedure for registration of trade union of workmen and employers. The Trade Union registered under the Act have been given certain immunities from civil and criminal liabilities.

m) Child Labour (Prohibition & Regulation) Act 1986:- The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of Children in all other occupations and processes. Employment of Child Labor is prohibited in Building and Construction Industry.

n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:-

The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home upon the establishment and back, etc.

p) Factories Act 1948:- The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 more persons without the aid of power engaged in manufacturing process.

CLAUSE 37: REFUND OF SECURITY DEPOSIT:

Replace the entire clause by the following:

37.1 The security deposit shall be refunded after satisfactory completion of the Defect Liability Period provided that the final bill has been paid.

No Ch 39 CONTRACTOR TO ENGAGE TECHNICAL STAFF

REPLACE THE ENTIRE CLAUSE BY THE FOLLOWING

39.0 PERSONNEL

The Contractor shall provide details of the key personnel proposed for administration, execution and quality control of the Contract, and shall complete the following Schedule of Key Personnel which summarizes their qualifications and experience. The Contractor shall attach biographical data in support of his proposal. Engagement of the proposed personnel will be subject to the Employer's approval, and in case the Employer does not approve any of the proposed personnel the Contractor will be required to provide a replacement with equivalent or better qualifications, abilities and relevant experience. The contractor shall deploy staff at site so as to complete the work in time and following all the safety precaution at site for execution of the work.

Schedule of Key Personnel

<u>Position</u>	<u>Name</u>	<u>Qualification</u>	<u>Min. Experience</u>
<u>Project Manager</u>		<u>B.E. (Civil) or Equivalent</u>	<u>7 Years</u>
<u>Additional project Manager</u>		<u>BE Civil</u>	<u>3 years</u>
<u>Senior engineer quality control (Site)</u>		<u>Diploma Civil</u>	<u>5 Years</u>
<u>Site Engineer cum Quantity Surveyor</u>		<u>Degree/ Diploma (Civil)</u>	<u>3 Years/5 years</u>
<u>Computer operator cum billing engineer</u>		<u>Having computer knowledge of MS office & AUTO CAD</u>	<u>2-3 years</u>

40 SAFETY CODE

REPLACE THE CLAUSE BY THE FOLLOWING

40.1 The proposed works are within in city boundaries and crowded areas. It will be the responsibility of the contractor to not only follow the safety codes but also ensure the compliance of other instructions and needs according to the site to ensure that no worker or by stander is harmed. All the applicable safety codes of the Bureau of Indian Standards are to be applicable as per the specific requirements. Special attention is invited to the following codes in their latest versions:

- IS 3696 Safety Code for Scaffolds and Ladders
 - IS 7969 Safety Code for Handling and Storage of Building Material
 - IS 3764 Excavation Works – Code of Safety
 - IS 4081 Safety Code for Blasting and related Drilling Operations.
 - IS 11972 Safety precautions to be taken while entering a sewerage system
- Due precautions shall be taken by the Contractor, at his own cost, to ensure the safety and protection against accidents of all staff and Labour engaged on the works, local residents in the vicinity of the works, and the public traveling through the works. The contractor shall deploy one competent Safety and Accident Prevention Officer, qualified to promote and maintain safe working practices. The SAPO shall have authority to issue instructions

Formatted: Space Before: 12 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

and shall take protective measures to prevent accidents, including but not limited to the establishment of safe working practices and the training of staff and labor in their implementation. The contractor shall furnish to the department the name and qualification of such officer before the start of the work.

The contractor/firm or company while executing the work will adopt all safety measures at his cost to safeguard from any loss of life and damage of public and private property. If any loss and damage is occurred, they will pay the full compensation from their own pocket to the concern. All the consequence (legal and or financial) will be born by the contractor only and UIT will not be responsible in any way.

The contractor shall not work before sunrise and after the sunset.

The contractor/firm/company is bound to get the workmen insured against accident from the Insurance Company at his own cost.

The contractor will pay compensation to the house owner or to the owner of any adjoining property or any other works for the damaged sustained on account of this work while in progress or complete from his own pocket.

Contractor shall be the sole custodian of the men and material at work and will be fully responsible for any loss of life or other wise occurred during the execution of the works

Special attention should also be paid to appointing a Safety and Accident Prevention Officer on site by the Contractor. The contractor should also ensure proper Protective Clothing and Footwear for all staff, maintain First Aid Facilities at site and maintain full record of the Labour and Accidents.

Formatted: Font: 11 pt, Not Bold,
Complex Script Font: 11 pt

40.2 PROTECTIVE CLOTHING AND FOOTWEAR

The Contractor shall, at his own expense, provide protective clothing and equipment to all staff and labour engaged on the Works to the satisfaction of the Engineer, and on his failure to do so the Employer shall be entitled to provide the same and recover the cost from the Contractor. Such clothing and equipment shall include, at a minimum, protective footwear for workmen undertaking concrete mixing work, protective footwear and gloves for any workmen performing bituminous paving works, protective footwear, clothing, cream, gauntlet-type gloves, hats, safety glasses or goggles and filter masks for workmen undertaking lime stabilisation works, hard hats for workmen engaged on bridge construction, and otherwise as appropriate to the job in hand and to the Engineer's satisfaction.

43 QUALITY CONTROL

Add following

43.2 QAQC MANUAL TO BE FOLLOWED

Deleted in its entirety.

43.3 FIELD LABORATORY

Within 15 (fifteen days) from the date of start of work, the Contractor shall arrange to provide a fully furnished and adequately equipped field laboratory as per detail given below and as per specifications (BOQ) and directions of the Engineer, including maintenance of the same. This shall be removed at the completion of the work. All dismantled items of field laboratory and all equipments shall be property of the contractor at the completion of the work.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

If the contractor not arrange the field laboratory as specified above then the engineer in charge will deduct the Rs. 50000/- per month from the running account bill due with the contractor.

Formatted: Font: 13 pt

Formatted: Font: 13 pt

The calibration of the laboratory equipment and instrument shall at the initial stages be certified by agencies approved by the Engineer. Laboratory equipment shall be properly maintained and calibrated throughout the period of the Contract by the Contractor at his own expense. The Contractor shall notify the Engineer-in-charge r in sufficient advance prior to conducting any tests for materials and work. The Engineer-in-charge will also inspect the laboratory and the Contractor shall provide adequate facilities to the Engineers for his independent verification of the accuracy and adequacy of the facilities.

<u>1</u>	<u>Balance (2 type) volume measuring apparatus & hand tools etc.</u>
<u>2</u>	<u>Oven</u>
<u>3</u>	<u>Sieves, sieve shaker and hydrometer</u>
<u>4</u>	<u>Atterberg limit apparatus</u>
<u>5</u>	<u>Procter/modified proctor (IS heavy) density equipment</u>
<u>6</u>	<u>Compression testing machine</u>
<u>7</u>	<u>Cube moulds</u>
<u>8</u>	<u>Slump test</u>
<u>9</u>	<u>Vicat apparatus</u>

<u>10</u>	<u>Core drilling equipment</u>
<u>11</u>	<u>Measuring instruments</u>
<u>12</u>	<u>Leveling instruments</u>

ADD FOLLOWING CLAUSES :

52 PAYMENTS

52.1 Payment for Material: With respect to materials and Plant brought by the Contractor to the site for incorporation in the permanent works, No claim shall be made by the Contractor unless the following conditions have been met to the Engineers satisfaction.

Formatted: Font: 11 pt, Complex Script Font: 11 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

- i. The materials and plant are in accordance with the specifications for the works.
- ii. The materials and the plant have been delivered to the site and are properly stored and protected against loss, damage or deterioration.
- iii. The Contractors records of the requirements, orders, receipts and use of materials and plant are kept in a form approved by the Engineer, and such records are available for inspection by the Engineer.
- iv. The materials are to be used within a reasonable time as decided by the Engineer and the Contractor shall not unnecessarily procure any material or equipment too much in advance.

Formatted: Indent: Left: 0.25", Hanging: 0.25", Numbered + Level: 1 + Numbering Style: i, ii, iii, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.79" + Indent at: 0.79", Tabs: Not at 0.79"

52.2 Other Payments: Payment shall be made in stages for each component as envisaged under:

Formatted: Font: 11 pt, Bold

Formatted: Font: 11 pt

Formatted: Font: 11 pt, Not Bold

Formatted: Font: 11 pt

I Excavation for foundation etc.

Formatted: No Spacing, Left, Space After: 0 pt, No bullets or numbering

After Excavation for every 500 m and it's backfilling complete 100 % of the value of work

II Supply of Bricks, cement , Steel and sanitary pipes etc :

<u>On supply of Bricks.</u>	<u>75 % of the value of Bricks</u>
<u>On supply of cement, , door , window, grill etc</u>	<u>75 % of the value of Material</u>
<u>On supply of steel</u>	<u>75 % of the value of Steel</u>
<u>On supply of sanitary pipes & sanitary items</u>	<u>75 % of the value of items</u>

52.3 The terms for payment certificates shall be as under
The payment for works shall be made as per actual work done and measured as per the provision of the contract.
The amount to be debited to the contractor for any materials and plant incorporated into the permanent works shall be equivalent to the credit previously granted to the contractor for such materials and plant pursuant to above Sub clause as determined by Engineer.
Deductions from the Payment Certificates will be made towards Income Tax, Sales Tax, Turnover Tax, and Royalties, as per provisions of the statutory authorities, in force from time to time in the State of Rajasthan.

Formatted: Font: 11 pt, Complex Script Font: 11 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

Formatted: Font: 11 pt, Complex Script Font: 11 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

53 Taking Over Certificate

The Contractor may apply by notice to the Engineer-in-charge for a Taking-Over Certificate not earlier than 7 days before the Works or Section (as the case may be) will, in the Contractor's opinion, be complete and ready for taking over. The Engineer-in-charge shall, within 14 days after the receipt of the Contractor's application:

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

- (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 minor outstanding work that does not affect the use of the Works or Section for their intended purpose) including passing the Tests on Completion; or
- (b) reject the application, giving his 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 such work before issuing a further notice under this Sub-Clause.

Formatted: Justified, Indent: Left: 0.5", Hanging: 0.48", Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Tab after: 0.25" + Indent at: 0.25", Tabs: Not at 0.25"

If the Engineer-in-charge fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 7 days, and if the Works or Section (as the case may be) are substantially complete in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

54 USE BY EMPLOYER

The Employer shall not use any part of the Works unless the Engineer-in-charge has issued a Taking-Over Certificate for such part. If a Taking-Over Certificate has been issued for any part of the Works (other than a Section), the liquidated damages for delay in completion of the remainder of the Works (and of the Section of which it forms part) shall, for any period of delay after the date stated in such Taking-Over Certificate, be reduced in the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be); such values shall be determined by the Engineer-in-charge in accordance with the provisions of Clause 34. The provisions of this paragraph shall only apply to the rate of liquidated damages under Sub-Clause 2.1, and shall not affect the limit of such damages.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

: - If the Employer does use any part of the Works before the Taking-Over Certificate is issued:

Formatted: Font: 13 pt

- (a) the part which is used shall be deemed to have been taken over at the date on which it is used,
- (b) the Engineer-in-charge shall, when requested by the Contractor, issue a Taking-Over Certificate accordingly, and the Contractor shall cease to be liable for the care of such part from such date, when responsibility

Formatted: Justified, Indent: First line: 0", Space Before: 0 pt, After: 0 pt, Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.5" + Indent at: 0.5", Tabs: Not at 0.5"

Formatted: Bullets and Numbering

shall pass to the Employer. After the Employer 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, and the Contractor shall carry out such Tests on Completion as soon as practicable, before the expiry of the Contact Period.

55 Interference with Tests on Completion

If the Contractor is prevented from carrying out the Tests on Completion by a cause for which the Employer (or another contractor employed by the Employer) is responsible, the Employer shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed. The Engineer-in-charge 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 of the Contract Period. The Engineer shall require the Tests on Completion to be carried out by 14 days' notice and in accordance with the relevant provisions of the Contract. If the Contractor incurs additional Cost as a result of this delay in carrying out the Tests on Completion, such Cost plus reasonable profit shall be determined by the Engineer-in-charge in accordance with the provisions of Clause 34 and shall be added to the Contract Price.

56 Hot Mix Plants

Deleted in its entirety.

57 Relations with Local Communities and Authorities

In sitting and operating his plant and facilities and in executing the Works the Contractor shall at all times bear in mind and to the extent practicable minimise the impact of his activities on existing communities. Where communities are likely to be affected by major activities such as road widening or the establishment of a camp, large borrow pit or haul road, he shall liaise closely with the concerned communities and their representatives and if so directed, shall attend meetings arranged by the Engineer-in-charge or Employer to resolve issues and minimise impacts on local communities.

58 Fire Prevention

The Contractor shall take all precautions necessary to ensure that no vegetation along the line of the road outside the area of the permanent works is affected by fires arising from the execution of the Works. The Contractor shall obtain and follow any instructions of the competent authorities with respect to fire hazard when working in the vicinity of gas installations. Should a fire occur in the natural vegetation or plantations adjacent to the road for any reason the Contractor shall immediately suppress it. In the event of any other fire emergency in the vicinity of the Works the Contractor shall render assistance to the civil authorities to the best of his ability. Areas of forest, scrub or plantation damaged by fire considered by the Engineer to have been initiated by the Contractor's staff or labour shall be replanted and otherwise restored to the satisfaction of the Engineer-in-charge at the Contractor's expense.

59 INTERFERENCE WITH TRAFFIC AND ADJOINING PROPERTIES

IN CASE ANY OPERATION CONNECTED WITH THE WORKS NECESSITATES DIVERSION, OBSTRUCTION OR CLOSURE OF ANY ROAD, RAILWAY, WATERWAY OR ANY OTHER RIGHT OF WAY, THE APPROVAL OF THE ENGINEER-IN-CHARGE OR THE ENGINEER'S REPRESENTATIVE AND THE RESPECTIVE COMPETENT AUTHORITIES SHALL BE OBTAINED WELL IN ADVANCE BY THE CONTRACTOR. IN CASE THE CONTRACTOR'S OPERATIONS OBSTRUCT ACCESS TO ADJACENT PROPERTIES, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE REASONABLE TEMPORARY ACCESS TO THE AFFECTED PARTIES. IN CASE THE CONTRACTOR FAILS TO PROVIDE ADEQUATE TEMPORARY FACILITIES, THIS SHALL BE DEEMED TO BE AN UNCORRECTED DEFECT UNDER THE TERMS OF CLAUSE 31 AND THE EMPLOYER SHALL HAVE THE RIGHT TO ENGAGE A THIRD PARTY TO CORRECT THE DEFECT AND THE COST OF SUCH CORRECTION WILL BE DEDUCTED FROM THE CONTRACT PRICE.

The contractor will also be responsible to ensure completion of his work with utmost effort in earliest possible period to ensure minimum inconvenience to the public at large. If in the opinion of the Engineer in Charge, the work has not been done in time and the passage way not restored satisfactorily in time, he may after giving a notice of seven days have the work done through any other agency. He will in these circumstances enter the work done as work done by the contractor in measurement book and pay for the same to the contractor and also recover the actual cost paid by him for the work plus 5% of the value of this work from the payments or any other money due to the contractor.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

60 HEALTH AND PESTS

The Contractor shall at his own expense and throughout the period of the Contract ensure that suitable arrangements are made for the prevention of epidemics and for all necessary welfare and hygiene requirements for his staff and labour, and shall comply with all the regulations and requirements of the local health authorities with respect to disease prevention and control. He shall warn his staff and labour of the dangers of communicable diseases including those transmitted by insects, water, faecal/oral contact and sexual activity. The Contractor shall take the precautions necessary to protect all staff and labour employed on the Site from insect nuisance, rats and other pests and minimise the dangers to health and the general nuisance caused by the same. Should malaria or other insect-borne diseases be prevalent in the area, he shall provide his staff and labour with suitable prophylactics, equip living accommodation with screens and bed-nets, and carry out spraying with approved insecticides, as appropriate and to the Engineer's satisfaction.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

61 FESTIVALS AND RELIGIOUS CUSTOMS

The Contractor shall in all dealings with labour in his employment have due regard to all recognised festivals, days of rest and religious or other customs.

Formatted: Font: 11 pt, Not Bold

62 DISORDERLY CONDUCT

The Contractor shall at all times take reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his employees and for the preservation of peace and protection of persons and property in the neighbourhood of the Works against the same. "Disorderly conduct" shall include but not be limited to harvesting of natural resources such as firewood or fish by the Contractor's labour when this is done to the detriment of pre-existing local interests.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

63 Site Office for Engineer and Other Supervisory Staff

Refer Clause No. 89

Formatted: Indent: Left: 0", First line: 0", Numbered + Level: 2 + Numbering Style: 1, 2, 3, ... + Start at: 63 + Alignment: Left + Aligned at: 0.75" + Tab after: 1.13" + Indent at: 1.13", Tabs: 0", List tab + Not at 0.25" + 1.13"

64 PRE-CONSTRUCTION, INSPECTION AND TESTING AND REVIEW OF DATA FOR MATERIALS, PLANT AND EQUIPMENT

64.1 The Contractor shall place order for the material and the equipment only after approval of the Engineer-in-charge. The Contractor shall submit the detailed drawings to the Engineer-in-charge for approval.

Formatted: Font: 11 pt, Bold

Formatted: Font: 11 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

64.2 The Contractor shall inform the Engineer-in-charge about the likely dates of manufacturing, testing and dispatching of the material. The Contractor shall notify the Engineer-in-charge for inspection and testing, at least twenty eight (28) days prior to packing and shipping and shall supply the manufacturer's test results and quality control certificates.

Formatted: Font: 11 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

64.3 The inspection and test categories shall be applied prior to delivery of the equipment, of various categories as indicated in the technical specifications for each type of equipment.

Formatted: Font: 11 pt, Complex Script Font: 11 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

Category A: The drawing has to be approved by the Engineer-in-charge before starting of any work at site . The material has to be inspected by the Engineer -in-charge or an inspecting agency approved by the Engineer-in-charge at the manufacturer's premise before packing and dispatching. The inspection charges of the agency will be borne by the Employer but the contractor has to pay the inspection charges. The contractor will include in their next bill the inspection charges and the same will be reimbursed by the Employer from the provisional sum. The contractor shall provide the necessary equipment and facilities for tests and the cost thereof shall be borne by the Contractor.

Category B: The drawings of the equipment have to be submitted and to be approved by the Engineer-in-charge. The material has to be tested by the manufacturer and the manufacturer's test certificates are to be submitted and approved by the Engineer-in-charge before dispatching of the equipment. Not withstanding the above, the Engineer-in-charge, after examination of the test certificates, reserves the right to instruct the Contractor for retesting, if required, in the presence of the Contractor's representative.

Category C: The material may be manufactured as per standards and deliver to the site.

For material / equipment under Category ‘A’ and ‘B’ the Engineer-in-charge s will provide an\ authorization for packing and shipping after inspection.

Inspection category		
<u>Sr. no.</u>	<u>Item</u>	<u>Category of inspection</u>
<u>1</u>	<u>Bricks , Sanitary pipes, Electrical items</u>	<u>A</u>
<u>2</u>	<u>Other materials or as specified in section V</u>	<u>B</u>

64.4. For material / equipment under Category ‘A’ and ‘B’ the Engineer-in-charge s will provide an authorization for packing and shipping after inspection.

Formatted: Font: 11 pt, Complex Script Font: 11 pt

64.5. The testing, approval for dispatching shall not absolve the Contractor's obligations for satisfactory performance of the plant.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

65 PUBLIC AWARENESS / INFORMATION DISPLAY

Formatted: Font: 11 pt, Complex Script Font: 11 pt

The Contractor shall, at his own cost, arrange to provide, erect and maintain necessary display boards/ banners etc. at selection points of project site giving such information as considered necessary for public awareness/ information/ safety as directed by the Engineer.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

66 CONTRACTOR'S RESPONSIBILITIES

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

The contractor shall promptly inform the Employer and the Engineer of any error, omission, fault, or any other defect in the design or drawings or specification for the works, which he discovers when reviewing the contract documents, or in the process of execution of the works. The Engineer will resolve the ambiguity or correct the error and will notify the contractor of the interpretation to be adopted.

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

67 PROVISIONAL SUM

“Provisional Sums” means a sum included in the Contract and so designated in the Bill of Quantities for the execution of any part of the Works or for the supply of goods, materials, Plant or services, or for contingencies, which sum may be used, in whole or in part, or not at all, on the instructions of the Engineer in Charge. The Contractor shall be entitled to only such amounts in respect of the Work, supply or contingencies to which such provisional sums relate as the Engineer in charge shall determine .. The Engineer in charge shall notify the Contractor of any determination made under this Sub-clause, with a copy to the Employer. The Contractor shall produce to the Engineer all quotations, invoices, vouchers and accounts or receipts in connection with expenditure in respect of provisional sums, except where work is valued in accordance with rates or prices set out in the Tender for re-imburement.

68 Electric and water connections, if needed, shall be arranged by the contractor himself at his own cost during execution. However, during trial run, testing & commissioning the same shall be paid by the concerned line agency.

Formatted: Font: Bold, Complex Script Font: Arial, 11 pt, Bold, English (U.K.)

69 Services

69.1 Underground and overhead services are likely to be met with during construction. These are to be protected against damage by the Contractor at his own cost.

69.2 The contractor shall be required to carry out removal / shifting of existing utilities as itemized in the BOQ. The contractor work program shall include this activity. The work shall be carried out under supervision of concerned

department. The supervision charges of the line agencies shall be paid by the contractor and shall be reimbursed on actual on submission of receipt.
69.3 Shifting of underground and overhead services other than itemized in the BOQ, but falling in the alignment of sewer line will have to be done by Contractor. The employer would provide full support to contractor in coordinating with line agencies; however no claim on account of delay in shifting of utilities by line department will be admissible.

Formatted: Font: 11 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: 11 pt

70 UNFORESEEABLE SUB-SURFACE CONDITIONS

The general Sub Surface condition in Ajmer is Rocky or Sandy. Contractor is advised to confirm the sub soil data of the area before quoting the bid price. If any change in strata is observed during construction and any treatment is required to improve the SBC then it shall be the responsibility of the bidder. No extra payment shall be made if SBC is to be improved below foundation of all units and buildings.

71 INSURANCE

71.1 Insurance for Works and Contractor's Equipment

The Contractor shall insure the Construction Documents, Plants, Materials and Works in the joint names of the Employer and the Contractor against all loss or damage. Such insurance shall be for a limit of not less than the full replacement cost (including profit) and shall also cover the costs of demolition and removal of debris. Such insurance shall be in such a manner that the Employer and the Contractor are covered from the first working date after the commencement date, until the date of issue of the Taking-Over Certificate for the Works. The Contractor shall extend such insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for the loss or damage occasioned by the Contractor in the course of any other operations.

The Contractor shall insure the Contractor's Equipment in the joint names of the Employer, the Contractor and Subcontractors, against all loss or damage. Such insurance shall be for a limit of not less than the full replacement value (including delivery to Site). Such insurance shall be in such a manner that each item of equipment is insured while it is being transported to the Site and throughout the period it is on or near the Site.

71.2 Insurance against Injury to Persons and Damage to Property

The Contractor shall insure against liability to third parties, in the joint names of the Employer, the Contractor for any loss, damage, death or bodily injury which may occur to any physical property or to any person which may arise out of the performance of the Contract and occurring before the issue of the Performance Certificate. Such insurance shall be for a limit of not less than the amount specified in the Appendix to Technical Proposal at Section 8.

71.3 Insurance for Workers

The Contractor shall effect and maintain insurance against losses and claims arising from the death or injury to any person employed by the

Contractor or any Subcontractor, in such a manner that the Employer and the Employer's Representative are indemnified under the policy of insurance. For a Subcontractor's employees, such insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

71.4 General Requirements for Insurances

Each insurance policy shall be consistent with the general terms agreed in writing prior to the Effective Date, and such agreement shall take precedence over the provisions of this Clause.

The Contractor shall, within the respective periods stated in the Appendix to Tender (calculated from the Commencement Date), submit to the Employer:

evidence that the insurances described in this Clause have been effected,

and

copies of the policies for the insurances described in Sub-Clauses 74.2 and 74.3.

When each premium has been paid, the Contractor shall submit copy receipts to the Employer. The Contractor shall also, when providing such evidence, policies and receipts to the Employer, notify the Employer's Representative of so doing.

The Contractor shall effect all insurances for which he is responsible with insurers and in terms approved by the Employer. Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify such loss or damage. Payments received from the insurers shall be used for the rectification of such loss or damage.

The Contractor (and, if appropriate, the Employer) shall comply with the conditions stipulated in each of the insurance policies. The Contractor shall make no material alteration to the term of any insurance without the prior approval of the Employer. If an insurer makes (or purports to make) any such alteration, the Contractor shall notify the Employer immediately. If the Contractor fails to effect and keep in force any of the insurances required under the Contract, or fails to provide satisfactory evidence, policies and receipts in accordance with this Sub-Clause, the Employer may, without prejudice to any other right or remedy, effect insurance for the coverage relevant to such default, and pay the premiums due. Such payments shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due, or to become due, to the Contractor.

Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Employer, under the other terms of the Contract or otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Employer accordingly.

72 COMMUNICATIONS

72.1 Wherever provision is made for the giving or issue of any notice, instruction, consent, approval, certificate or determination by any person, unless otherwise specified such communication shall be in writing and shall not be unreasonably withheld or delayed.

72.2 Wherever provision is made for a communication to be "written" or "in writing", this means any hand-written, type-written or printed communication, including the agreed systems of electronic transmission stated in the Appendix to Bid.

72.3 All certificates, notices or written orders to be given to the Contractor by the Employer or the Employer's Representative, and all notices to be given to the Employer or to the Employer's Representative by the Contractor, shall either be delivered by hand against written acknowledgement of receipt, or be sent by airmail or one of the agreed systems of electronic transmission. The addresses for the receipt of such communications shall be as stated in the Appendix to Tender.

Formatted: Font: 11 pt, Not Bold,
Complex Script Font: 11 pt

73 JOINT AND SEVERAL LIABILITY

73.1 If the Contractor is a joint venture (or consortium) of two or more firms, all such firms shall be jointly and severally liable to the Employer for the fulfillment of the terms of the Contract. Such firms shall designate one of them to act as the leader with authority to bind the joint venture (or consortium) and other member. The composition or the constitution of the joint venture (or consortium) shall not be altered without the prior consent of the Employer.

74 THE CONTRACTOR

74.1 GENERAL OBLIGATIONS

"The Contractor Contractor is required to check the design criteria and calculations (if any) included in the Section 5 Scope of Work & Technical Specification / Employer's Requirements, to confirm their correctness in its bid and to assume full responsibility for them."

The Works as completed by the Contractor shall be wholly in accordance with the Contract and fit for the purposes for which they are intended, as defined in the Contract. The Works shall include any work which is necessary to satisfy the Employer's Requirements, Contractor's Proposal and Schedules, or is implied by the Contract, or arises from any obligation of the Contractor, and all works not mentioned in the Contract but which may be inferred to be necessary for stability or completion for the safe, reliable and efficient operation of the Works.

The Contractor shall design, execute and complete the Works, including providing Construction Documents, within the Time for Completion, and shall remedy any defects within the Contract Period. The Contractor shall provide all superintendence, labour, Plant, Materials, Contractor's Equipment, Temporary Works and all other things, whether of a temporary or permanent nature, required in and for such design, execution, completion and remedying of defects.

Before commencing design, the Contractor shall satisfy himself regarding the Technical Specification / Employer's Requirements (including design criteria and calculations, if any) and any other items of reference. The Contractor shall give notice to the Employer's Representative of any error, fault or other defect in the Employer's Requirements or such items of reference. After receipt of such notice, the Employer's Representative shall notify the Contractor accordingly.

The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operations, of all methods of construction and of all the

Works, irrespective of any approval or consent by the Employer's Representative.

74.2 PERFORMANCE SECURITY

Deleted in its entirety.

74.3 CONTRACTOR'S REPRESENTATIVE

Unless the Contractor's Representative is named in the Contract, the Contractor shall, within 14 days of the Effective Date, submit to the Employer's Representative for consent the name and particulars of the person the Contractor proposes to appoint. The Contractor shall not revoke the appointment of the Contractor's Representative without the prior consent of the Employer's Representative.

The Contractor's Representative shall give his whole time to directing the preparation of the Construction Documents and the execution of the Works. Except as otherwise stated in the Contract, the Contractor's Representative shall receive (on behalf of the Contractor) all notices, instructions, consents, approvals, certificates, determinations and other communications under the Contract. Whenever the Contractor's Representative is to be absent from the Site, a suitable replacement person shall be appointed, and the Employer's Representative shall be notified accordingly.

The Contractor's Representative may delegate any of his powers, functions and authorities to any competent person, and may at any time revoke any such delegation. Any such delegation or revocation shall be in writing and shall not take effect until the Employer's Representative has received prior notice signed by the Contractor's Representative, specifying the powers, functions and authorities being delegated or revoked. The Contractor's Representative and such persons shall be fluent in the language for day-to-day communications.

74.4 CO-ORDINATION OF THE WORKS

"The Contractor shall be responsible for the co-ordination and proper execution of the Works, including co-ordination with other contractor Contractors and organizations to the extent specified in the Employer's Requirements:

any other contractors employed by the Employer and their workmen, the workmen of the Employer, and the workmen 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, which the Employer may require.

The Contractor shall obtain, co-ordinate and submit to the Employer's Representative for his information all details (including details of work to be carried out off the Site). The Contractor shall be responsible for the locations of their work or materials, in order to ensure that there is no conflict with the work of other contractors.

75 SITE DATA

The Contractor shall arrange/investigate all the data on hydrological and subsurface conditions at the Site, and studies on environmental impact. The Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have satisfied himself (so far as is practicable, taking account of cost and time) before submitting the Tender, as to the form and nature of the Site, including the sub-surface conditions, the hydrological and climatic

conditions, the extent and nature of the work and Materials necessary for the execution and completion of the Works, and the remedying of any defects, and the means of access to the Site and the accommodation he may require.

The Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and all other circumstances which may influence or affect the Tender.

76 SECURITY OF THE SITE

the Contractor shall be responsible for keeping unauthorized persons off the Site, and authorized persons shall be limited to the employees of the Contractor, employees of his subcontractors and persons authorised by the Employer or the Employer's Representative.

77 DESIGN

77.1 GENERAL 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. For each part of the Works, the prior consent of the Employer's Representative shall be obtained to the designer, if they are not named as such in the Contract. Nothing contained in the Contract shall create any contractual relationship or professional obligations between any designer and the Employer.

The contractor holds himself, his designers as having the experience and capability necessary for the design. The Contractor undertakes that the designers shall be available to attend discussions with the Employer's Representative at all reasonable times during the Contract Period.

77.2 CONSTRUCTION DOCUMENTS

The Contractor shall prepare Construction Documents in sufficient detail to satisfy all regulatory approvals, to provide suppliers and construction personnel sufficient instruction to execute the Works, and to describe the operation of the completed Works. The Employer's Representative shall have the right to review and inspect the preparation of Construction Documents, wherever they are being prepared.

Each of the Construction Documents shall, when considered ready for use, be submitted to the Employer's Representative for pre-construction review. In this Sub-Clause, "review period" means the period required by the Employer's Representative, which (unless otherwise stated in the Employer's Requirements) shall not exceed 21 days, calculated from the date on which the Employer's Representative receives a Construction Document and the Contractor's notice that it is considered ready, both for a pre-construction review in accordance with this Sub-Clause, and for use. If the Employer's Representative, within such review period, notifies the Contractor that such Construction Document fails (to the extent stated) to comply with the Employer's Requirements, it shall be rectified, resubmitted and reviewed 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 consent of the Employer's Representative shall have been obtained:

Formatted: Indent: Left: 0.5",
Hanging: 0.25", Space Before: 0 pt,
After: 0 pt

(a) construction shall not commence until the Contractor Contractor receives from the Employer's Representative approval of the Construction Documents relevant to the design and construction of such parts; provided always that if the Employer's Representative fails to give his ruling at the end of 28 days, despite the Contractor Contractor's written reminder at the end of the 21 days "review period", then the Contractor Contractor may proceed with the construction as though approval had been given;"

(b) construction shall be in accordance with such Construction Documents; and

(c) if the Contractor wishes to modify any design or document which has previously been submitted for such pre-construction review, the Contractor shall immediately notify the Employer's Representative, and shall subsequently submit revised documents to the Employer's Representative for pre-construction review.

If the Employer's Representative instructs that further Construction Documents are necessary for carrying out the Works, the Contractor shall upon receiving the Employer's Representative's instructions prepare such Construction Documents.

Errors, omissions, ambiguities, inconsistencies, inadequacies and other defects shall be rectified by the Contractor at his cost.

77.3 CONTRACTOR'S UNDERTAKING

The Contractor undertakes that, if legally and physically possible, the design, the Construction Documents, the execution and the completed Works will be in accordance with the following, in order of priority the law in the Country, and the documents forming the Contract, as altered or modified by Variations.

77.4 Technical Standards and Regulations

The design, the Construction Documents, the execution and the completed Works shall comply with the Country's national specifications, technical standards, building, construction and environmental regulations, regulations applicable to the product being produced from the Works, and the standards specified in the Employer's Requirements, applicable to the Contractor's Proposal and Schedules, or defined by law. References in the Contract to such specifications and other matters shall be understood to be references to the edition applicable on the Base Date, unless stated otherwise. If substantially changed or new applicable national specifications, technical standards or regulations come into force after the Base Date, the Contractor shall submit proposals for compliance to the Employer's Representative. In the event that the Employer's Representative determines that such proposals constitute a variation, he shall then initiate a Variation in accordance with Clause 12. In respect of technical specifications and standards, any national or international standards which promise to confer equal or better quality than the standards specified will also be acceptable."

77.5 AS-BUILT DRAWINGS

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, with cross references to

relevant specifications and data sheets. These records shall be kept on the Site and shall be used exclusively for the purposes of this Sub-Clause. Two copies shall be submitted to the Employer's Representative prior to the commencement of the Tests on Completion.

In addition, the Contractor shall prepare and submit to the Employer's Representative "as-built drawings" of the Works, showing all Works as executed. The drawings shall be prepared as the Works proceed, and shall be submitted to the Employer's Representative for his inspection. The Contractor shall obtain the consent of the Employer's Representative as to their size, the referencing system, and other pertinent details.

Prior to the issue of any Taking-Over Certificate, the Contractor shall submit to the Employer's Representative one microfiche copy, one full-size original copy and six printed copies of the relevant "as-built drawings", and any further Construction Documents specified in the Employer's Requirements. The Works shall not be considered to be completed for the purposes of taking-over under Sub-Clause 68.1 until such documents have been submitted to the Employer's Representative.

77.6 OPERATION AND MAINTENANCE MANUALS

Prior to commencement of the Tests on Completion, the Contractor shall prepare, and submit to the Employer's Representative, operation and maintenance manuals in accordance with the Employer's Requirements and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair the Works. The Works shall not be considered to be completed for the purposes of taking-over under Sub-Clause 68.1 until such operation and maintenance manuals have been submitted to the Employer's Representative.

77.7 ERROR BY CONTRACTOR

If errors are found in the Construction Documents, they and the Works shall be corrected at the Contractor's cost.

77.8 PATENT RIGHTS

The Contractor shall indemnify the Employer against all claims of infringement of any patent, registered design, copyright, trade mark or trade name, or other intellectual property right, if:

the claim or proceedings arise out of the design, construction, manufacture or use of the Works;

the infringement (or allegation of infringement) was not the result of part (or all) of the Works being used for a purpose other than that indicated by, or reasonably to be inferred from, the Contract;

the infringement (or allegation of infringement) was not the result of part (or all) of the Works being used in association or combination with any thing not supplied by the Contractor, unless such association or combination was disclosed to the Contractor prior to the Base Date or is stated in the Contract; and

the infringement (or allegation of infringement) was not the unavoidable result of the Contractor's compliance with the Employer's Requirements.

The Contractor shall be promptly notified of any claim under this Sub-Clause made against the Employer. The Contractor may, at his cost, conduct negotiations for the settlement of such claim, and any litigation or arbitration that may arise from it. The Employer or the Employer's

Representative shall not make any admission which might be prejudicial to the Contractor, unless the Contractor has failed to take over the conduct of the negotiations, litigation or arbitration within a reasonable time after having been so requested.

Except to the extent that the Employer agrees otherwise, the Contractor shall not make any admission which might be prejudicial to the Employer, until the Contractor has given the Employer such reasonable security as the Employer may require. The security shall be for an amount which is an assessment of the compensation, damages, charges and costs for which the Employer may become liable, and to which the indemnity under this Sub-Clause applies.

The Employer shall, at the request and cost of the Contractor, assist him in contesting any such claim or action, and shall be repaid all reasonable costs incurred.

78 PLANT, MATERIALS AND WORKMANSHIP

78.1 MANNER OF EXECUTION

All Plant and Materials to be supplied shall be manufactured, and all work to be done shall be executed, in the manner set out in the Contract. Where the manner of manufacture and execution is not set out in the Contract, the work shall be executed in a proper, workmanlike and careful manner, with properly equipped facilities and non-hazardous Materials, and in accordance with recognized good practice.

78.2 DELIVERY TO SITE

The Contractor shall be responsible for procurement, transport, receiving, unloading and safekeeping of all Plant, Materials, Contractor's Equipment and other things required for the completion of the Works.

78.3 INSPECTION

The Employer and the Employer's Representative shall be entitled, during manufacture, fabrication and preparation at any places where work is being carried out, to inspect, examine and test the materials and workmanship, and to check the progress of manufacture, of all plant and Materials to be supplied under the Contract. The Contractor shall give them full opportunity to inspect, examine, measure and test any work on Site or wherever carried out.

The Contractor shall give due notice to the Employer's Representative whenever such work is ready, before packaging, covering up or putting out of view. The Employer's Representative shall then either carry out the inspection, examination, measurement or testing without unreasonable delay, or notify the Contractor that it is considered unnecessary. If the Contractor fails to give such notice, he shall, when required by the Employer's Representative, uncover such work and thereafter reinstate and make good at his own cost.

78.4 TESTING

If the Contract provides for tests, other than the Tests after Completion, the Contractor shall provide all documents and other information necessary for testing and such assistance, labour, materials, electricity, fuel, stores,

apparatus and instruments, Laboratory facilities as are necessary to carry out such tests efficiently.

The Contractor shall agree, with the Employer's Representative, the time and place for the testing of any Plant and other parts of the Works as specified in the Contract. The Employer's Representative shall give the Contractor not less than 24 hours' notice of his intention to attend the tests. The Contractor shall provide sufficient suitably qualified and experienced staff to carry out the tests specified in the Contract.

If the Employer's Representative does not attend at the time and place agreed, or if the Contractor and the Employer's Representative agree that the Employer's Representative shall not attend, the Contractor may proceed with the tests, unless the Employer's Representative instructs the Contractor otherwise. Such tests shall be deemed to have been made in the Employer's Representative's presence.

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

78.5 REJECTION

If, as a result of inspection, examination or testing, the Employer's Representative decides that any Plant, Materials, design or workmanship is defective or otherwise not in accordance with the Contract, the Employer's Representative may reject such Plant, Materials, design or workmanship and shall notify the Contractor promptly, stating his reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.

If the Employer's Representative requires such Plant, Materials, design or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If such rejection and retesting cause the Employer to incur additional costs, such costs shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due, or to become due, to the Contractor.

78.6 OWNERSHIP OF PLANT AND MATERIALS

Each item of Plant and Materials shall become the property of the Employer at whichever is the earlier of the following times:

when it is delivered to Site;

when by virtue, the Contractor becomes entitled to payment of the value of the Plant and Materials.

79 COMMENCEMENT, DELAYS AND SUSPENSION

79.1 COMMENCEMENT OF WORKS

The Contractor shall commence the design and execution of the Works as soon as is reasonably possible after the receipt of a notice to this effect from the Employer's Representative. Such notice shall be issued within the time stated in the Appendix to Tender after the Effective Date. The

Contractor shall then proceed with the Works with due expedition and without delay, until completion.

“The Contractor Contractor shall commence the Operation and Maintenance services immediately after successful commissioning of the Treatment Plant and Taking over by the concerned line agency. The Works will be handed over back to the Contractor Contractor for the purpose of Operation and Maintenance.”

Formatted: Space Before: 6 pt, After: 6 pt

79.2 TIME FOR COMPLETION

Deleted in its entirety.

Formatted: Normal

80 EMPLOYER'S TAKING OVER

80.1 TAKING-OVER CERTIFICATE FOR WORKS

Except as stated in Sub-Clause 67.4, the Works shall be taken over by the Employer when they have been completed in accordance with the Contract (except as described in subparagraph (a) below), have passed the Performance guarantee on Completion and a Taking-Over Certificate for the Works has been issued, or has deemed to have been issued in accordance with this Sub-Clause. If the Works are divided into Sections, the Contractor shall be entitled to apply for a Taking-Over Certificate for each Section.

The Contractor may apply by notice to the Employer's Representative for a Taking-Over Certificate not earlier than 14 days before the Works or Section (as the case may be) will, in the Contractor's opinion, be complete and ready for taking over. The Employer's Representative shall, within 28 days after the receipt of the Contractor's application:

(c) 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 minor outstanding work that does not affect the use of the Works or Section for their intended purpose) including passing the Tests on Completion; or

Formatted: Justified, Indent: Left: 0.25", Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Tab after: 0.25" + Indent at: 0.25", Tabs: Not at 0.25"

(d) reject the application, giving his 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 such work before issuing a further notice under this Sub-Clause.

If the Employer's Representative 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.

80.2 Taking OverOver Certificate for Afterafter Operation and Maintenance

Formatted: Justified, Indent: Left: 0", First line: 0"

On completion of the Operation and Maintenance services of the ContractorContractor, as certified by the concerned line agency, the ContractorContractor will handover the Works and the Site back to the concerned line agency. The concerned line agency shall take over back the Works and the facilities and issue a certificate accordingly.

80.3 USE BY EMPLOYER

The Employer shall not use any part of the Works unless the Employer's Representative has issued a Taking-Over Certificate for such part. If a Taking-Over Certificate has been issued for any part of the Works (other than a Section), the compensation for delay in completion of the remainder of the Works (and of the Section of which it forms part) shall, for any period of delay after the date stated in such Taking-Over Certificate, be reduced in the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be); such values shall be determined by the Employer's Representative in accordance with the provisions of the contract. The provisions of this paragraph shall only apply to the rate of compensation for delay under Sub-Clause 2.0, and shall not affect the limit of such compensation.
If the Employer does use any part of the Works before the Taking-Over Certificate is issued:

(c) The part which is used shall be deemed to have been taken over at the date on which it is used.

(d) The Employer's Representative shall, when requested by the Contractor, issue a Taking-Over Certificate accordingly, and

(e) The Contractor shall cease to be liable for the care of such part from such date, when responsibility shall pass to the Employer.

After the Employer's Representative 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, and the Contractor shall carry out such Tests on Completion as soon as practicable, before the expiry of the Contact Period.

Formatted: Justified, Indent: First line: 0", Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.5" + Indent at: 0.5", Tabs: Not at 0.5"

80.4 INTERFERENCE WITH TESTS ON COMPLETION

If the Contractor is prevented from carrying out the Tests on Completion by a cause for which the Employer (or another contractor employed by the Employer) is responsible, the Employer shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed. The Employer's Representative 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 of the Contract Period. The Employer's Representative shall require the Tests on Completion to be carried out by 14 days' notice and in accordance with the relevant provisions of the Contract. If the Contractor incurs additional Cost as a result of this delay in carrying out the Tests on Completion, such Cost plus reasonable profit shall be determined by the Employer's Representative in accordance with the provisions of the contract and shall be added to the Contract Price.

81 TESTS AFTER COMPLETION

81.1 EMPLOYER'S OBLIGATIONS

If Tests after Completion are specified in the Contract, this Clause shall apply. Unless otherwise stated in Part II, the Employer shall provide the necessary labour, materials, electricity, fuel and water, and shall carry out the Tests after Completion in accordance with the manuals provided by the

Contractor under Sub-Clause 64.6 and such guidance as the Contractor may be required to give during the course of such Tests.

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, such 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 the Employer and the Contractor. Any effect on the results of the Tests after Completion which can reasonably be shown to be due to the prior use of the Works by the Employer shall be taken into account in assessing such results.

81.2 DELAYED TESTS

If the Contractor incurs additional Cost as a result of any unreasonable delay by the Employer in carrying out the Tests after Completion, such Cost plus reasonable profit shall be determined by the Employer's Representative in accordance with the provisions of the contract and shall be added to the Contract Price.

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

81.3 RETESTING

If the Works, or a Section, fail to pass the Tests after Completion, the Employer or the Contractor may require such failed Tests, and the Tests after Completion on any related work, to be repeated under the same terms and conditions. If such failure and retesting result from a default of the Contractor and cause the Employer to incur additional costs, such costs shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due, or to become due, to the Contractor.

81.4 FAILURE TO PASS TESTS AFTER COMPLETION

If the following conditions apply, namely:
the Works, or a Section, fail to pass any or all of the Tests after Completion,
the relevant sum payable as liquidated damages for such failure is stated (or its method of calculation is defined) in the Appendix to Tender, and the Contractor pays such relevant sum to the Employer during the Contract Period,

"Notwithstanding the above provisions, the owner Employer shall institute the necessary measures, activities, procurements, works, hiring of staff etc., for remediation of such portions of the already completed works which, in the exclusive opinion of the owner Employer require such remediation for achievement of the performance guarantee tests

Formatted: Indent: Left: 0.5", Hanging: 0.01", Space Before: 0 pt, After: 0 pt

Formatted: Indent: Left: 0.5", Space Before: 0 pt, After: 0 pt, Tabs: 0.5", List tab

satisfactorily, and recover the costs thereof. From the Contractor from any remaining payments due to him. and if such remaining payments are insufficient, then the Employer will institute revenue recovery procedures against the Contractor and his legal heirs and inheritors."

"If the net process power consumed is in excess of the net process power consumption during the performance guarantee test, compensation shall be levied by Employer, as given in Section 5 and Appendix to the tender.

Formatted: Indent: Left: 0.5",
Tabs: 0.5", List tab

If the Works, or a Section, fail to pass a Test after Completion and the Contractor in consequence proposes to make any adjustment or modification thereto, the Employer's Representative may instruct the Contractor that the Employer does not wish such adjustment or modification to be made until a time that is convenient to the Employer. In such event, the Contractor shall remain liable to carry out the adjustment or modification, and to satisfy such Test within a reasonable time of being notified to do so by the Employer's Representative. If, however, the Employer's Representative fails to give any such notice during the Contract Period, the Contractor shall be relieved of any such obligation and the Works or Section (as the case may be) shall be deemed to have passed such 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 failure to pass a Test after Completion, or to carry out any adjustments or modifications, then the Contractor shall be paid the additional Cost, plus reasonable profit, caused by such delay.

82 DEFECTS LIABILITY FOR WORKS

82.1 COMPLETION OF OUTSTANDING WORK AND REMEDYING DEFECTS

In order that the Construction Documents and the Works shall be in the condition required by the Contract (fair wear and tear expected) at, or as soon as practicable after, the expiry of the Contract Period, the Contractor shall :

complete any work which is outstanding on the date stated in a Taking-Over Certificate, as soon as practicable after such date, and

execute all work of amendment, reconstruction, and remedying defects or damage, as may be instructed by the Employer or the Employer's Representative during the Contract Period.

If any such defect appears or damage occurs, the Employer or the Employer's Representative shall promptly notify the Contractor in writing.

82.2 COST OF REMEDYING DEFECTS

All work referred to in Sub-Clause 70.1 (b) shall be executed by the Contractor at his own cost, if the necessity for such work is due to :

the design of the Works,

plant, Materials or workmanship not being in accordance with the Contract,
or

failure by the Contractor to comply with any of his other obligations.

If such necessity is due to any other cause, the Employer's Representative shall notify the Contractor accordingly and seek agreement to an adjustment to the Contract Price. In this event, Clause 12 shall apply to such work.

82.3 EXTENSION OF CONTRACT PERIOD

The Contract Period shall be extended by a period equal to the sum of any periods, after the Works are taken-over, during which the Works or any section or item of Plant cannot be used, for the purposes for which they are intended, by reason of a defect or damage;

When delivery of Plant and/or Materials, or erection of Plant, or installation of Materials, has been suspended, the Contractor's obligations under this Sub-clause shall not apply to any defects or damage occurring more than three years after the Plant and/or Materials would otherwise have been delivered, erected and taken-over.

82.4 FAILURE TO REMEDY DEFECTS

If the Contractor fails to remedy any defect or damage within a reasonable time, the Employer or the Employer's Representative may fix a date on or by which to remedy the defect or damage, and give the Contractor reasonable notice of such date.

If the Contractor fails to remedy the defect or damage by such date and the necessity for such work is due to a cause stated in Sub-Clause 70.2(a), (b), or (c), the Employer may (at his sole discretion):

carry out the work himself or by others, in a reasonable manner and at the Contractor's risk and cost, but the Contractor shall have no responsibility for such work: the costs properly incurred by the Employer in remedying the defect or damage shall be recoverable from the Contractor by the Employer;

require the Employer's Representative to determine and certify a reasonable reduction in the Contract Price; or

if the defect or damage is such that the Employer has been deprived of substantially the whole of the benefit of the Works or parts of the Works, terminate the Contract in respect of such parts of the Works as cannot be put to the intended use: the Employer shall then be entitled to recover all sums paid for such parts of the Works together with the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

82.5 REMOVAL OF DEFECTIVE WORK

If the defect or damage is such that it cannot be remedied expeditiously on the Site, the Contractor may, with the consent of the Employer's Representative or the Employer, remove from the Site for the purposes of repair any part of the Works which is defective or damaged.

82.6 FURTHER TESTS

If the remedying of any defect or damage is such that it may affect the performance of the Works, the Employer may require that tests on Completion or Tests after Completion, or both, be repeated to the extent necessary. The requirement shall be made by notice within 28 days after the defect or damage is remedied.

82.7 RIGHT OF ACCESS

Until the Performance Certificate has been issued, the Contractor shall have the right of access to all parts of the Works and to records of the working and performance of Works, except as may be inconsistent with any reasonable security restrictions by the organization responsible for operating the Works.

82.8 CONTRACTOR TO SEARCH

The Contractor shall, if required by the Employer's Representative, search for the cause of any defect, under the direction of the Employer's Representative. Unless the defect is one for which the Contractor is liable, the Cost of such search, plus reasonable profit, shall be added to the Contract Price.

82.9 PERFORMANCE CERTIFICATE

The Contract shall not be considered to be completed until the Performance Certificate has been signed by the Employer's Representative and delivered to the Contractor, stating the date on which the Contractor completed his obligations to the Employer's Representative's satisfaction. The Performance Certificate shall be given by the Employer's Representative by the date 28 days after the expiry of the Contract Period, or as soon after such date as the Contractor has provided all the Construction documents and completed and tested all the Works, including remedying any defects. Only the Performance Certificate shall be deemed to constitute approval of the Works.

82.10 UNFULFILLED OBLIGATIONS

After the Performance Certificate has been issued, the Contractor and the Employer 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 any such obligation, the Contract shall be deemed to remain in force.

83 Display Panels

The Contractor Contractor shall provide such charts and drawings as deemed appropriate to clearly illustrate the process, operating and maintenance requirements of the Plant and facilities provided under the Contract. Such charts and drawings shall be mounted on a panel, protected with a glass cover, and affixed on to the wall(s) of the pump house or plant, as the case may be, and shall include, as appropriate, the following:

- general arrangement drawings and process flow diagrams;
- wiring diagrams and detailed drawings of all electrical and mechanical installations;
- assembly drawings for electrical and mechanical equipment;
- charts indicating operations and maintenance details and schedules for electrical and mechanical equipment; and
- lists of commonly used spare parts and tools.

← - - - **Formatted:** Space Before: 6 pt, After: 6 pt

← - - - **Formatted:** Indent: Left: 0.5", No bullets or numbering, Tabs: 0.13", List tab + Not at 1.5"

84 Site Order Book and hindrance register

The Contractor Contractor shall maintain standard Site Order Books and hindrance register at his cost at the Site at all times during the execution of the Works for the use of the Engineer Employer's Representative and the Contractor Contractor. All the hindrance during execution of work will recorded by the contractor & should be duly approved by Engineer in charge. occurred All instructions issued by the Engineer Employer's Representatives to the Contractor Contractor shall be recorded in duplicate in the Site Order Book and shall be signed by the issuer and countersigned by the Contractor Contractor. After compliance with the instruction the Contractor Contractor shall record the same in the Site Order Book duly signed and countersigned by the Engineer Employer's Representative. Acceptance of any part of the Works executed by the Contractor Contractor shall be subject to verification with respect to compliance of respective instructions of the Engineer Employer's Representative through the Site Order Book. The Engineer Employer's Representative shall retain the original copy of the site orders, while the Contractor Contractor shall retain the duplicate ones.

Formatted: Font: 12 pt, Complex Script Font: Bold

Formatted: Font: 12 pt, Complex Script Font: Bold

85 EPIDEMICS

In the event of any outbreak of illness of an epidemic nature, the Contractor Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities, for the purpose of dealing and overcoming the same.

Formatted: Indent: First line: 0", Space Before: 0 pt, After: 0 pt

86 ALCOHOLIC LIQUORS OR DRUGS

The Contractor Contractor shall not, otherwise than in accordance with the statutes, ordinances and government regulations orders for the time being in force, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his Subcontractor Ccontractors, agents, staff or labour.

Formatted: Indent: First line: 0", Space Before: 0 pt, After: 0 pt

87 ARMS AND AMMUNITION

The Contractor Contractor shall not give, barter or otherwise dispose of to any person orf persons, any arms or ammunition of any kind or permit or suffer to the same as aforesaid.

88 General :-

Unless otherwise indicated elsewhere in the contract, the "Quality Assurance and Quality Control (QAQC) Manual" and "Standard Specifications of Civil Works" as issued by the PMU of RUIDP shall be followed. These documents of RUIDP are priced publication and shall form part of the contract. The Contractor shall purchase these documents from the office of the UIT Ajmer at the time of purchasing tender and a copy of the same shall be made available at the site.

Formatted: Indent: Hanging: 1.5", Space Before: 0 pt, After: 0 pt, Numbered + Level: 2 + Numbering Style: 1, 2, 3, ... + Start at: 88 + Alignment: Left + Aligned at: 1" + Tab after: 1.5" + Indent at: 1.5", Tabs: 0", List tab + Not at 0.25" + 1.5"

89 Site office & car for Engineers and other Supervisory Staff :-

The contractor shall have to provide, arrange, manage, maintain site office of 500 Sq. ft. well furnished with three tables, ten chairs, two steel almirah, one laptop computer and one desktop computer with printer and operator, sufficient numbers of display boards etc. fully furnished office to the satisfaction of the engineer-in-charge including electrical, water expenses etc. complete including well equipped laboratory for testing & execution of this item. Land/space required for the establishment of the site office and laboratory shall be arranged by the contractor also office and laboratory

Formatted: Indent: Hanging: 1.5", Numbered + Level: 2 + Numbering Style: 1, 2, 3, ... + Start at: 88 + Alignment: Left + Aligned at: 1" + Tab after: 1.5" + Indent at: 1.5", Tabs: 0", List tab + Not at 0.25" + 1.5"

shall be provided in same premises. The date of start shall be considered only when the contractor has actually rented/constructed the required premises, established the office and lab as per requirement. The above items shall remain valid only for 16 months maximum, no additional payment shall be made for whatsoever reason even if time extension is provided or date of completion is extended. This office and laboratory including furniture and all other equipments shall be property of contractor after completion of project, contractor shall have to maintain office till the completed project is handed over to line agency. In case of any delay in execution whatsoever it may be the contractor shall provide the required facilities at his own expenses for delayed period. If in any case above facility is not provided than Rs. 45000/- per month or part thereof will be deducted from the running account bills of the contractor.

The contractor shall also provide and maintain A.C. car (model after year 2009 and not less than 1100 cc) including an experienced driver, POL and toll charges etc. for use by the engineers as approved by the engineer-in-charge during execution of work for supervision purpose. The car should be available for minimum 12 Hrs. per day & shall be used in the state of Rajasthan for project works up to 3000 kms. Per month. This item shall remain valid only for 16 months maximum. In case of any delay whatsoever it may be, the contractor shall provide the required facility at his own cost till the completed project is handed over to the line agency. If in any case above facility is not provided than Rs. 45000/- per month or part thereof will be deducted from the running account bills of the contractor.

90 Confirmatory Survey of site by bidder-

After award of the work the bidder shall take up the work of Jungle Clearance immediately & shall carryout the confirmatory survey of site and Prepare contour plan at the interval of 3 mtrs. and submit a complete layout plan for execution with detail dimensions for approval from the Engineer-in-charge within 15 days from the stipulated date of start of work at his own cost.

← - - - - **Formatted:** Indent: Hanging: 1.5",
Numbered + Level: 2 + Numbering
Style: 1, 2, 3, ... + Start at: 88 +
Alignment: Left + Aligned at: 1" +
Tab after: 1.5" + Indent at: 1.5",
Tabs: 0", List tab + Not at 0.25" +
1.5"

← - - - - **Formatted:** Centered

GOVERNMENT OF RAJASTHAN

Formatted: Font: 24 pt, Small caps

URBAN IMPROVEMENT TRUST : AJMER

CONSTRUCTION OF G+3 HOUSES UNDER AFORDABLE
HOUSEING POLICY-2009 MODEL NO. 1

BID DOCUMENT FOR

Formatted: Centered

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units
(G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832
Ajmer.

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

SECTION V: DRAWINGS

1.1 Drawings:

The attached drawings, as summarized in the list below, shall be read in
conjunction with and shall form a part of the Tender documents (For Tendering
Purpose only.) -

List of Drawings

S.No.	Drawing Title
1	Cluster Layout plan
2	Ground Floor plan
3	First, Second & Third Floor Plan
4	Cross section Drawing
5	Foundation Details
6	Site Plan

GOVERNMENT OF RAJASTHAN

Formatted: Font: 24 pt, Small caps

Formatted: Centered

URBAN IMPROVEMENT TRUST : AJMER

Urban Improvement Trust, Ajmer

Signature of Contractor

CONSTRUCTION OF G+3 HOUSES UNDER AFFORDABLE
HOUSING POLICY-2009 MODEL NO. 1

BID DOCUMENT FOR

Formatted: Centered

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units
(G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832
Ajmer.

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

Section VI

SCOPE OF WORK & TECHNICAL SPECIFICATIONS

Formatted: Heading 2, Char,
Centered, Right: 0.03", Tabs: 3.54",
Left + 6.44", Right

2.1 Section VI. - Technical Specifications

Formatted: Font: Not Bold, Complex Script Font: Arial, English (U.K.)

A. STANDARD SPECIFICATIONS

Formatted: Font: 11 pt

Formatted: Font: 11 pt

Formatted: Font: 11 pt, Not Bold, Complex Script Font: Arial, English (U.K.)

1.1 Standard Specifications :

The “Standard Specifications (Civil Works)” issued by the Project Management Unit, RUIDP, set out the specifications that shall be followed for construction of general civil works under this project . Specifications for additional specialized items of civil works, and/or for mechanical and electrical works, shall be as set out in Part B, Particular Specifications, of this Section. In the event of any discrepancy between the provisions of the Standard Specifications and the Particular Specifications, then the provisions of the Particular Specifications will prevail.

**PART-B
PARTICULAR SPECIFICATIONS**

B. DESCRIPTION OF WORK:

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units (G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832 Ajmer.
(under percentage rate basis)

C. SCOPE OF WORK:

Formatted: Bullets and Numbering

This contract package No. 1 for construction of the above dwelling G+3 unit at the site specified above. The construction of the above G+3 unit will be as per general arrangement given in the attached drawings. Items related to the above are covered in the Specifications and Bill of Quantities. Broad scope of work includes various items as follows-

1 Building Works

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units (G+3) Houses under affordable Housing scheme at Lohagal khasra no. 832 Ajmer.

2. Sanitary works and internal water supply works :-.

a Sanitary and internal water supply works of the proposed civil structure

3. Electrical Works

a. Electrification of proposed Civil Structures

The work proposed has been surveyed, based on which a bill of quantities has been prepared as provided in the price schedule. The contractor is responsible for carrying out the work and his scope of work will cover the following.

Formatted: Indent: Hanging: 0.75", Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.25" + Tab after: 0.75" + Indent at: 0.75", Tabs: 0.5", List tab + Not at 0.75"

● Checking the ground levels from the reference level & checking the bearing capacity of the soil & submit the design & drawing of the foundation structure for approval to the engineer in charge.

Formatted: Bullets and Numbering

● The contractor is responsible for structural safety of the structure and stability and water tightness of the laid all sanitary lines.

- The contractor is responsible for the quality of the works in the entire construction works within this contract. He shall, therefore, have his own independent and adequate setup for ensuring the same as per clause 1.15 of standard specifications.
- The construction methodology and sequence of work for each activity should be submitted by the contractor at least 15 days prior to start of any construction activity.
- It is the duty of the contractor that he will approve the samples of the each material to be used before well in advance form the engineer in charge.
- All defective works are liable to be demolished, rebuilt and all defective materials shall be replaced by the contractor at his own cost.
- The site should be cleaned of all the surplus material and broomed to leave a clean surface at the end of the work.
- Submission of the as built drawings after completion of the work.
- Contractor will make arrangement of watch & ward of the constructed G+3 units for period of one year after defect liabilities period or handing over to any line agency whichever is earlier & take provision for such expenditure while quoting the percentage rate above / below over schedule items

PROJECT IMPLEMENTATION PLAN

The contractor to submit detailed Project Implementation Plan and get the same approved from the engineer with the object of completion of the work with in the prescribed period.

E. CIVIL WORKS

2.0 Excavation

All excavation work shall be carried out after obtaining necessary clearance from the Engineer. Prior to take up any excavation work the contractor shall first mark at site the extent of area to be excavated as per drawing for approval of the Engineer.

2.1 The foundation trenches shall be taken out to the exact width of the footing as shown on the drawing or as directed by the Engineer-in-charge.

2.2 The sides of the trench shall be kept vertical and bottom horizontal both transversely and longitudinally.

2.3 The bed of the trenches shall be made level and firm by watering and ramming. Any soft or defective spots that are found shall be filled with concrete of the same proportion as the foundation concrete or as may be directed by the Engineer-in-charge.

2.4 If the excavation is done to dimensions greater then those shown on the drawings or those required by the Engineer-in-charge, the excess depth shall be made good, at the cost of the contractor, with concrete or as may be directed by the Engineer-in-charge.

2.5 The trenches shall be inspected and passed by the Engineer-in-charge before concrete is placed.

2.6 Excavated materials shall not be placed within 1.5 meters of the edge of trench or half the depth of trench whichever is more.

2.7 All materials and labour required for fencing and protecting against risk of accidents due to open excavations shall be provided by the contractor at his cost.

2.7.1 Classification

All materials to be excavated shall be classified by Engineer, into one of the following classes and shall be paid for at the rate tendered for that particular class of material. No distinction shall be made whether the material is dry, moist or wet. The decision of Engineer regarding the classification of the material shall be final and binding on the Contractor.

All excavation will be classified under one of the following categories:

a) Ordinary Soil

These shall include all kinds of soils containing kankar, sand, silt, murum and/or shingle, gravel, clay, loam, peat, ash, shale, soil mixed with boulders, slag, chalk, slate, hard micaschist, laterite, highly weathered granite gneiss and all other materials which can generally be excavated by spade, pick axes, shovel etc. This shall also include rock boulders not longer than 1 metre in any direction and not more than 500 mm in any one of the other two directions. Cutting out Bituminous road surfaces and breaking out brick or stone masonry will each be measured under separate items in the Bill of Quantities.

Ordinary Rock

This includes all rock occurring in large continuous masses which cannot be removed except by pneumatic breaking equipment. Concrete work both reinforced and un reinforced to be dismantled will be measured under a separate item in the Bill of Quantities

2.8 Refilling excavated earth in foundation trenches & plinth:

2.8.1 The earth used for filling shall be free from salts, organic or other foreign matter. All clods shall be broken or removed.

2.9 Filling sides of trenches:

As soon as the work in foundations has been measured, the spaces around the foundation masonry in trenches shall be cleared of all debris, brickbats, mortar droppings etc **and filed with earth in layers not exceeding 15 cm., each layer being watered rammed and consolidated before the succeeding one is laid.**

2.10 Plinth filling:

The plinth shall be similarly filled with earth in layers not exceeding 15 cms. watered and consolidated when the filling reaches the finished level, the surface shall be flooded with water for at least 24 hours, allowed to dry and then rammed and consolidated. The finished level of the filling shall be kept to slope intended to be given to the floor.

2.11 Cement Mortar :

This shall be prepared by mixing cement and sand in specified proportions.

2.11.1 Mixing:

This mixing of mortar shall be done in mechanical mixer, or by hand mixing as ordered by the Engineer in charge.

(a) Mixing in mechanical mixer: Cement and sand in the specified proportions shall be mixed dry thoroughly in a mixer Water shall then be added gradually and wet mixing continued for at least one minute. Care shall be taken not to add more water than required which shall bring the mortar to the consistency of a stiff paste. Only the quantity of mortar, which can be used within 30 minutes or before initial setting time as found in site lab tests of its shall be prepared at a time.

2.11.2 General:

Mortar shall be used as soon as possible after mixing and before it has begun to set, and in any case within 30 minutes after the water is added for the dry mixture. Mortar unused for more than 30 minutes shall be rejected and removed from the site

3.0 Concrete

All concrete except lean concrete, shall be controlled concrete. The mechanical mixing only shall be carried out in such a way so as avoid any loss of water or cement. No hand mixed concrete will be allowed. It should be conveyed, placed in position and compacted by suitable type of mechanical vibrator, as rapidly as practicable but in no case the time of compaction after mixing shall increase 30 minutes. Standby concrete mixer and vibrator shall be available at site.

The exposed surface of concrete shall be kept continuously in a wet condition by ponding or covering with a layer of sackings, canvas, Hessian or similar materials and kept continuously wet for at last 14 days from the date of placing of concrete.

3.1 Cement concrete shall be prepared by mixing graded stone or brick ballast of gauge as specified with cement mortar in specified proportions.

The proportioning of sand shall be of its dry volume and in case of damp sand; allowances for bulkage shall be made.

3.2 **Mixing:** Mixing for cement concrete in mechanical mixer will be done in the manner as described under "cement mortar" No hand mixing of cement concrete will be allowed. The mixing shall be so timed in the specified proportion, that the concrete is placed in the required position within 30 minutes after adding water.

3.3 **Laying :** Concrete shall be laid gently (not thrown) in layers not exceeding 15 cms. Thickness and thoroughly compacted till a dense concrete is obtained. The layers of concrete shall be so placed that the bottom layer does not finally set before the top layers is placed. Where so specified compaction shall be done by the mechanical vibrators as per detailed specifications given under "R.C.C. work" Compaction shall be completed before the initial setting starts i.e. within 30 minutes of addition of water to the dry mixture.

3.4 **Curing :** After the concrete has begun to burden i.e. about 1 to 2 hours after its laying, it shall be protected from quick drying, with moist gunny bags and or any other material approved by the Engineer-in-charge. After 24 hours of laying concrete the surface shall be cured by flooding with water of minimum 2.5 cm. Depth or by covering with wet absorbent material. The curing shall be done for a minimum period of 10 days. Over the foundation concrete, the masonry work may be started after 48 hours of its laying, but the curing of cement concrete shall be continued along with the masonry work for a minimum period of 10 days, in case of cement concrete used as sub grade for flooring, the flooring may be commenced within 48 hours of the laying of sub grade and the curing continued along with the top layer of flooring for a minimum period of 10 days.

3.5 **Form work:** If centering and shuttering are required to be done for this work, it shall be done in accordance with the specifications for form work under reinforced concrete work.

3.6 **Mode of Measurement:** Unless otherwise specified the concrete shall be measured in cubic meters.

3.6.1 REINFORCED CEMENT CONCRETE-

3.6.2 GENERAL

The aggregates and cement shall be proportioned by weight only. The mixing shall always be carried out in a mechanically operated mixer in such a way so as to avoid any loss of water or cement. The drum of the mixer should be free from holes to avoid any loss of water or cement. No hand mixed concrete will be allowed. The concrete so prepared, shall be carefully conveyed, placed in position and compacted using suitable type of mechanical vibrator, as rapidly as practicable, but in no case the time required till compaction shall exceed 30 minutes after mixing. During concreting, standby concrete mixer and vibrator shall be kept available at site.

Ordinary Portland Cement (OPC) conforming to IS: 8112 (43-Grade) shall only be used. Cement manufactured in mini-cement plants shall not be used.

All reinforcement used shall be of cold twisted deformed bars or Thermo Mechanically Treated steel bars conforming to IS: 1786 latest revision with up-to-date amendments. All steel shall be procured from main/ primary producers, who make their own ingots/ billets. No re rolled steel shall be incorporated in the work. Also, the steel shall not be procured from the producers who make pencil ingots/ billets from scrap. The reinforcement bars shall have ISI mark and shall be clean and free from loose mill scales, rust and coating of oil or other coatings, which may destroy or reduce bond. Minimum size of reinforcement bars shall be of 8 mm.

Only steel shuttering shall be used. Shuttering shall be new or in a good condition without holes or dents and the Contractor shall get the same approval by the Engineer, before its use. The individual elements of shuttering shall correctly match with the required shape of structural member to ensure a gap-free shuttering. Suitable systems have to be provided for keeping the shuttering in place and in case of walls, maintaining the supports at an appropriate distance. While concreting, shuttering shall be kept in place by bolting.

The Engineer should predetermine the construction joints and these have to be executed with utmost care. Before commencing concreting for subsequent lifts/ panels, surface previously concreted member shall be thoroughly cleaned to remove all loose materials in contact with it. Honeycombing has to be avoided by suitably fixing of shuttering, preparation of surface of joints and proper use of vibrators.

The exposed surfaces of concrete shall be kept continuously in a wet condition by ponding or covering with a layer of sackings, canvas, Hessian or similar materials and kept continuously wet for at least 21 days from the date of placing of concrete.

To obtain a dense concrete and to reduce chances of honeycombing, appropriate admixture (approximately upto 2% of the cement by weight) approved by Engineer shall be used in concrete work. The quantity of the admixture to be used shall be as prescribed by the manufacturer and approved by the Engineer.

3.6.3 Testing of Raw Material

Materials and workmanship shall comply with the relevant specifications described in subsequent clauses as prescribed in RUIDP Standard Specifications (Civil Works).

3.6.4 Tests on Concrete

During the progress of construction sampling, preparation of test specimens, curing and testing of concrete cubes shall be conducted in accordance with

IS:1199 and IS:516, to determine whether the concrete being produced complies with the strength requirements as specified.

At least one slump test shall be carried out for every compressive strength test carried out or as directed by the Engineer in Charge. Six cubes of 15 cm size shall be made for each cubic meter or portion thereof or for each pour per grade of concrete. This number may be increased at the discretion of the Engineer. Six specimens shall preferably be prepared from different batches, three to be tested after 7 days and the remaining three to be tested after 28 days. The contractor shall provide at his own expense, all apparatus, labour and arrange for testing at a laboratory approved by the Engineer.

3.6.5 Acceptance of Concrete

The concrete tested in accordance with 'Testing of Concrete' clause above, shall meet the criteria for acceptance of concrete as per IS:456-2000. The strength of concrete shall be the average strength of three specimens tested at 28 days and conform to strength requirements for different grades of concrete. If 7 days tests show crushing strengths that are too low than required, corrective measures shall be taken at once, at the Engineers direction, without waiting for the results of the 28 days test.

3.6.6 Failure to meet Strength Requirements

In case where concrete tested fails to meet the test requirements, the Engineer shall have the right to require any one or all the following additional tests. The Contractor, at his own expense, shall carry out such tests. The Engineer shall be the final authority for interpreting the results and shall decide upon the acceptance or otherwise.

Curing and load testing of the concrete member concerned represented by the test, which failed.

1. Replacement of any such portions of the structure. No payment shall be made for the dismantling of the concrete, relevant formwork, or reinforcement. The Contractor at his own expenses shall make good embedded parts and/ or reinforcement that may get damaged during dismantling.
2. Extended curing of concrete represented by the specimen.
3. Collecting and testing of a core specimen from the hardened concrete. The location number and size of such specimen shall be taken as directed by the Engineer.
4. Any other test such as, ultrasonic and/ or rebound hammer test, etc. as decided by the Engineer.

Formatted: Bullets and Numbering

3.6.7 Check for Reinforcement and Concreting

All reinforcement shall be got checked and recorded prior to pouring of concrete, by a representative of the Engineer.

3.6.8 Minimum Requirement for all reinforced or plain concrete structures

- a) The minimum grade of concrete for water retaining structures shall be M25 having minimum cement content of 360 kg/m³ with maximum 20mm size downgraded coarse aggregates.
- b) Approved quality water proofing compound (chloride free) shall be added during concreting of all water retaining structure, in the proportion specified by the manufacturer/as per design mix or upto

Formatted: Bullets and Numbering

2% (percent) by weight of cement.

The minimum thickness required for different reinforced concrete members shall be as per the working structural drawings to be provided to him within 15 days of award of the work.

3.6.9 Construction Joints

As construction joints are weak in shear normally construction joints, if required, shall be provided in location where shear stress is minimum. However, construction joints should be avoided in the bottom slab of any water retaining structure. In the walls of the water retaining structures vertical construction joints should be avoided to the maximum possible extent. In the event the Contractor solely for his convenience proposes construction joints in the bottom slab and or vertical construction joints in the wall of the water retaining structures, then the Contractor shall provide approved PVC water-stop of 230mm width and 8 mm thick in all such joints. For the convenience of construction and to avoid segregation of concrete horizontal construction joints shall be provided in a planned way at a height not more than 2.0M in case of approved admixture, at his cost, is used by the contractor in the concrete to increasing the workability of the concrete without affecting the designed water cement ratio. In case such admixture is not used the height of such cast shall be restricted maximum up to 1.5M.

All such construction joints should be prepared properly like removing of all loose materials by wire brush and soaking with rich cement slurry mixed with approved water-proofing compound in prescribed ratio, before pouring next concrete. Next pour of concrete in any construction joints in water retaining structures should be within 24 hours of last pour.

3.7 Shuttering

Only steel shuttering shall be used and shuttering shall be new or in a good condition without holes or dents. It has to be approved by the Engineer in charge. The individual elements of shuttering shall be in the correct shape to ensure a gap free shuttering. Suitable system have to be provided for keeping the shuttering in place keeping the correct distance in case of walls.

3.8 Damp Proof Course:

3.8.1 Cement Concrete layer: This shall consist of cement concrete of specified proportions and thickness. Edges of damp proof course shall be straight,

even and vertical. Side shuttering shall consist of wooden form and shall be strong and properly fixed. Mix shall be of workable consistency and shall be rammed thoroughly to make a dense mass, when the sides are removed, the surface should come out smooth without any honeycombing.

3.8.2 Curing: Damp proof course shall be cured for at least seven days, after which it shall be allowed by dry.

3.8.3 Application of hot bitumen:

Where so directed, hot bitumen in specified quantity shall be applied over the dried up surface of cement concrete properly cleaned with brushes and finally with a piece of cloth soaked in kerosene oil. The bitumen shall be applied uniformly all over, so that no plain spaces are left anywhere.

3.8.4 Mode of Measurement: The damp proof course and bituminous painting shall be measured separately in square meters.

4. REINFORCED CEMENT CONCRETE WORK:

4.1 Material:

4.1.1 Water, Cement sand and Ballast: Same as under "Mortars" and "Concrete Work".

4.1.2 **Steel reinforcement** The steel used in reinforcement shall conform to Fe 415 grade. Preferably TMT bars shall be used. Reinforcing bars shall be bent cold correctly and accurately to the size and shape as shown on the detailed drawings or as directed by the Engineer-in-charge. Only bars of full length shall be used but where this cannot be done, overlapping of bars shall be done as directed by the Engineer-in-charge.

4.1.3 **Placing in position:** Bars shall be placed in position as shown in the drawing Bars shall be thoroughly cleared of rust, scales, grease, oil and any other foreign matter before placing them in position. The bars crossing one another shall be tied together at every intersection with steel wire 16 to 20 S.W.G. twisted tight

4.2 **General:**

4.2.1 **General:** Shuttering shall be of steel plates. The shuttering shall be supported on battens and beams and props of vertical ballies properly cross braced together so as so make the formwork rigid. In place of ballies props, brick pillars of adequate section built in mud mortar may be used. The form work shall be sufficiently strong and shall have camber so that it assures correct shape after deposition of the concrete and shall be able to resist forces caused by vibration of live load of man working over it and other incidental loads associated with it. The shuttering shall have smooth and even surface and its joints shall not permit leakage of cement grout. If at any stage of work during or after placing concrete in the structure, the form works bulges out beyond the required shape of the structure the concrete, shall be removed and work redone with fresh concrete and adequately rigid form work. Details of shuttering and centering shall be subject to the approved of the Engineer-in-charge. The completed form work shall be directed and approved by the Engineer-in-charge, before the reinforcement bars are placed in position.

4.2.2 **Propping or centering:** The props shall consist of ballies or brick masonry pillars laid in mud mortar. Ballies shall have 10 cm minimum diameter and shall be placed at 1 to 1.25 meters spacing and tied at every four feet interval.

4.2.3 The form work shall be so assembled, as to facilitate casing and removal without jarring the concrete.

4.2.4 Concreting/ Reinforced Concrete:

4.2.5 Concrete mix shall be of the grade specified in the Schedule of Quantities.

4.2.6 **Consistency** : The water cement ratio for the mix should be constant at its correct value, due allowance being made for the moisture content of coarse and fine aggregates Workability of the concrete should be checked at frequent intervals and in case additional water is required to attain the required workability the quantity of cement should be increased proportionately.

Slump test shall be used as guide and workability controlled by direct measurement of water, making allowance.

Following values of slumps are suggested for different types of construction.

<u>Type of construction</u>	<u>Slump in cm.</u>	
	<u>Max.</u>	<u>Min.</u>
<u>(i) RCC. Foundation well and footings</u>	<u>12.5</u>	<u>5</u>
<u>(ii) Slabs beam and walls</u>	<u>15</u>	<u>7.5</u>
<u>(iii) Columns beams and walls'</u>	<u>15</u>	<u>7.5</u>
<u>(iv) Pavements and mass concrete</u>	<u>7.5</u>	<u>2.5</u>

4.2.7 **Placing of concrete:** Concreting shall only be commenced after the Engineer has inspected the centering shuttering and reinforcement as placed, and passed the same. Shuttering shall be clean and free from all shavings; saw dust, pieces of wool or other foreign material and shall be wetted.

4.2.8 **Compaction:** Concrete shall be compacted into a dense mass immediately after placing by means of mechanical vibrators and no hand tamping will be allowed in any case.

Compaction shall be completed before the initial setting starts, i.e. within 30 minutes of addition of water to the dry mixture.

4.2.9 Curing Same as under "Cement Concrete"

4.3. Mode of measurement:

4.3.1 **R.C.C. Slabs and Columns:**

(a) Cement concrete: Shall be measured in cubic meters. No deduction shall be made for steel contents. The rate shall include supply, carriage of materials, tools and plants such as Mechanical mixers, Vibrators etc.

(b) Steel reinforcement shall be measured separately in weight and shall cover the wastage. The overlaps other than those shown in the drawing and approved by the Engineer-in-charge shall not be payable.

(c) Centering and shuttering: Centering and shuttering shall be paid extra in square meters.

(d) If the surface of the slab, beam etc not found in proper finish then the contractor will do the rendering & plaster in ratio 1 :3 at his own cost & The rate of shuttering shall include rendering or- plastering the ceiling with cement mortar 1:3.(1 Cement :3 sand)

4.3.2 RC.C. Lintels and beams

- (a) Cement concrete--paid as for slabs.
- (b) Steel reinforcement--same as for slabs.
- (c) The rate of RC.C. in lintels and beams shall include the cost of centering and shuttering and rendering or plastering the exposed surfaces with cement mortar 1 : 3.

5.0 WHITE WASHING WITH LIME:

5.1.1 Preparation of lime wash: Before new work is white washed, the surface shall thoroughly brushed free from mortar droppings and foreign matter.

5.1.2 Preparation of lime wash: The wash shall be prepared from fresh stone white lime. The lime shall be thoroughly slacked on the spot, mixed and stirred with sufficient water to make within cream. This shall be allowed to stand for a period of 24 hours and then shall be screened through a clean coarse cloth, 4 kgs. of gum dissolved in hot water shall be added to each cubic meter of the cream. In making the cream 5 liters of water shall be added to one Kg. of lime.

5.1.3 White Washing : The white washing shall be applied with moonj brushes to the specified number of coats. The operation for each coat shall consist of a stroke of the brush given from the top downwards, another from the bottom upwards over the first stroke, and similarly one stroke horizontally from the right and another from the left" before it dries Each coat shall be allowed to dry before the next one is applied. Further each coat shall be inspected and approved by the Engineer-in-charge before the subsequent coat is applied. No portion of the surface shall be left out initially to be patched up letter on. Three or more coats shall be applied till the surface presents a smooth and uniform finish through which the plaster does not show. The finished dry surface shall not show any sign of creaking and peeling nor shall it come off readily on the hand when rubbed. .

5.1.4 Protective measures: Doors, windows, floors etc. and such other parts of the building not to be white washed shall be protected from being splashed upon. Spiashings and dropping, if any, shall be removed by the contractor at his own cost and the surfaces cleaned. Damage if any to noting and fixture shall be recoverable from the contractors.

5.1.5 Mode of Measurement:

- (a) White washing shall be measured in square meters and shall include preparation of surface.
- (b) No deduction shall be made for ends of joints, beams, and post for openings not exceeding 0.5 sqm. each and no addition shall be made for reveals, joints softest, jambs, sill etc. of these openings.
- (c) In case of openings exceeding 0.5 sqm. But not exceeding 3 sqm. each in area, deduction shall be made for one face, only when both the face of the wall is treated with the same finish. In case the faces are treated with different finishes the deductions for opening shall be made from the finish on the side of frames of doors, windows etc. on which the width of reveal is less then that on the other side, no deduction shall be made for the opening from other side.
- (d) For opening exceeding 3 sqm. each in area deduction shall be made for both the faces of the opening, and jambs, soffits sill etc. shall be measured.

5.2 COLOUR WASHING:

5.2.1. Materials:

5.2.2. Colouring Pigments: Sine Vitriol (Neela Thotha) Yellow and Red Ochra (Ramraj and Hirmich) conforming to relevant Indian Standards shall be used for preparing colour wash of blue, yellow, red and pink shades, different other shades can also be obtained by their mixtures in proper ratio. lime Colours in varying shades are also available in market under sealed packets and approved make of these shall be used if specified by the Engineer.

5.2.3 General: The specification for white washing shall apply to this work also the difference being that the specified colour wash solution shall be obtained by adding tea necessary pigment to the white wash.

5.2.3 Preparation or Colour wash:

5.2.4. Sufficient quantity of colour wash enough for the complete job shall be prepared in one operation to avoid any difference in shade. A piece. or 0.1 sq. fit of the prepared surface shall be colour washed with prepared solution in full number of coast, and the shade so obtained shall be got approved by the Engineer, It shall be noted that small sample of colour appears lighter in shade than when the same shades are applied precisely to large surfaces. Any change in tint desired by the Engineer shall be carried out. Preparation of the colour wash with some of the most commonly used pigments shall be as follows

- (a)** With Yellow or Red Ochred : Solid lump, if any, in the powder shall be crushed to powder and solution in water prepared and then added to white wash sieving it through a coarse cloth mixed evenly and thoroughly to colour wash in small quantities, till the required shade is obtained.
- (b)** With blue Vitriol: Fresh crystals of copper sulphate (i.e. Blue Vitriol) shall be ground to fine powder and dissolved in small quantity of water. Sufficient quantity of solution enough to produce the colour wash of required shade shall be strained through a clean coarse cloth. The filtrate being mixed evenly and thoroughly to the white wash.
- (c)** Colour wash from other colouring pigments shall be prepared in accordance with the instructions of the manufacturers.

5.3 Priming Coats:

5.3.1 On new surfaces and old surfaces requiring!) change of colour two coats of white wash shall be supplied before the application of colour wash.

5.3.2 No priming coat shall be needed for old surfaces bearing the color, Jr of the same shade or a good white wash.

5.3.3 Mode of measurement:

5.3.4 The work of colour washing shall be measured in accordance with the mode of white washing.

5.3.5 The colour washing on new surfaces shall include two coats of white wash (priming Cost).

6.0 FAN CLAMPS:

6.1.1 Fan Clamps: Fan clamp to be fixed during the laying of R.C.C. slab. or on stone slabs shall be as shown in *drawing*. This shall be made of 12-mm. dia M.S. bar bent to shape with its end~ looked. The overall height of the clamp shall be made to suit the depth of the slab.

6.1.2 Fixing of clamps in slabs and beams: Holes for inserting the fan Clamps in the positions shown in the drawing or as instructed by. the Engineer-in-charge shall be made in the shuttering after the latter has been fixed in position. After steel reinforcement is tied, fan clamps shall be fixed with their loops truly vertical and at the correct depth from the under-side of the slab or beam and the plane of the loops shall be truly paralleled or at right angles to the lines of walls as directed by the Engineer-in-charge in the case of the latter. The hooked arms and the loop shall be tied to the reinforcement, either directly or through out pieces of M.S. bars with annealed steel wire 16 or 20 WG.

The clamp shall not be disturbed out of position during concreting nor shall they be bent out of shape when shuttering of slabs or beams is removed.

The exposed portion of loop of the clamp shall be given two or more coats of paint, including priming coat, of shade as ordered by the Engineer-in-charge

6.1.3 Measurements: Clamps shall be counted and, paid for

6.1.4 Rate : The rate per fan clamp shall include the cost of labour materials involved in the operations, described above.

6.2 Final Finishing

The Contractor will ensure that the entire structure along with all its installations is in a finished and in new and fully operative condition when handed over. He shall have repaired and remove all signs of damage that might have been done during the course of installation and fixing of equipment. He shall also see that all the exterior has been finished properly and the entire site is cleared of all extra construction material, debris, and excavation soil. This shall have to be done to the satisfaction of the Engineer.

6.2.1 Tools and equipment

The contractor has to provide all the tools and equipment required for the timely, efficient and professional implementation of the work as specified in the various sections of the contract. On demand he shall provide to the Engineer a detailed list of tools and equipment available. If in the opinion of the Engineer a detailed list of the tools and equipment available. If in the opinion of the Engineer the progress or the quality of the work cannot be guaranteed by the available quality and type of tools and equipment the contractor has to provide additional ones to the satisfaction of the Engineer. The contractor will always have leveling instrument on site.

F. SANITARY AND PLUMBING WORKS

1.0 General

1.1 Scope of Service

The scope of work comprises of, but not limited to supply, installation, commissioning and testing of water supply, sewerage and drainage, sanitary fixtures and fitting water-pumping system. The scope of work includes supply of all materials as per specifications and drawings, laying, fitting, fixing, installation and commissioning the same

All water supply and sanitary works shall be carried out by the Local Authorities and skilled workmen, experienced in the trade.

All works shall be completely concealed either within shafts or chases or in fills and drooped ceiling unless specifically shown in drawing or required otherwise.

All work shall be adequately protected, to the satisfaction of the Engineer, so that the whole work is free from damage throughout the period of construction up to the time handing over.

No work shall be covered without approval of the Engineer. The contractor shall be responsible for coordinating the works of other trades sufficiently ahead of time to avoid unnecessary holes-ups. Hangers, sleeves, recesses, etc. shall be left in time as the work proceeds whether or not these are shown in drawings.

All clams, screws, brackets, hangers and all miscellaneous steel work needed in the work needed in the work shall be fully galvanized.

Only specified brand of material will be used subject to the approval of the sample.

On completion of work the contractor shall submit to the Engineer one original and two Copies of as built drawings.

Before the work is handed over the contractor shall clean all fixtures removing all plaster, stickers, rust stains and other foreign matter of discoloration of fixtures. Leaving every part in acceptable condition and ready for uses, to the satisfaction of the Engineer.

All sanitary ware and fitting shall conform to I.S. standards. The contractor shall submit samples of all fitting and fixtures proposed to be used to the Engineer for his approval. The approved samples shall remain with the Engineer till the completion of the work.

All workmanship shall conform to Indian standard codes of practice. The fixing and finished shall be neat, true to level and plumb. Manufacturer's instructions shall be neat, true to

Formatted: Centered

level and plumb. Manufacturer's instructions shall be followed closely regarding installation and commissioning.

All fixtures shall be protected throughout the progress of the work from damage. Special care finishing shall be neat, true to level and plumb. Manufacturer's instructions shall be followed closely regarding installation and commissioning

All fixtures shall be protected throughout the progress of the work from damage. Special care shall be taken to prevent damage of fitting. Tool marks on exposed fixtures shall not to be accepted. Protective paper on fixtures shall be removed with hot water only at the final completion of work.

All the water supply, drainages and sanitary works shall be carried out strictly as per specifications, ISI codes and National Building code with amendments up to date.

MATERIALS FOR CONSTRUCTION OF CIVIL WORK

1.2 Scope

Materials to be used in the work shall conform to the specifications mentioned on the drawings, the requirements laid down in this section and specifications for relevant items of work covered under these specifications. if any material, not covered in these specifications, is required to be used in the work, it shall conform to relevant indian standards, if there are any, or to the requirements specified by the engineer.

1.3 Sources of Material

The Contractor shall notify the Engineer of his proposed sources of materials prior to delivery. If it is found after trial that sources of supply previously approved do not produce uniform and satisfactory products, or if the product from any other source proves unacceptable at any time, the Contractor shall furnish acceptable material from other sources at his own expense.

1.4 Bricks

Burnt clay bricks shall conform to the requirement of IS: 1077, *except that the minimum compressive strength when tested flat shall not be less than 8.4 MPa for individual bricks and 10.5 MPa for average of 5 specimens.* They shall be free from cracks and flaws and nodules of free lime. The brick shall have smooth rectangular faces with sharp corners and emit a clear ringing sound when struck. The size may be according to local practice with a tolerance of ± 5 per cent.

1.5 Stones

Stones shall be of the type specified. It shall be hard, sound, free from cracks, decay and weathering and shall be freshly quarried from an approved quarry. Stone with round surface shall not be used. The stones, when immersed in water for 24 hours, shall not absorb water by more than 5 per cent of their dry weight when tested in accordance with IS: 1124. The length of stones shall not exceed 3 times its height nor shall they be less than twice its height plus one joint. No stone shall be less in width than the height and width on the base shall not be greater than three-fourth of the thickness of the wall nor less than 150 mm.

1.6 Cement

Cement to be used in the works shall be any of the following types with the prior approval of the Engineer:

Ordinary Portland Cement, 33 Grade, conforming to IS: 269.

Rapid Hardening Portland Cement, conforming to IS: 8041.

Ordinary Portland Cement, 43 Grade, conforming to IS: 8112.

Formatted: No underline

Formatted: No underline

Formatted: Justified, Space Before: 0 pt

Formatted: Font: 8 pt, No underline

Formatted: Font: 8 pt, No underline

Ordinary Portland Cement, 53 Grade, conforming to IS: 12269.
Sulphate Resistant Portland Cement, conforming to IS: 12230.

Cement conforming to IS: 269 shall be used only after ensuring that the minimum required design strength can be achieved without exceeding the maximum permissible cement content of 540 kg/cum. of concrete. Cement conforming to IS: 8112 and IS: 12269 may be used provided the minimum cement content mentioned elsewhere from durability considerations is not reduced. From strength considerations, these cements shall be used with a certain caution as high early strengths of cement in the 1 to 28-day range can be achieved by finer grinding and higher constituent ratio of C3S/C2S, where C3S is Tricalcium Silicate and C2S is Dicalcium Silicate. In such cements, the further growth of strength beyond say 4 weeks may be much lower than that traditionally expected. Therefore, further strength tests shall be carried out for 56 and 90 days to fine tune the mix design from strength considerations.

Cement conforming to IS: 12330 shall be used when sodium sulphate and magnesium sulphate are present in large enough concentration to be aggressive to concrete. The recommended threshold values as per IS: 456 are sulphate concentration in excess of 0.2 percent in soil substrata or 300 ppm (0.03 percent) in ground water. Tests to confirm actual values of sulphate concentration are essential when the structure is located near the sea coast, chemical factories, and agricultural land using chemical fertilizers and sites where there are effluent discharges or where soluble sulphate bearing ground water level is high. Cement conforming to IS: 12330 shall be carefully selected from strength considerations to ensure that the minimum required design strength can be achieved without exceeding the maximum permissible cement content of 540 kg/cum. of concrete.

Cement conforming to IS: 8041 shall be used only for precast concrete products after specific approval of the Engineer.

Total chloride content in cement shall in no case exceed 0.05 percent by mass of cement also, total sulphur content calculated as sulphuric anhydride (SO3) shall in no case exceed 2.5 percent and 3.0 percent when tri-calcium aluminate percent by mass is upto 5 or greater than 5 respectively.

1.7 Coarse Aggregates

For plain and reinforced cement concrete (PCC and RCC) or prestressed concrete (PSC) works, coarse aggregate shall consist of clean, hard, strong, dense, non-porous and durable pieces of crushed stone, crushed gravel, natural gravel or a suitable combination thereof or other approved inert material. They shall not consist pieces of disintegrated stones, soft, flaky, elongated particles, salt, alkali, vegetable matter or other deleterious materials in such quantities as to reduce the strength and durability of the concrete, or to attack the steel reinforcement. Coarse aggregate having positive alkali silica reaction shall not be used. All coarse aggregates shall conform to IS: 383 and tests for conformity shall be carried out as per IS: 2386 Parts I to VIII.

The Contractor shall submit for the approval of the Engineer, the entire information indicated in Appendix A of IS: 383. Maximum nominal size of coarse aggregate for various structural components in PCC, RCC or PSC, shall conform to Chapter 9. The maximum value for flakiness index for coarse aggregate shall not exceed 35 percent. The coarse aggregate shall satisfy the following requirements of grading:

IS Sieve Size	Percent by Weight Passing the Sieve		
	40 mm	20 mm	12.5 mm
63 mm	100	=	=
40 mm	95-100	100	=
20 mm	30-70	95-100	100
12.5 mm	=	=	90-100
10 mm	10-35	25-55	40-85

Formatted Table

IS Sieve Size	Percent by Weight Passing the Sieve		
	40 mm	20 mm	12.5 mm
4.75 mm	0-5	0-10	0-10

Formatted Table

1.8 Sand/Fine Aggregates

For masonry work, sand shall conform to the requirements of IS: 2116.

For construction of above works only BANAS RIVER SAND will be permitted.

For plain and reinforced cement concrete (pcc and rcc) or prestressed concrete (psc) works, fine aggregate shall consist of clean, hard, strong and durable pieces of crushed stone, crushed gravel, or a suitable combination of natural sand, crushed stone or gravel. they shall not contain dust, lumps, soft or flaky, materials, mica or other deleterious materials in such quantities as to reduce the strength and durability of the concrete, or to attack the embedded steel. motorised sand washing machines should be used to remove impurities from sand. fine aggregate having positive alkali-silica reaction shall not be used. all fine aggregate shall conform to is: 383 and test for conformity shall be carried out as per is: 2386 (part i to viii). the contractor shall submit to the engineer the entire information indicated in appendix a of is: 383. the fineness modules of fine aggregate shall neither be less than 2.0 nor greater than 3.5. sand/fine aggregate for structural concrete shall conform to the following grading requirements:

IS Sieve Size	Percent by Weight Passing the Sieve		
	Zone I	Zone II	Zone III
10 mm	100	100	100
4.75 mm	90-100	90-100	90-100
2.36 mm	60-95	75-100	85-100
1.18 mm	30-70	55-90	75-100
600 micron	15-34	35-59	60-79
300 micron	5-20	8-10	12-40
150 micron	0-10	0-10	0-10

1.9 Broken Brick (Burnt Clay) Fine aggregate

Broken Brick (Burnt Clay) Fine Aggregate, also known as Surkhi, shall be made by grinding well burnt (but not under or over burnt) broken bricks as specified in IS: 3068-1986. It shall not contain any harmful impurities, such as iron, pyrites, salts, coal, mica, shale or similar laminated or other materials in such form of quantity as to adversely affect hardening, strength, durability or appearance of the mortar. The maximum quantities of clay, fine silt, fine dust and organic impurities in surkhi (all taken together) shall not exceed five percent by weight. The particle size grading of surkhi for used in lime mortars shall be within the limits specified in Table below:

IS Sieve Designation	Percentage passing (by wt)
4.75 mm	100
2.36 mm	90-100
1.18 mm	70-100
600 microns	40-100

<u>IS Sieve Designation</u>	<u>Percentage passing (by wt)</u>
<u>300 microns</u>	<u>5-70</u>
<u>150 microns</u>	<u>0-15</u>

1.10 Steel

Reinforcement / Untensioned Steel

For plain and reinforced cement concrete (PCC and RCC) or prestressed concrete (PSC) works, the reinforcement / untensioned steel as the case may be shall consist of the following grades of reinforcing bars:

<u>Grade Designation</u>	<u>Bar Type conforming to governing IS Specification</u>	<u>Characteristic Strength fy MPa</u>	<u>Elastic Modulus GPa</u>
<u>S 240</u>	<u>IS: 432 Part I Mild Steel Bar</u>	<u>240</u>	<u>200</u>
<u>S 415</u>	<u>IS: 1786 High Yield Strength Deformed Bars</u>	<u>415</u>	<u>200</u>

Other grades of bars conforming to IS: 432 and IS: 1786 shall not be permitted.

All steel shall be procured from original producers, no re-rolled steel shall be incorporated in the work. Only new steel shall be delivered to the site. Every bar shall be inspected before assembling on the work and defective, brittle or burnt bar shall be discarded. Cracked ends of bars shall be discarded.

1.11 Structural Steel

Unless otherwise permitted herein, all structural steel shall before fabrication comply with the requirement of the following Indian Standards:

<u>IS: 226</u>	<u>Structural Steel (Standard Quality)</u>
<u>IS: 961</u>	<u>Structural Steel (High Tensile)</u>
<u>IS: 2062</u>	<u>Weldable Structural Steel</u>
<u>IS: 8500</u>	<u>Weldable Structural Steel (medium & high strength qualities)</u>
<u>IS: 1148</u>	<u>Hot rolled rivet bars (upto 40mm dia) for structural purposes</u>
<u>IS: 1149</u>	<u>High tensile rivet bars for structural purposes</u>
<u>IS: 1161</u>	<u>Steel tubes for structural purposes</u>
<u>IS: 4923</u>	<u>Hollow Steel sections for structural use</u>
<u>IS: 11587</u>	<u>Structural weather resistant steel</u>
<u>IS: 808</u>	<u>Specifications for Rolled Steel Beam, Channel and Angle Sections</u>
<u>IS: 1239</u>	<u>Mild Steel Tubes</u>
<u>IS: 1730</u>	<u>Dimension for Steel Plate, sheet and strip for structural and general engineering purposes</u>
<u>IS: 1731</u>	<u>Dimension for Steel flats for structural and general engineering purposes</u>
<u>IS: 1732</u>	<u>Dimension for round and square steel bars for structural and general engineering purposes</u>
<u>IS: 1852</u>	<u>Rolling and cutting tolerances for hot rolled steel products</u>

The use of structural steel not covered by the above standards may be permitted with the specific approval of the authority. Refer to Section 1900 for further details.

1.12 Water

Water used for mixing and curing shall be clean and free from injurious amounts of oils, acids, alkalis, salts, sugar, organic materials or

other substances that may be deleterious to concrete or steel. potable water is generally considered satisfactory for mixing concrete. mixing and curing with sea water shall not be permitted. as a guide, the following concentrations represent the maximum permissible values: to neutralise 200 ml sample of water, using phenolphthalein as an indicator, it should not require more than 2 ml of 0.1 normal naoh. To neutralise 200 ml sample of water, using methyl orange as an indicator, it should not require more than 10 ml of 0.1 normal HCl. The permissible limits for solids shall be as follows when tested in accordance with IS: 3025:

<u>1.</u>	<u>Organic</u>	<u>200 mg/lit</u>
<u>2.</u>	<u>Inorganic</u>	<u>3000 mg/lit</u>
<u>3.</u>	<u>Sulphates (SO₄)</u>	<u>500 mg/lit</u>
<u>4.</u>	<u>Chlorides (Cl)</u>	<u>500 mg/lit *</u>
<u>5.</u>	<u>Suspended matter</u>	<u>2000 mg/lit</u>

* In case of structures of lengths 30m and below, the permissible limit of chlorides may be increased upto 1000 mg/lit. All samples of water (including potable water) shall be tested and suitable measures may be where necessary to ensure conformity of the water to the requirements states herein.

4. The pH value shall not be less than 6.

1.13 Timber

The timber used for structural purposes shall conform to IS: 883.

1.14 Concrete Admixtures

General

Admixtures are materials added to the concrete before or during mixing with a view to modify one or more of the properties of concrete in the plastic or hardened state.

Concrete admixtures are proprietary items of manufacture and shall be obtained only from established manufacturers with proven track record, quality assurance and full fledged laboratory facilities for the manufacture and testing of concrete.

The Contractor shall provide the following information concerning each admixture after obtaining the same from the manufacturer:

Normal dosage and detrimental effects, it any, of under dosage and over dosage.

The chemical names of the main ingredients in the admixtures.

The chloride content, if any, expressed as a percentage by weight of the admixture.

Values of dry material content, ash content and relative density of the admixture which can be used for Uniformity Tests.

Whether or not the admixture leads to the entertainment of air when used as per the manufacturer's recommended dosage and it so to what extent.

Where two or more admixtures are proposed to be used in any one mix, confirmation as to their compatibility.

There would be no increase in risk of corrosion of the reinforcement or other embedments as a result of using the admixture.

Formatted: Justified, Indent: Left: 0", First line: 0", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Tab after: 0" + Indent at: 0.25"

Formatted: Justified, Indent: Left: 0", First line: 0", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Tab after: 0" + Indent at: 0.25"

Formatted: Justified, Indent: Left: 0", First line: 0", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Tab after: 0" + Indent at: 0.25"

Formatted: Justified, Indent: Left: 0", First line: 0", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Tab after: 0" + Indent at: 0.25"

Formatted: Justified, Indent: Left: 0", First line: 0", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 1 + Alignment: Left + Aligned at: 0" + Tab after: 0" + Indent at: 0.25"

Formatted: Justified, Indent: Left: 0.75", Numbered + Level: 1 + Numbering Style: 1, 2, 3, ... + Start at: 4 + Alignment: Left + Aligned at: 0.7" + Tab after: 0" + Indent at: 0.95"

Physical and Chemical Requirements

Admixtures shall conform to the requirements of IS: 9103. In addition, the following conditions shall be satisfied:

“Plasticisers” and “Super - Plasticisers” shall meet the requirements indicated for “Water reducing Admixture”.

Except where resistance to freezing and thawing and to disruptive action of deicing salts is necessary, the air content of freshly mixed concrete in accordance with the pressure method given in IS: 1199 shall not be more than 2 per cent higher than that of the corresponding control mix and in any case not more than 3 per cent of the test mix.

The chloride content of the admixture shall not exceed 0.2 per cent when tested in accordance with IS: 6925. In addition, the maximum permissible limit of chloride content of all the constituents as indicated in Chapter 9 shall also be observed.

Uniformity tests on the admixtures are essential to compare qualitatively the composition of different samples taken from batch to batch or from the same batch at different times.

The tests that shall be performed along with permissible variations in the same are indicated below:

Dry Material Content: to be within 3 per cent and 5 per cent of liquid and solid admixtures respectively of the value stated by the manufacturer.

Ash content: to be within 1 per cent of the value stated by the manufacturer.

Relative density (for liquid admixtures): to be within 2 percent of the value stated by the manufacturer.

All tests relating to the concretes admixtures shall be conducted periodically at an independent laboratory and compared with the data given by the manufacturer.

Reinforced Concrete Pipes

Reinforced concrete pipes for highway structures shall be of NP4 type conforming to the requirements of IS: 458. For other items, it shall be NP3 type unless otherwise shown on the Drawing, conforming to the requirements of IS: 458.

2.0 Storage of Materials

2.1 General

All materials may be stored at proper places so as to prevent their deterioration or intrusion by foreign matter and to ensure their satisfactory quality and fitness for the work. The storage space must also permit easy inspection, removal and restorage of the materials. All such materials even though stored in approved godowns /places, must be subjected to acceptance test prior to their immediate use.

2.2 Brick

Bricks shall not be dumped at site. They shall be stacked in regular tiers as they are unloaded, to minimize breakage and defacement. The supply of bricks shall be available at site at any time. Bricks selected for use in different situations shall be stacked separately.

2.3 Aggregates

Aggregate stockpiles may be made on ground that is denuded of vegetation, is hard and well drained. If necessary, the ground shall be covered with 50 mm plank.

Coarse aggregates, unless otherwise agreed by the Engineer in writing, shall be delivered to the site in separate sizes (2 sizes when nominal size is 25 mm or less and 3 sizes when the nominal size is 32 mm or more). Aggregates placed directly on the ground shall not be removed from the stockpile within 30 cm of the ground until the final cleaning up of the work, and then only the clean aggregate will be permitted to be used.

In the case of fine aggregates, these shall be deposited at the mixing site not less than 8 hours before use and shall have been tested and approved by the Engineer.

Broken Brick (Burnt Clay) Fine Aggregate (Surkhi) shall be stacked on a hard surface or platform so as to prevent the admixture of clay, dust, vegetation and other foreign matter. It shall be also protected from rain and dampness and kept under adequate covering.

2.4 Cement

Cement shall be transported, handled and stored on the site in such a manner as to avoid deterioration or contamination. Cement shall be stored above ground level in perfectly dry and water-tight sheds and shall be stacked not more than eight bags high. Wherever bulk storage containers are used their capacity should be sufficient to cater to the requirement at site and should be cleaned at least once every 3 to 4 months.

Each consignment shall be stored separately so that, it may be readily identified and inspected and cement shall be used in the sequence in which it is delivered at site. Any consignment or part of a consignment of cement which had deteriorated in any way, during storage, shall not be used in the works and shall be removed from the site by the Contractor without charge to the Employer.

The Contractor shall prepare and maintain proper records on site in respect of delivery, handling, storage and use of cement and these records shall be available for inspection by the Engineer at all times.

The Contractor shall make a monthly return to the Engineer on the date corresponding to the interim certificate date, showing the quantities of cement received and issued during the month and in stock at the end of the month.

2.5 Reinforcement / Untensioned Steel

The reinforcement bars, when delivered on the job, shall be stored above the surface of the ground upon platforms, skids, or other supports, and shall be protected from mechanical injury and from deterioration by exposure.

2.6 Water

Water shall be stored in containers / tanks covered at top and cleaned at regular intervals in order to prevent intrusion by foreign matter or growth of organic matter. Water from shallow, muddy or marshy surface shall not be permitted. The intake pipe shall be enclosed to exclude silt, mud, grass and other solid materials and there shall be a minimum depth of 0.60 m of water below the intake at all times.

2.7 Tests and Standard of Acceptance

All materials, even though stored in an approved manner shall be subjected to an acceptance test prior to their immediate use. Independent testing or cement for every consignment shall be done by the Contractor at site in the laboratory approved by the Engineer before use. Any cement with lower quality than those shown in manufacturer's certificate shall be debarred from use. In case of imported cement, the same series of tests shall be carried out before acceptance.

2.8 Testing and Approval of Material

The Contractor shall furnish test certificates from the manufacturer/supplier of materials along with each batch of material(s) delivered to site.

The Contractor shall set up a field laboratory with necessary equipment for testing of all materials, finished products used in the construction as per requirements of conditions of contract and the relevant Specifications. The testing of all the materials shall be carried out by the Engineer or his representative for which the Contractor shall make all the necessary arrangements and bear the entire cost. Tests which cannot be carried out in the field laboratory have to be got done at the Contractor's cost at any recognized laboratory/testing establishments approved by the Engineer.

2.9 Sampling of Materials

Samples provided to the Engineer or his representative for their retention are to be in labeled boxes suitable for storage.

Samples required for approval and testing must be supplied well in advance by at least 48 hours or minimum period required for carrying out relevant tests to allow for testing and approval. Delay to works arising from the late submission of samples will not be acceptable as a reason for delay in the completion of the works. If materials are brought from abroad, the cost of sampling/testing whether in India or abroad shall be borne by the Contractor.

2.10 Rejection of Materials not Conforming to the Specifications

Any stack or batch of material(s) of which sample(s) does not conform to the prescribed tests and quality shall be rejected by the Engineer or his representative and such materials shall be removed from site by the Contractor at his own cost. Such rejected materials shall not be made acceptable by any modifications.

2.11 Testing and Approval of Plant and Equipment

All Plants and equipment used for preparing, testing and production of materials for incorporation into the permanent works shall be in accordance with manufacturer's Specifications and shall be got approved by the Engineer before use.

3.0 Brick Masonry

3.1 description

This work shall consist of construction of structures with bricks jointed together by cement mortar in accordance with the details shown on the drawings or as approved by the engineer.

3.2 applicable codes

The following Indian standard codes, unless otherwise specified herein, shall be applicable. in all cases, the latest revision of the codes shall be referred to:

<u>is - 1077</u>	<u>specifications for common burnt clay building bricks</u>
<u>is - 1200</u>	<u>measurements for building works</u>
<u>is - 1725</u>	<u>specifications for solid cement blocks used in general building construction</u>
<u>is - 1905</u>	<u>code of practice for structural safety of buildings: masonry walls.</u>
<u>is - 2116</u>	<u>sand for masonry mortars</u>
<u>is - 2180</u>	<u>specification for heavy duty burnt clay building bricks</u>
<u>is - 2185</u>	<u>specification for concrete masonry units: hollow and solid concrete blocks</u>
<u>is - 2212</u>	<u>code of practice for brick work</u>
<u>is - 2222</u>	<u>specification for burnt clay perforated building bricks</u>
<u>is - 2691</u>	<u>specification for burnt clay facing bricks</u>
<u>is - 3115</u>	<u>specification for lime based blocks</u>
<u>is - 3414</u>	<u>code of practice for design and installation of joints in buildings</u>
<u>is - 3466</u>	<u>specification for masonry cement</u>
<u>is - 3861</u>	<u>method of measurement of plinth, carpet and rentable areas of buildings.</u>
<u>is - 3952</u>	<u>specification for burnt clay hollow blocks for walls and partitions</u>
<u>is - 4098</u>	<u>specification for lime-pozzolana mixture</u>
<u>is - 4139</u>	<u>specification for sand lime bricks</u>
<u>is - 4441</u>	<u>code of practice for use of silicate type chemical resistant mortars.</u>
<u>is - 4442</u>	<u>code of practice for use of sulphur type chemical resistant mortars</u>

others i.s. codes not specifically mentioned here but pertaining to the use of bricks for structural purposes form part of these specifications.

3.3 Personnel :

Only trained personnel shall be employed for construction and supervision.

3.4 cement mortar

Cement and sand shall be mixed in specified proportions given in the drawings. cement shall be proportioned by weight, taking the unit weight of cement as 1.44 tonne per cubic metre. sand shall be proportioned by volume taking into account due allowance for bulking. all mortar shall be mixed with a minimum quantity of water to produce desired workability consistent with maximum density of mortar. the mix shall be clean and free from injurious type of soil/acid/alkali/organic matter or deleterious substances.

The mixing shall preferably be done in a mechanical mixer operated manually or by power. Mortar shall be mixed only in such quantity as required for immediate use. the mix which has developed initial set shall not be used. initial set of mortar with ordinary portland cement shall normally be considered to have taken place in 30 minutes after mixing. in case the mortar has stiffened during initial setting time because of evaporation of water, the same can be re-tempered by adding water as frequently as needed to restore the requisite consistency, but this re-tampering shall not be permitted after 30 minutes. mortar unused for more than 30 minutes shall be rejected and removed from site of work.

3.5 soaking of bricks

All bricks shall be thoroughly soaked in a tank filled with water for a minimum period of one hour prior to being laid. soaked bricks shall be removed from the tank sufficiently in advance so that they are skin dry at the time of actual laying. such soaked bricks shall be stacked on a clean place where they are not contaminated with dirt, earth, etc.

3.6 Joints

The thickness of joints shall not exceed 10 mm. all joints on exposed faces shall be tooled to give concave finish.

3.7 Laying

All brickwork shall be laid in an english bond, even and true to line, in accordance with the drawing or as directed by the engineer, plumb and level and all joints accurately kept. half and cut bricks shall not be used except when necessary to complete the bond. closer in such cases shall be cut to the required size and used near the ends of the walls. the bricks used at the face and also at the angles forming the junction of any two walls shall be selected whole bricks of uniform size, with true and rectangular faces. All bricks shall be laid with frogs up on a full bed of mortar except in the case of tile bricks. each brick shall be properly bedded as set in position by slightly pressing while laying, so that the mortar gets into all their surface pores to ensure proper adhesion. all head and side joints shall be completely filled by applying sufficient mortar to brick already placed and on brick to be placed. all joints shall be properly flushed and packed with mortar so that no hollow spaces are left. no bats or cut bricks shall be used except to obtain dimensions of the different courses for specified bonds or wherever a desired shape so requires.

The brick work shall be built in uniform layers, and for this purpose wooden straight edge with graduations indicating thickness of each course including joint shall be used. corners and other advanced work shall be raked back. brickwork shall be done true to plumb or in specified batter. all courses shall be laid truly horizontal and vertical joints shall be truly vertical. vertical joints in alternate courses shall come directly one over the other. during construction, no part of work shall rise more than one metre above the general construction level, to avoid unequal settlement and improper jointing. where this is not possible in the opinion of the engineer, the works shall be raked back according to the bond (and not toothed) at an

angle not steeper than 45 degrees with prior approval of the engineer. tothing may also be permitted where future extension is contemplated. Before laying bricks in foundation, the foundation slab shall be thoroughly hacked, swept clean and wetted. a layer of mortar not less than 12 mm thick shall be spread on the surface of the foundation slab and the first course of bricks shall be laid.

4.0 Stone Masonry :-

Description

This work shall consist of the construction of structures with stones jointed together by cement mortar in accordance with the details shown on the Drawings and these Specifications or as approved by the Engineer.

4.2 Personnel :

Only trained personnel shall be employed for construction and supervision.

4.3 Type of Masonry

The type of masonry used for structures shall be random masonry (coursed or uncoursed) or coursed rubble masonry (First sort.). However, for bridge work generally, course rubble stone masonry shall be used. The actual type of masonry used for different parts of structures shall be specified on the Drawings.

For facing work, ashlar masonry shall be used where indicated on the Drawings.

4.4 Construction Operations

4.5 General Requirements

2.1.1.1 The dressing of stone shall be as specified for individual type masonry* work and it shall also conform to the general requirements of IS: 1597 and requirement for dressing of stone covered in IS: 1129. Other specific requirements are covered separately with respect to particular types of rubble stone work.

Formatted: Bullets and Numbering

4.6 Laying

The masonry work shall be laid to lines, levels, curves and shapes as shown in the plan. The height in each course shall be kept same and every stone shall be fine tooled on all beds joints and face full and true. The exposed faces shall be gauged out, grooved, regulated and sunk or plain moulded as the case may be. The faces of each stone between the draft be left rough as the stone comes from quarry except where sacrificial layer is to be provided or plastering is resorted to due to aggressive environment.

Stones shall be sufficiently wetted before laying to prevent absorption of water from mortar.

Stratified stones must be laid on their natural beds. All bed joints shall be normal to the pressure upon them.

Stones in the hearting shall be laid on their broadest face that gives a better opportunity to fill the spaces between stones.

The courses of the masonry shall ordinarily be pre-determined. They shall generally be of the same height. When there is to be variation in the height of courses, the larger courses are to be placed at lower levels, heights of courses decreasing gradually towards the top of the wall. The practice of placing loose mortar on the course and pouring water on it to fill the gaps in stones is not acceptable. Mortar may be fluid mixed thoroughly and then poured in the joints. No dry or hollow space shall be

left anywhere in the masonry and each stone shall have all the embedded faces completely covered with mortar.

In tapered walls, the beds of the stones and the planes of course should be at right angles to the batter. In case of bridge piers with batter on both sides, the course shall be horizontal.

The bed which is to receive the stone shall be cleaned, wetted and covered with a layer of fresh mortar. All stones shall be laid full in mortar both in bed and vertical joints and settled carefully in place with a wooden mallet immediately on placement and solidly embedded in mortar before it has set. Clean chips and spalls shall be wedged into the mortar joints and bed wherever necessary to avoid thick beds or joints of mortar. When the foundation masonry is laid directly on rock, the face stones of the first course shall be dressed to fit into rock snugly when pressed down in the mortar bedding over the rock. No dry or hollow space shall be left anywhere in the masonry and each stone shall have all the embedded faces completely covered with mortar. For masonry works over rock, a leveling course of 100 mm thickness and in concrete M 15 shall be laid over rock and then stone masonry work shall be laid without foundation concrete block.

Face works and hearting shall be brought up evenly but the top of each course shall not be leveled up by the use of flat chips.

For sharp corners specially in skew bridges, through stones shall be used in order to avoid spalling of corners.

In case any stone already set in mortar is disturbed or the joints broken, it shall be taken out without disturbing the adjoining stones and joints. Dry mortar and stones thoroughly cleaned from the joints and stones and the stones reset in fresh mortar. Attempt must never be made to slide one stone on top of another, freshly laid.

Shaping and dressing shall be done before the stone is laid in the work. No dressing and hammering, which will loosen the masonry, will be allowed after it is once placed. All necessary chases for joggles, dowels and clamps should be formed before hand.

Sufficient transverse bonds shall be provided by the use of bond stone extending from the front to the back of the wall and in case of thick wall from outside to the interior and vice versa. In the latter case, bond stones shall overlap each other in their arrangement.

In case headers are not available, precast headers of M 15 concrete shall be used. Cast-in-situ headers are not permitted.

Stones shall break joint on the face for at least half the height of the course and the bond shall be carefully maintained throughout.

In band work at all angle junctions of walls the stones at each alternate course shall be carried into each of the respective walls so as to unite the work thoroughly.

The practice of building up thin faces tied with occasional through stones and filling up the middle with small stuff or even dry packing is not acceptable.

All quoins and angles of the opening shall be made from selected stones, carefully squared and bedded and arranged to bond alternately long and short in both directions.

All vertical joints shall be truly vertical. Vertical joints shall be staggered as far as possible. Distance between the nearer vertical joints of upper layer and lower shall not be less than half the height of the course.

Only rectangular shaped bond stones or headers shall be used. Bond stones shall overlap each other by 150 mm or more.

All connected masonry in a structure shall be carried up nearly at one uniform level throughout but when breaks are unavoidable the masonry shall be raked in sufficiently long steps to facilitate jointing of old and new work. The stepping of raking shall not be more than 45 degrees with the horizontal.

4.7 Random Masonry (Uncoursed and Coursed)

Dressing: Stone shall be hammer dressed on the face, the sides and beds to enable it to come in proximity with the neighboring stone. The bushing on the exposed face shall not be more than 40 mm.

4.8 Insertion of chips:

Chips and spalls of stone may be used wherever necessary to avoid thick mortar beds or joints and it shall be ensured that no hollow spaces are left anywhere in the masonry. The chips shall not be used below hearting stones to bring these upto the level of face stones. Use of chips shall be restricted to filling of interstices between the adjacent stones in hearting and they shall not exceed 20 percent of the quantity of stone masonry.

4.9 Hearting stones:

The hearting or interior filling of the wall face shall consist of rubble stones not less than 150 mm in any direction, carefully laid, hammered down with a wooden mallet into position and solidly bedded in mortar. The hearting should be laid nearly level with facing and backing.

4.10 Bond stones:

Through bond stones shall be provided in masonry upto 600 mm thickness and in case of masonry above 600 mm thickness, a set of two or more bond stones overlapping each other at least by 150 mm shall be provided in a line from face to back. In case of highly absorbent types of stones (porous limestone and sandstones, etc.) the bond stone shall extend only about two-third into the wall, as through stones in such cases may give rise to penetration of dampness and therefore, for all thicknesses of such masonry, a set of two or more bond stones overlapping each other by at least 150 mm shall be provided. One bond stones or a set of bond stones shall be provided for every 0.50 sq. m. of the masonry surface.

4.11 Quoin stone:

Quoin stone i.e., stone specially selected and nearly dressed for forming an external angle in masonry work, shall not be less then 0.03 cubic metre in volume.

4.12 Plum stone:

The plum stones are selected long stones embedded vertically in the interior of the masonry to form a bond between successive courses and shall be provided at about 900 mm intervals.

4.13 Laying:

The masonry shall be laid with or without courses as specified. The quoin shall be laid header and stretcher alternately. Every stone shall be fitted to the adjacent stone so as to form neat and close joint. Face stone shall extend and bond well in the back. These shall be arranged to break joints, as much as possible, and to avoid long vertical lines of joints.

4.14 Joints:

The face joints shall not be more than 20 mm thick, but shall be sufficiently thick to prevent stone-to-stone contact and shall be completely filled with mortar.

5.0 Cement Plastering

The cement plaster shall be 12 mm, 15 mm or 20 mm thick as specified in the item.

5.1 Mortar

The mortar of the specified mix using the type of sand described in the item shall be used. For external work and under coat work, the fine aggregate shall conform to grading IV. For finishing coat work the fine aggregate conforming to grading zone V shall be used.

5.2 Application

The Specifications as in Clause 12.3.4 shall apply except in the following respects: Beating with thin bamboo strips shall not be done on the cement plaster, and; No lime putty solution shall be applied on the face when finishing. Further the plastering and finishing shall be completed within half and hour of adding water to the dry mortar.

5.3 Thickness

Where the thickness required as per description of the item is 20 mm the average thickness of the plaster shall not be less than 20 mm whether the wall treated is of brick or stone. In the case of brick work, the minimum thickness over any portion of the surface shall be not less than 15 mm while in case of stone work the minimum thickness over the bushings shall be not less than 12 mm.

5.4 Curing

Curing shall be started as soon as the plaster has hardened sufficiently not to be damaged when watered. **The plaster shall be kept wet for a period of at least 7 days.** During this period, it shall be suitably protected from all damages at the Contractor's expense by such means as the Engineer may approve. The dates on which the plastering is done shall be legibly marked on the various sections plastered so that curing for the specified period thereafter can be watched.

6.0 Water Supply

6.1 Laying and jointing of G.I. pipes (external work)

6.1.1 Cutting and Threading:

Where the pipes have to be cut or rethreaded, the ends shall be carefully filed out so that no obstruction to bore is offered. The end of the pipes shall then be carefully threaded conforming to the requirement of IS: 554-1964 with pipe dies and tapes in such a manner that will not result in slackness of joints when the two pieces screwed together. The screw threads of pipes and fittings shall be protected from damage until they are fitted.

6.1.2 Jointing:

The pipes shall be cleaned and cleared of all foreign matter before being laid. In jointing the pipes, the inside of the socket and the screwed end of

the pipes shall be oiled and rubber over with white lead and a few turns of spun yarn wrapped around the screwed end of the pipes. The end shall then be screwed in the socket, Tee etc. with the pipe wrench. Care shall be taken that all pipes and fittings are properly jointed so as to makes the joints completely water tight and pipes and fittings are properly jointed so as to make the joints completely water tight and pipes are kept at all times free dust and dirt during fixing. Burr from the joints shall be removed after screwing. After laying, the ends of the pipes shall be temporarily plugged to prevent access of water, soil or any other foreign matter.

6.1.3 Laying and Jointing G.I. Pipes (Internal work)

2.2.1 Cutting, Threading and Jointing.

Refer para 2.2.1 and 2.1.2

2.2.2 Fixing of GI pipes:

All exposed GI pipes shall be fixed by means of standard pattern holder bat clamps, keeping pipes 1.5cm clear of the wall. If the pipes are fixed in chases they shall be fixed in position by iron hooks.

7.0 Sewerage and Storm Water Drainage

7.1.1 General

Stoneware pipes shall be salt glazed, sound, free from cracks, deformities and imperfections in glazing. They shall be cylindrical, straight and to standard dimensions. They shall be made of hard burnt stoneware of dark grey colour, and thoroughly glazed and shall give sharp clear note when struck with a light hammer.

The pipes shall be conform to the requirements of Indian Standard No. IS: 651.

7.1.2 Jointing

Tarred gasket of hemp yarn soaked in thick cement slurry shall first be placed round the spigot of each pipe and the spigot shall then be slipped home well into the socket of the pipe previously laid. The pipe shall then be adjusted and fixed in the correct position and the gasket caulked tightly home so as to fill not more than 1/4th of the total depth of the socket.

The remaining depth of the socket shall then be filed with a stiff mixture of cement mortar 1:1 (1 cement : 1 fine sand). When the socket is thus filed a fillet shall be formed round the joint with a trowel forming an angle of 45° with the longitudinal axis of the pipe on both sides of the collar. The joints shall be cured for minimum four days.

7.1.3 Sanitary Fixtures and Fittings

7.1.4 Workmanship

All sanitary – ware shall be fixed in a neat workmanlike manner, true to level and plumb. Manufacturer's instructions shall be followed closely regarding installation and commissioning. Cutting or making good of tiles is not permitted anywhere while fixing of fixtures and fittings. All sanitary fixture & fittings shall be of approved make. The Contractor shall obtain approval of the Engineer prior to procurement of any sanitary fixture & fittings regarding its make, model, etc.

7.1.5 Protection of Fixtures.

Fixtures shall be protected throughout the progress of the work from damage. Special care shall be taken to prevent damage and scratching of chromium plated fittings. Tool marks on chromium fixtures, etc. shall not be accepted.

All fixtures shall be fixed with chromium plated brass screws with washers whenever necessary.

Protective paper on fixture shall be removed with hot water only at the final completion of work.

7.1.6 Sanitary ware

All porcelain sanitary ware shall be of first quality, free from warps, cracks and glazing defects. All Sanitary ware, fittings and fixtures shall be as shown in drawings and indicated in Bill of Quantities. Sanitary ware shall be of approved make. The contractor shall obtain approval of the Engineer prior to procurement of any sanitary ware regarding its make, model, colour, etc.

7.1.7 Testing

When the installation has been completed to the satisfaction of the Engineer it shall be tested in the following manner:

- a) The entire system shall be slowly filled with water, allowing any trapped air to escape.
- b) When all outlets are closed the system shall be checked for water tightness. Each outlet shall be checked for rate of flow and correct.

7.1.8 Unacceptable Works

All defective works are liable to be demolished, rebuilt and defective materials replaced by the Contractor at his own cost. In the event of such works being accepted by carrying out repairs etc. as specified by the Engineer, the cost of repairs shall be borne by the Contractor.

16.0 Quality Control on Works & Materials

The Contractor shall be responsible for the quality of the Works in the entire construction works within the contract. He shall, therefore, have his own independent and adequate set up for ensuring the same as per Clause 1.15 of Standard Specifications and QAQC manual.

H. ELECTRICAL WORK

1.0 Scope Of Work:

Note: All the items included in BOQ should be as per BSR-2008 (category-I)/AVVNL Specifications

The Scope of work of the contractor shall include the following:

- i. Supply, Installation, Testing & Commissioning of Power Distribution Board and Sub Power Scheme Distribution Board including supply & installation of all electrical components as shown in the diagrams of the boards along with installation hardware as well as accessories & connected civil work
- ii. Supply, Installation, Testing & Commissioning of integral control gear, marshalling boxes as well as other required installation hardwares & accessories including civil works conforming to respective drawings enclosed.
- iii. Supply, installation, testing and commissioning of required items like lighting fixtures, ceiling fans, exhaust fan, power socket, conduits, clamps, nuts, screws, lighting wires erection hardware and accessories.
- iv. Supply, Installation, Testing & Commissioning of Earthing system with Earth pits, with Earth electrodes and Earth flats/wires as per sizes indicated in BOQ & drawing enclosed.
- v. In addition to above, it is the responsibility of the contractor:

Formatted: Justified, Numbered + Level: 1 + Numbering Style: i, ii, iii, ... + Start at: 1 + Alignment: Left + Aligned at: 0.5" + Tab after: 1" + Indent at: 0.75", Tabs: 0.75", List tab + Not at 0.81" + 1"

Formatted: Bullets and Numbering

(i) To co-ordinate with the AVVNL authorities for getting connection to the electrification system and works in the proposed landfill site.

(ii) To prepare necessary electrical drawings and get them approved by CEIG of Rajasthan Govt. as well as getting clearance certificate from all the statutory bodies for commissioning the system. Getting approval of the installation after completion of installation works of all electrical equipments/items of the system from statutory authorities like CEIG etc.

Formatted: Indent: Left: 1", Hanging: 0.38", Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 9 + Alignment: Left + Aligned at: 1" + Tab after: 1.25" + Indent at: 1.25"

1.2 System Parameters :

- (a) Voltage: AC, 415v+ 10%, 3 phase & neutral
- (b) Frequency: 50 c/s + 3 %
- (c) Amb. Temp : 50° c
- (d) Earthing system: solidly earthed
- (e) Control circuit : AC, 240V, SPN.
- (f) Lighting circuit: AC, 240V, single phase.

Formatted: Bullets and Numbering

1.3 Relevant I.S. To Be Followed:

1	IS:732 (--do--)	Code of practice for electrical wiring installations.
2	IS:3043 (Latest revision)	Code of practice for Earthing
3	IS:8828 (Latest revision)	Miniature air break circuit breakers for voltages not exceeding 1000V
6	IS:9974 (Part 1) (Latest revision)	High pressure sodium vapour lamps (General requirements and tests)
7	IS:2147 (Latest revision)	Degree of protection
8	IS:5216 (Latest revision)	Guide for safety procedures & practices in electrical works
9	IS:1913 (--do--)	Electrical light fitting, general & safety requirements
10	IS:8061 (--do--)	Code of practice for design, installation and maintenance of service lines up to & including 650.
11	IS:2309 (Latest revision)	Code of practice for the protection of allied structures against lightning.
12	IS:4237 (--do--)	General requirements for switchgear and control gears for voltages not exceeding 1000V AC or 1200V DC.
13	IS:2959 (--do--)	Contactors for voltages not exceeding 1000V AC Or 1200V DC
14	IS:694 (--do--)	PVC insulated cables for working voltages up to & including 1100V AC

1.4 EARTHING

I. Copper earth bars of 25mm x 3mm shall be provided for the entire length of the panel. The framework of the enclosure shall be connected to this earth bus. Provisions shall be made for connection from this earth bus to the main earthing bus bar coming from the earth pit on both side of the switchgear.

Formatted: Justified, Indent: Left: 0.31", Hanging: 0.06", Numbered + Level: 1 + Numbering Style: I, II, III, ... + Start at: 1 + Alignment: Right + Aligned at: 0.63" + Tab after: 0.75" + Indent at: 0.75", Tabs: 0.75", Left

II. The earth continuity conductor of each incoming and outgoing feeder shall be connected to this earth bus bar. The armour of cables shall be properly connected with earthing clamp and the clamp shall be ultimately bonded with the earth bus bar.

Formatted: Justified, Indent: Left: 0.31", Hanging: 0.06", Numbered + Level: 1 + Numbering Style: I, II, III, ... + Start at: 1 + Alignment: Right + Aligned at: 0.63" + Tab after: 0.75" + Indent at: 0.75"

1.5 LABELS

Engraved PVC labels shall be provided on all incoming and outgoing feeders. Single line circuit diagram showing the arrangements of circuit inside shall be pasted on insides of the panel door and covered with transparent laminated plastic sheet.

1.6 Earthing Scheme

1.6.1 Scope

- (i) The complete scope of work for earthing system shall be as per IS 3043 and preparation of layout drawings, supply, installation testing, commissioning and approval to the satisfaction of Electrical inspector.
- (ii) Earthing system shall be provided to ensure equipment and personnel safety and shall comply with all currently applicable standards regulations and safety codes.
- (iii) Earthing conductors shall be of hot dip galvanized iron flats / strips with minimum 100 microns thick.
- (iv) Earthing system for the proposed building electrical equipments shall be provided with its own independent earthing pits as mentioned in BOQ.
- (v) The installation work shall include unloading, storing, laying, fixing, jointing / termination, testing and commissioning associated with safety earthing system of plant.
- (vi) The Contractor shall supply and install GI steel wires / strips required for system and individual equipment grounding. All work such as cutting, bending, supporting, coating, drilling, brazing, clamping, bolting and connecting onto structures, pipes, equipments frames, terminals, rails or other devices shall be in the Contractor's scope of work. The excavation, trenching and back filling shall be carried out by the Contractor as required, together with the supply of all material.
- (vii) Earthing shall conform to the Indian Standard Code of Practice IS: 3043 and Indian Electricity Rules, 1956. All materials and fittings used in the earthing installation shall conform to the relevant Indian Standards. Installation work shall be in accordance with approved earthing drawings.
- (viii) All earthing conductors to be buried in the ground shall be laid 600 mm below ground level and 1500 mm away from buildings. Backfill shall be placed in layers of 150 mm, uniformly spread along the trench and consolidated.
- (ix) Earth pits shall be constructed according to the stipulations of IS: 3043. Except as noted earth electrodes shall be fabricated in accordance with IS: 3043. The minimum spacing between two adjacent earth electrodes shall not be less than 6 metres. Earth electrodes shall be located in concrete inspection chambers with suitable lids and provided with facilities for the periodic testing of the earth resistivity. Electrodes shall as far as practicable be embedded below the permanent moisture level.
- (x) Cable armour shall be bonded to the earthing system. Metal pipes and conduits through which cables run shall be efficiently bonded and earthed.

- Electrical conduits, pipes and cable tray sections shall be bonded ensure electrical continuity and connected to earthing conductor at regular interval.
- (xi) All underground connections for the earthing system shall be welded, connection to equipment and devices shall be normally of the bolted type.
- (xii) Earth pits shall be treated with salt and charcoal.

2.0 Internal Wiring

2.1 INTERNAL WIRING :

This section covers, definition of point wiring, system of wiring and supply, installation, connection, testing and commissioning of point wiring for light points, ceiling fan points, exhaust fan points, convenience socket outlet points, power socket outlet points, bell outlet points etc. including fixing of light fixtures, ceiling fan, exhaust fan, wall fan, bell etc.

2.2 STANDARDS :

The following standards and rules shall be applicable:

<u>IS : 732</u>	<u>Code of practice for electrical wiring installation (System voltage not exceeding 650 V)</u>
<u>IS : 1646</u>	<u>Code of practice for fire safety of buildings (General) Electrical installation.</u>
<u>IS : 1653</u>	<u>Rigid steel conduits for electrical wiring.</u>
<u>IS : 2667</u>	<u>Fittings for rigid steel conduits for electrical wiring.</u>
<u>IS : 3480</u>	<u>Flexible steel conduits for Electrical wiring.</u>
<u>IS : 3837</u>	<u>Accessories for rigid steel conduit for electrical wiring.</u>
<u>IS : 694</u>	<u>PVC insulated cables.</u>
<u>IS : 2509</u>	<u>Rigid non-metallic conduits for electrical wiring.</u>
<u>IS : 6946</u>	<u>Flexible (Pliable) non-metallic conduits for electrical installation.</u>
<u>IS : 1293</u>	<u>3 pin plugs and sockets.</u>
<u>IS : 8130</u>	<u>Specifications of conduits for electrical installation.</u>
<u>IS : 3854</u>	<u>Switches for domestic purpose.</u>
<u>IS : 3415</u>	<u>Fittings for rigid non-metallic conduits.</u>
<u>IS : 4648</u>	<u>Guide for electrical layout in residential building Indian electricity act and rules.</u>

Regulations for the electrical equipment in buildings issued by the Bombay Regional Council of Insurance Association of India.

All standards and codes mean the latest.

2.3 POINT WIRING :

- a. A point shall consist of the branch wiring from the distribution board together with a switch as required, including the ceiling rose or pendant holder or swan holder, or ceiling fan box or socket or suitable termination. A point shall include, in addition, the earth continuity conductor / wire from the distribution board to the earth pin / stud of the outlet / switch box and to the outlet points.
- b. The point wiring shall be carried out in the under mentioned manner :
- c. Supply, installation, fixing of conduits with necessary accessories, junction / pull / inspection / switch boxes and outlet boxes.

Formatted: Bullets and Numbering

- d. Supplying and drawing of wires of required size including earth continuity wire.
- e. Supply, installation and connection of flush type switches, sockets, cover plates, switch plates, and fixing fan regulator etc.
- f. The point shall be complete with the branch wiring from the distribution board to the outlet point, through switch box, conduit with accessories, junction / pull / inspection boxes, control switch, socket, outlet boxes, ceiling roses, button / swan holder, connector etc.

2.5 POINT RATE :

The rate per point shall include supply, installation, connection, testing and commissioning of point as described under “point wiring”. The measurements of the points will be enumerated.

2.6 SYSTEM OF WIRING :

Unless otherwise mentioned on the drawings, the system of point wiring shall be as follows :

- (a) The system of wiring shall consist of single core, PVC insulated, 650/1100 volt grade, copper conductor wires.
- (b) Conduits shall be concealed in Ceiling and walls etc.
- (c) Rigid non-metallic, PVC conduit shall be used for all purpose.

Formatted: Bullets and Numbering

2.7 GENERAL :

Prior to laying of conduits, the contractor shall submit for approval, the shop drawing for conduit layout indicating the route of the conduits, number and size of the conduits, location of junction / inspection / pull / outlet boxes, size and location of switch boxes, number and size of wires pulled through each conduit and all other necessary relevant details.

2.8 MATERIAL :

(a) PVC CONDUITS :

All non-metallic PVC conduits shall conform to IS : 9537. The conduit shall be plan and type as specified in IS : 9537 and shall be used with the corresponding accessories (Refer IS : 3419 specification for fittings for rigid non PVC metallic conduits). PVC conduits shall be rigid unplasticised, heavy gauge having 2.0 mm. wall thickness upto 20 mm. diameter conduit and 2.5 mm. wall thickness for all sizes above 20 mm. diameter.

(b) COVER PLATE :

The cover of the boxes to receive outlet points shall be of best anodized sheet cut to shape and size or plate of approved manufacturers of switches.

(c) LIGHTING WIRES:

For all internal wiring PVC insulated multistrand copper wire conforming to AC 660 V grade shall be considered.

The insulation shall be PVC compound complying with the requirements of IS : 694. It shall be applied by an extrusion process and shall form a compact homogenous body.

The thickness of PVC insulation shall be as set out in the relevant standards

Unless otherwise specified in the drawings the size of the wires used for internal wiring shall be as follows:

In case of circuit wiring for lights, ceiling fans, bell, 5A convenience socket outlet points (P+N+E) :

2.5 sq.mm. - From D.B. to switch boards.

2.5 sq.mm. - From switch boards to outlet points

In case of power socket outlet circuit having not more than two 15 A power outlet (P+N+E) :

4.0 sq.mm. - From D.B. to first floor outlet

a. sq.mm. - From first power outlet to second power outlet

In case of power socket outlet circuit having single 15 A power outlet (like water heater) (P+N+E) :

4.0 sq.mm. - From D.B. to power outlet.

In case of 15 A. power outlet for window Air conditioner, exhaust fan or other likewise appliances (P+N+E) :

4.0 sq.mm. - From D.B. to power outlet.

The earth continuity conductor shall be similar to circuit cables and shall be drawn through conduit along with other circuit cables.

Formatted: Bullets and Numbering

Formatted: Justified, Indent: Left: 0.7", Numbered + Level: 2 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.88" + Tab after: 1.13" + Indent at: 1.13", Tabs: Not at 1"

Formatted: Bullets and Numbering

Formatted: Bullets and Numbering

2.9 Inspection, Testing And Commissioning:

(1) All electrical item/equipments viz Power Distribution Board with electrical items, lighting poles, marshalling box, cables, fixtures with lamps shall be subjected to inspection at works before dispatch. The inspection of these item/equipments shall be carried out as per the details furnished in the approved drawing.

(2) Testing of the above items shall be carried out in assembled form with required amount of power supply applied to them and operation as well as function of the items/equipments checked for their required output and control function.

(3) Testing & commissioning of all the above equipments/items shall also be carried out at site for their required performance in the presence of Engineer – in - charge.

(4) The system in complete form shall be tested and commissioned to the satisfaction of engineer in charge at site.

(5) Routine test shall be carried out at works as per relevant IS on the following equipments is presence of the client’s representative.

a. Power distribution board duly equipped and wired with all the electrical components/items as per drawing.

b. LT cables.

c. Lighting fixtures with lamps.

Formatted: Bullets and Numbering

- (6) All testing and commissioning of the completed electrical works, shall be the responsibility of the contractor who shall also obtain the necessary permission wherever required of the Electrical Inspector for putting the installation into regular use. All instruments and equipment required for testing shall be arranged by the contractor.
- (7) The inspection and testing shall be carried out in accordance with Indian Electricity rules 1956 and IS: 732 (Part -3) inspection and testing of installation by the contractor in the presence of Engineer in-charges or his representative. In the event of defects being found, these shall be rectified as soon as possible and the installation retested.
- (8) Some of the tests and inspections to be carried out are:
- (i) General inspection of complete installation w.r.t. Conformity with Indian Standards and Indian Electricity Rules.
- (ii) General workman ship (Earthing, cable, bolt connections, etc..)
- (iii) Testing of insulation resistance of all cables and wires.
- (iv) Testing of Earth continuity path.
- (v) Testing of polarity of single pole switches.
- (vi) Lighting circuits to be tested for resistance to earth in the following manner.
- (a) All switches 'ON' with the consuming devices in circuit.
- (b) All switches 'ON' with the consuming devices removed, test for the value between poles and E.
- (c) All switches 'OFF' with the consuming devices in position, test for the IR value between poles and E.
- (vii) Testing the earth resistance of earth pits and full earthing grid as a whole.
- (viii) Tests specified by manufactures for particular equipment.
- (ix) Check for "danger board" sign wherever required.
- (9) Inspection & testing of cables
- (a) LT cables shall be inspected and at works before dispatch to site. Routine test shall be conducted in the presence of clients representative at works
- (b) Before and after laying of cable at site, LT cables shall be tested for IR value and continuity test in the presence of Engineer-IN-Charge.

Formatted: Justified, Indent: Left: 0.72", Hanging: 0.4", Space Before: Auto, After: 6 pt, Numbered + Level: 2 + Numbering Style: i, ii, iii, ... + Start at: 1 + Alignment: Left + Aligned at: 0.75" + Tab after: 1.25" + Indent at: 1.25", Tabs: 1.1", List tab + Not at 1.44"

Formatted: Justified, Indent: Left: 0.72", Hanging: 0.4", Space Before: Auto, After: 6 pt, Numbered + Level: 2 + Numbering Style: i, ii, iii, ... + Start at: 1 + Alignment: Left + Aligned at: 0.75" + Tab after: 1.25" + Indent at: 1.25", Tabs: 1.1", List tab

Formatted: Bullets and Numbering

Formatted: Justified, Indent: Left: 0.72", Hanging: 0.4", Space Before: 6 pt, After: 6 pt, Numbered + Level: 1 + Numbering Style: a, b, c, ... + Start at: 1 + Alignment: Left + Aligned at: 0.69" + Tab after: 0.94" + Indent at: 0.94", Tabs: 1.1", List tab + 1.63", Left

24 Sluice Valves

24.1 This section covers the requirements for non rising stem type sluice valve 150 mm size. The valves will be used for water supply on line installations in upright manual operation. Sluice valve shall be as per IS:

14846 positions, up to 45⁰ C working temperature, with double flange and cap or hand wheel, for.

24.2 Nominal pressure and dimensions

The working pressure of the valves shall be 10 kg/cm² (PN 1)

The dimension and mass of the sluice valves shall be in accordance with IS: 14846.

The flanges and their dimensions of drilling shall be in accordance with IS: 1538.

24.3 Material

The material for different components parts of sluice valve shall conform to requirements given in para 16.8.3 of Standard Specifications (Civil Works) of RUIDP. (page 312 of 445)

24.4 Coating

All components susceptible to corrosion attack shall be coated internally and externally. Protective coating shall always be applied to the individual components before they are assembled, following shot blasting to give good adhesion.

24.5 Marking, testing and inspection

The standard marking and packing of the valves shall be done as per relevant Standard. The direction of rotation for OPEN, CLOSE position shall be marked on the hand wheel and on the bonnet of the valve.

Testing of sluice valve shall be done for close end in accordance with IS: 14846.

All the valves shall be inspected for flaw detection test in accordance with IS: 14846.

24.6 The design, construction material, manufacture, inspection, performance and testing shall comply with all applicable Indian Standards and Codes. Nothing in the specification will be construed to relieve the supplier of this responsibility

24.7 Marking, testing and inspection

The direction of rotation for OPEN, CLOSE position shall be marked on the hand wheel and on the bonnet of the valve.

All the valves shall be inspected for flaw detection test in accordance with IS: 14846.

24.8 GI Water Stop

GI Water stop consisting of 150 mm wide GI strip of 18 gauge (with 150 mm overlap at the ends) shall be provided at construction joints in walls of water retaining structures as per drawing and as instructed by the Engineer.

Formatted: Centered

GOVERNMENT OF RAJASTHAN

Formatted: Font: 24 pt, Bold,
Complex Script Font: 24 pt, Small
caps, Expanded by 3 pt

Formatted: Centered

URBAN IMPROVEMENT TRUST : AJMER

**CONSTRUCTION OF G+3 HOUSES UNDER AFORDABLE
HOUSEING POLICY-2009 MODEL NO. 1**

BID DOCUMENT FOR

Formatted: Centered

**Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A
dwelling units (G+3) Houses under affordable Housing
scheme at Lohagal khasra no. 832 Ajmer.**

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

SECTION VII:

TECHNICAL SUBMISSIONS

Formatted: Bullets and Numbering

PREAMBLE TO SCHEDULES

The information to be filled in by the Bidder in the following will be used for purposes of post qualifications as provided for in clause 4 & 5 of the Instructions to Bidders. This information will not be incorporated in the contract. Bidders are required to provide complete information asked in the schedules. No schedule or item of schedule is to be left blank. In case, a particular schedule or item in schedule is not applicable, the same should be clearly indicated.

Formatted: Bullets and Numbering

Cent age

Signature of authorized representative.....

Formatted: Bullets and Numbering

Check List for submissions

The Bidder has to fill in all tender forms (if applicable) in this document and to submit them duly signed and stamped. They shall be used for the evaluation of his offer, the assessment whether his tender is substantial and for his post-qualification.

Formatted: Bullets and Numbering

Deleted: pre

The Bidder shall neither add nor delete the texts of the forms. This might lead to the rejection of the tender. The papers shall remain bound in the tender document issued to the Bidder. The supporting papers as indicated, Section II, Bidding data of the tender documents shall be bound in a box file, in the same order as they appear hereafter. Tender forms and supporting papers required

Deleted: in Part B

Deleted: 2

Designation	What to do?	Supporting papers
Tender Letter	to be filled in, signed and stamped	
Statement having read TD and addenda	to be filled in, signed and stamped	
General information about the bidder	to be filled in, signed and stamped	Powers of attorney, attested by notary on stamp paper of Rs 100; Earnest Money in required form; Evidence of experience of firm in similar jobs; Certificates of clearance of tax on sale and purchase of goods; Audited balance sheets and profit and loss statements for 2008-09, 2009-10 and 2010-2011 Sanction letter of overdraft facilities with the Banker(s) / Financial Institution(s) as asked in Tender Document.
Tender Letter, Letter for Tender for Work, Declarations & Undertakings	to be filled in, signed and stamped	
<u>Post</u> Qualification	to be filled in, signed and stamped	<u>Post</u> -qualification criteria

Deleted: Pre

Deleted: Pre

Signature of authorized representative.....

Tender Letter

To

Secretary,
Urban Improvement Trust,
Todarmal Marg,
Ajmer-305001, Rajasthan

Subject: Tender for "----" Package Nos. ____

Ref: Your NIT No. - ____ dated

Dear Sir,

1. Having carefully examined all the parts of the tender documents and the addenda (if any) for the execution of the above mentioned works, having obtained all requisite information affecting this tender, having visited the site and being aware of all conditions and difficulties likely to affect the execution of the contract, we, the undersigned, hereby offer to execute the single responsibility job on percentage rate basis as described in the Tender Documents and to hand over the whole of the said works in conformity with the drawings, conditions of contract, technical conditions and scope of work, for the sum indicated in the financial offer and such other sum as may be ascertained in accordance with the Contract.
2. We declare that we have read and understood and that we accept all clauses, conditions, descriptions, drawings of the tender documents volume I to volume-II and subsequent addenda (if any) without any change, reservations and conditions. If any change, reservation or condition has been made in our tender we herewith withdraw it.
3. We undertake, if our tender is accepted, to commence the work within 10 days of the work order and to complete the work in the stipulated time for completion.
4. If our tender is accepted we will provide a security deposit in the required form in the sums as stipulated in the tender documents.
5. Unless and until the formal agreement is prepared and signed, this tender, together with your written acceptance thereof shall constitute a binding contract between us.
6. We agree to abide by this tender for the period of ____ days from the date of opening of the pre-qualification bids and it shall remain binding upon us and may be accepted by you at any time before the expiry of that period, and not to make any modifications in its terms and conditions which are not acceptable to you.

7. Together with the tender we submit the earnest money of Rs 1)
..... as
2)

Dated this day
..... 20..

3) in the capacity of 4)
.....

duly authorized to sign the tender for and on behalf of 5)
.....

Name:

Address:

Telephone:

Telefax:

Telex:

Signature of the authorized representative
.....

-
- 1 Amount of bid security
 - 2 Indicate the form in which it is provided.
 - 3 Signature of the authorized Representative of the firm
 - 4 Designation
 - 5 Name of Tenderer

POWER OF ATTORNEY OF THE REPRESENTATIVE OF A FIRM

Power of Attorney for Authorized Representative

The firm M/s.....authorize the following Representative to sign and submit the tender document, negotiate terms and conditions for the contract, to sign the contract, to deal with the UIT, to issue and receive correspondence related to all matters of the tender "-----". We / M/s _____ undertake the responsibility due to any act of the representative appointed hear by.

For Partnership Firm's

S. No.	Name of the All Partner	Signature of Partner with Seal
1.		
2.		
3		
4	Name and Designation of the person Authorized	
5	Attested Signature of the Authorized Representative	

For Limited Firm's

Name and Designation of the person Authorized	
Firm	
Address	
Telephone No.	
Fax No.	
Telex No.	
Authority By which the Powers is delegated	
Attested Signature of the Authorized Representative	
Name and Designation of person attesting the signatures	

To be Prepared on Stamp Paper of Rs.100/- duly attested by Notary

STATEMENT OF COMPLIANCE WITH THE BIDDING DOCUMENTS

Bidder shall provide a complete statement of any proposed deviations from the Conditions of Contract that are stipulated in the various Sections in Volume 1, giving reference to the Section Number and Clause Number, along with a description of the proposed deviation and the reason for proposing such deviation.

Deleted: General Requirement

Section & Clause Number	As Mentioned in Bid Document	As Proposed by the Bidder	Reasons for Deviation

The Bidder hereby certifies that the above mentioned deviations are the only deviations proposed to the various Sections of the Bid Document, and that he agrees with all remaining conditions.

Signatures of Authorized Representative

Formatted: Bullets and Numbering

Urban Improvement Trust, Ajmer

Signature of Contractor

DECLARATION – UNDER THE OFFICIAL SECRETS ACT

"I/We hereby declare that I/We shall treat the tender documents, drawings and other records, connected with the work, as secret confidential documents and shall not communicate information derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the same".

I/We understand that failure to observe the secrecy of the tenders will render the tender, liable to summary rejection.

Signature

With Seal

Full Name _____

Designation _____

Address _____

(Authorized representative)

FINANCIAL INFORMATION

Formatted: Bullets and Numbering

(Post Qualification Criteria as in Clause 4 & 5 of ITB)

Deleted: Pre

2.2 Annual Turnover and Net Worth

Formatted: Bullets and Numbering

Year	Annual Turnover	Net Worth
2008-2009		
2009-2010		
2010-2011		

NOTE:

1. Audited Balance Sheets and Income Tax Clearance certificates for above years should be enclosed.
2. Net worth shall be determined as the sum of the equity capital and free reserves. Certificate of a Chartered Accountant to this effect shall be provided.
3. The bidder must have access to bank credit limit, both fund based and non-fund based to the extent of a minimum requirement as in Bidding Data. The bidder has to submit the relevant sanction letter from Bank(s) / financial institution(s) along with post-qualification documents.

Deleted: pre

2.3 Working Capital:

Formatted: Bullets and Numbering

S. No.	Item	Amount in Rs.
1	Current Assets at the end of year 2010-11	
2	Add Revolving line of credit limit	
3	Total (1 + 2)	
4	Current liabilities including short term liabilities to be discharged in one year	
5	Working Capital (3 - 4)	

- Note :-1** Statement of current assets & current liabilities should be enclosed duly verified by C.A.
- 2 Statement should be prepared as per audited final account of year 2010-11
 - 3 Revolving line of credit shall be added in current assets as per certificate issued by the bank in this regard.
 - 4 Calculation summary for current assets & liabilities should be enclosed separately

Bidder Seal

Bidder's Authorised Signature

Urban Improvement Trust, Ajmer

Signature of Contractor

1.3 BIDDING CAPACITY

1.3.1 STATEMENT FOR WORK IN HAND

This is to certify that the status of the present works in hand as on 31.03.11 of order value more than Rs. 100.00 lacs for which either order are received or the work is under execution but which are still not completed is as under:

Amount In Lac Rs.

S. No	Brief Description of Work	Stipulated Date of Start	Stipulated Date of Completion	Time left for execution after March 2011 in months	Cost of awarded work	Cost of work executed up to March 2011	Balance Cost of un-executed work as on March 2011
1	2	3	4	5	6	7	8=6-7

This is certified that this is true in all respect and can be used for calculation of the bidding capacity as per the formula given in ITB. This is also certified that other orders under execution by the firm shall not materially affect the bidding capacity of the firm as required in this tender.

Signatures With Seal of Authorised Signatory for tender

Urban Improvement Trust, Ajmer

Signature of Contractor

1.3.2 FUTURE COMMITMENTS: STATEMENT OF WORKS FOR WHICH BIDS ALREADY SUBMITTED

Formatted: Bullets and Numbering

Description of work	Place & State	Name of Address of Employer	Stipulated period of completion	Date when decision is expected	Remarks if any
1	2	3	4	5	6

Urban Improvement Trust, Ajmer

Signature of Contractor

1.4 EXPERIENCE

Formatted: Bullets and Numbering

1.4.1 STATEMENT OF SPECIFIC EXPERIENCE

Experience of Applicant Firm In last five years for completion of a civil engineering works
(Post-Qualification Criteria as in Clause 4 of ITB)

Deleted: Pre

Deleted: 4

S.No	Name of Project / Contract	Project Period		Cost as per Work Order	Cost of Executed Work	Address Employer Contact Telephone Number		
		Date of Start of Work	Date of Completion of Work					

NOTE:

**The period of Five years shall be counted as on 31.03.2011
Client Certificate towards satisfactory completion of work from officer not below
the rank of Executive Engineer or its equivalent should be attached in respect of
each work. The certificate should be submitted with relevant work orders.**

Bidder Seal

Urban Improvement Trust, Ajmer

Signature of Contractor

GOVERNMENT OF RAJASTHAN

Formatted: Font: 24 pt, Bold,
Complex Script Font: 28 pt, Small
caps, Expanded by 3 pt

Formatted: Centered

URBAN IMPROVEMENT TRUST : AJMER

CONSTRUCTION OF G+3 HOUSES UNDER AFORDABLE HOUSEING
POLICY-2009 MODEL NO. 1

BID DOCUMENT FOR

Formatted: Centered

Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units (G+3)
Houses under affordable Housing scheme at Lohagal khasra no. 832 Ajmer.

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

SECTION VIII:

Formatted: Bullets and Numbering

FORMS

Urban Improvement Trust, Ajmer

Signature of Contractor

Notes on Sample Forms

All Bidders shall complete and provide the Bid Security in accordance with the requirements of the bidding documents.

A Bidder who has been post qualified on the basis of providing an assured revolving line of credit from its Bank shall furnish, as a part of its Bid, a Security for a Revolving Line of Credit in the amount specified in the letter of notice of post qualification.

Bidders should not complete the Forms of Agreement at this time. Only the successful Bidder will be required to complete the Forms. The Forms of Agreement, when finalized at time of contract award, will incorporate any corrections or modifications to the accepted bid resulting from arithmetic corrections, acceptable deviations (time for completion, technical deviations, commercial deviations, etc.), spare parts or quantity variations in accordance with the requirements of the bidding documents.

The Form of Performance Security should not be completed by the bidders at the time of bid preparation. Only the successful Bidder will be required to provide these securities in accordance with the forms indicated herein or in another form acceptable to the Employer.

Urban Improvement Trust, Ajmer

Signature of Contractor

Table of Contents

<u>Description</u>	<u>Page</u>
Form of Bid Security	3
Form of Security for Revolving Line of Credit	4
Form of Contract Agreement : Works	5
Form of Security Deposit	6

Deleted: Form of Advance Payment Security ... [1]

Urban Improvement Trust, Ajmer

Signature of Contractor

**FORM OF BID SECURITY
(BANK GUARANTEE)**

WHEREAS, _____ [Name of Bidder] (hereinafter called "the Bidder") has submitted his bid dated _____, 2010, [Date] for the construction of the insert name of work under bid package number insert bid reference (hereinafter called "the Bid").

Deleted: Baisalpur Water Supply Project, Transmission System Works
Deleted: BSL/TKY/01

KNOW ALL PEOPLE by these presents that We _____ [Name of Bank] of [Name of Country] having our registered office at _____ (hereinafter called "the Bank") are bound unto the Local self Department of the Government of Rajasthan, represented by the **Secretary, Urban Improvement Trust, Todarmal Marg, Ajmer-305001, Rajasthan**, (hereinafter called "the Employer") in the sum of _____ 6 for which payment well and truly to be made to the said Employer the Bank binds himself, its successors and assigns by these presents.

Deleted: Urban Development

SEALED with the Common Seal of the said Bank this _____ day of _____, 2010.

THE CONDITIONS of this obligation are:

- (1) if the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid; or
- (2) if the Bidder refuses to accept the correction of errors in his Bid; or
- (3) if the Bidder is determined at any time prior to award of contract to have engaged in corrupt or fraudulent practices in competing for the contract; or
- (4) if the Bidder, having been notified of the acceptance of his Bid by the Employer during the period of Bid validity:
 - (a) fails or refuses to execute the Form of Contract Agreement in accordance with the Instructions to Bidders, if required; or
 - (b) fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders;

Formatted: Indent: Hanging: 0.75"
Formatted: Indent: Left: 0.25", Hanging: 0.25"
Formatted: Indent: Hanging: 0.25"
Formatted: Indent: Left: -0.5", Tabs: 0.75", Left + Not at 1"
Formatted: Indent: Left: 0.75", Hanging: 0.25"

we undertake to pay to the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate his demand, provided that in its demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or all of the above conditions, specifying the occurred condition or conditions. This Guarantee will remain in force up to and including the date **150 days** after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE OF THE BANK _____
WITNESS _____ SEAL _____

[Signature, Name, and Address]

6 The bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees or an equivalent amount in US Dollars or Euro. This figure should be the same as shown in Clause 18.1 of the Instructions to Bidders.

Urban Improvement Trust, Ajmer

Signature of Contractor

**FORM OF SECURITY FOR REVOLVING LINE OF CREDIT
(BANK GUARANTEE)**

WHEREAS, _____ [Name of Bidder] (hereinafter called "the Bidder") has submitted his bid dated _____, 2010, [Date] for the construction of the [insert name of works], under bid package number [insert bid reference] (hereinafter called "the Bid").

AND WHEREAS the Bidder is required, as a condition of prequalification and submission of Bid, to furnish a Bank Guarantee for a Revolving Line of Credit for executing the Works under the [insert reference of work]

KNOW ALL PEOPLE by these presents that We _____ [Name of Bank] of [Name of Country] having our registered office at _____ (hereinafter called "the Bank") are bound unto _____ [Name of Bidder] to provide a sum of _____ [amount of the guarantee in figures and in words] as a dedicated

Revolving Line of Credit for executing the Works under the [insert reference of work], [insert bid reference] should the Bidder (hereinafter called "the Contractor") be selected for award of Contract based on its tendered prices.

NOW THEREFORE we hereby warrant that the funds allocated under this dedicated Revolving Line of Credit will be made available to the Contractor, upon his request and up to the limits stated above, for the contractor's exclusive use in executing the above referenced Works. We further warrant that this guaranteed Revolving Line of Credit will be maintained until such time as the Works are completed and taken over by the Secretary, Urban Improvement Trust, Todarmal Marg, Ajmer-305001, Rajasthan, (hereinafter called "the Employer").

The Bank hereby binds himself, its successors and assigns by these presents.

Unless the Bidder's Bid is not accepted for award of Contract, this Guarantee will remain in force up to and including the date of completion of the Works and issue of the Works Contract Completion Certificate.

DATE _____ SIGNATURE OF THE BANK _____
WITNESS _____ SEAL _____

[SIGNATURE, NAME, AND ADDRESS]

- Deleted:** Bisalpur Water Supply Project, Transmission System Works
- Deleted:** BSL/TKY/01
- Deleted:** Bisalpur Water Supply Project, Transmission System Component.
- Formatted:** Tabs: -1.63", Left + Not at -1"
- Deleted:** Bisalpur Water Supply Project, Transmission System Component
- Deleted:** Contract Package No, BSL/TKY/01

Urban Improvement Trust, Ajmer

Signature of Contractor

FORM OF CONTRACT AGREEMENT

WORKS

This Agreement made this ____ day of _____, 2010, between the local self Department of the Government of Rajasthan, represented by the **Secretary, Urban Improvement Trust, Todarmal Marg, Ajmer-305001, Rajasthan**, (hereinafter called "the Employer") of the one part and _____ of _____ (hereinafter called "the Contractor") of the other part.

Deleted: Urban Development

Whereas the Employer desires that the Works known as the works reference, (Contract No. reference) should be designed and executed by the Contractor, and has accepted a Bid by the Contractor for the design, execution testing and commissioning and completion of such Works and the remedying of any defects therein.

Deleted: Bisalpur Water Supply Project, Transmission System Works

Deleted: BSL/TKY/01

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement:
 - (a) The Letter of Acceptance dated _____
 - (b) The scope of work and specifications
 - (c) The Addenda nos. _____
 - (d) The Bid dated _____
 - (e) The Conditions of Contract,
 - (f) The technical submissions, and
 - (g) The Contractor's Proposal.
3. 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 design, execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the design, execution and completion of the Works and the remedying of defects therein, the **Works 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.

Deleted: Employer's Requirements

Deleted: (Parts I and II)

Deleted: Completed Schedules

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written in accordance with their respective laws.

Authorized signature of Contractor
SEAL
(if any)

Authorized signature of Employer
SEAL
(if any)

in the presence of:
Name _____

in the presence of:
Name _____

Signature _____

Signature _____

Address _____

Address _____

Urban Improvement Trust, Ajmer

Signature of Contractor

2.4
2.5 FORM OF SECURITY DEPOSIT
2.6 (BANK GUARANTEE)

To: Urban Development Department of the Government of Rajasthan
Represented by the:

Secretary
Urban Improvement Trust,
Todarmal Marg,
Ajmer, Rajasthan, India

WHEREAS _____ [name and address of Contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. bid reference dated 2010 to execute the reference of works (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;
AND WHEREAS WE HAVE AGREED TO GIVE THE CONTRACTOR SUCH A BANK GUARANTEE;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ [amount of Guarantee]² _____ [in words], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

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

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

This guarantee shall be valid until the date of issue of the Final Contract Completion Certificate.

Yours truly, _____
Signature and seal of the Guarantor: _____
Name of Bank/Financial Institution: _____
Address: _____
Date: _____

²An amount to be inserted by the Guarantor, representing 10% of the Contract Price and denominated in Indian Rupees or US Dollars or Euro as specified in the Contract.

Urban Improvement Trust, Ajmer

Signature of Contractor

Deleted: BSL/TKY/01
Deleted: 2005
Deleted: Bisalpur Water Supply Project, Transmission System Works
Deleted: _____
FORM OF ADVANCE PAYMENT SECURITY (BANK GUARANTEE) TO: URBAN DEVELOPMENT DEPARTMENT OF THE GOVERNMENT OF RAJASTHAN REPRESENTED BY THE: PROJECT DIRECTOR RAJASTHAN URBAN INFRASTRUCTURE DEVELOPMENT PROJECT AVS BUILDING, JAWAHAR CIRCLE, MALVIYA NAGAR JAIPUR, RAJASTHAN, INDIA REF: . BISALPUR WATER SUPPLY PROJECT, TRANSMISSION SYSTEM WORKS CONTRACT NO. BSL/TKY/01, DATED _____, 2005 GENTLEMEN: IN ACCORDANCE WITH THE PROVISIONS OF THE CONDITIONS OF CONTRACT, SUB-CLAUSE 13.2 ("ADVANCE PAYMENT") OF THE ABOVE MENTIONED CONTRACT, [NAME AND ADDRESS OF CONTRACTOR] (HEREINAFTER CALLED "THE CONTRACTOR") SHALL DEPOSIT WITH PROJECT DIRECTOR, RAJASTHAN URBAN INFRASTRUCTURE DEVELOPMENT PROJECT, AVS BUILDING, JAWAHAR CIRCLE, MALVIYA NAGAR, JAIPUR, RAJASTHAN, A BANK GUARANTEE TO GUARANTEE HIS PROPER AND FAITHFUL PERFORMANCE UNDER THE SAID CLAUSE OF THE CONTRACT IN AN AMOUNT OF _____ [AMOUNT OF GUARANTEE]8 _____ [IN WORDS]. WE, THE [BANK OR FINANCIAL INSTITUTION], AS INSTRUCTED BY THE CONTRACTOR, AGREE UNCONDITIONALLY AND IRREVOCABLY TO GUARANTEE AS PRIMARY OBLIGATORY AND NOT AS SURETY MERELY, THE PAYMENT TO PROJECT DIRECTOR, RAJASTHAN URBAN INFRASTRUCTURE DEVELOPMENT PROJECT, ON ITS FIRST DEMAND WITHOUT WHATSOEVER RIGHT OF OBJECTION ON OUR PART AND WITHOUT ITS FIRST CLAIM [... [2]

GOVERNMENT OF RAJASTHAN

Formatted: Font: 24 pt, Bold,
Complex Script Font: 24 pt, Small
caps, Expanded by 3 pt

Formatted: Centered

URBAN IMPROVEMENT TRUST : AJMER

CONSTRUCTION OF G+3 HOUSES UNDER AFORDABLE HOUSEING POLICY-2009
MODEL NO. 1

BID DOCUMENT FOR

Formatted: Centered

**Construction of 80 Nos. LIG (G+3) and 56 no. MIG-A dwelling units (G+3)
Houses under affordable Housing scheme at Lohagal khasra no. 832 Ajmer.**

(Under percentage rate basis)

CONTRACT PACKAGE NO : 01

NIT NO. UIT/30056-85/46/2011-12

SECTION IX:

Formatted: Bullets and Numbering

APPENDIX

TO

BID

Urban Improvement Trust, Ajmer

Signature of Contractor

SECTION IX: FORM OF TECHNICAL PROPOSAL AND APPENDIX TO BID

FORM OF TECHNICAL PROPOSAL

Name of Contract: _____

To: Local Self Government Department of the Government of Rajasthan
Represented by the:
Secretary,
Urban Improvement Trust,
Todarmal Marg, Ajmer-305001, Rajasthan,

Gentlemen:

We have examined the Conditions of Contract, Employer’s Requirements, Schedules, Addenda Nos. _____ and the matters set out in the Appendix hereto. We have understood and checked these documents and have not found any errors in them. We accordingly offer to design, execute, complete and operate and maintain the said Works and remedy any defects, fit for its purpose in conformity with these documents and the enclosed Proposal.

We further undertake, if invited to do so by you, and at our own cost, to attend a clarification meeting at a place of your choice, for the purpose of reviewing our Technical Proposal and duly noting all amendments and additions thereto, and noting omissions therefrom that you may require, and to submit a supplementary price proposal if the amendments, additions and omissions that you require would alter our price proposal as submitted with our bid.

We accept your suggestion for the appointment of the State’s Standing Committee for Settlement of Disputes as the Dispute Adjudication Board for this Contract, as set out in Section 4, Sub Clause 23. [*- Please Check the Footnote]

We are, Gentlemen

Yours faithfully

Signature _____ in the capacity _____ duly authorized to sign bids for and on behalf of _____

Address:

* If the Bidder does not accept, this paragraph may be deleted and replaced by:
We do not accept your suggestions for the appointment of the Dispute Adjudication Board, and proposed that we jointly agreed upon the appointment after the Effective Date (unless previously agreed) in accordance with Section 4, Sub-Clause 23 of the Special Conditions of Contract. [OPTIONAL: Our Proposal includes our suggestions for this appointment, but these suggestions are not conditions of this Bid.]

Urban Improvement Trust, Ajmer

Signature of Contractor

APPENDIX TO BID (TECHNICAL PROPOSAL)

[Note: With the exception of the items for which the Employer's requirements have been inserted, the following information must be completed before the Bid is submitted]

Description	Sub-Clause & Section nos.	Contract Data
	1.1 Section 2	Local Self Government Department Government of Rajasthan Represented by the: Secretary, Urban Improvement Trust, Todarmal Marg, Ajmer-305001, Rajasthan, Phone: (91-145) 2627748-49 Fax: (91-145) 2620126
Contractor's Name and Address		<i>(To be completed by the Bidder before the Bid is submitted)</i>
Name and Address of the Employer's Representative	27A Section 4	Executive Engineer UIT Ajmer
Start Date		The 10 th day after the date of issuance of the written order to commence the work or such other Start Date as may be specified in the Notice to Proceed.
Time for Completion of the Works	1.2 Section 2	Within 11 (Eleven) months of the Start Date
Defects Liability Period for the Works	27 Section 4	Up to the end of a period of 05 Years after completion of the Works provided that final bill has been paid.
Electronic Transmission Systems		Facsimile transmissions will be an acceptable form of written electronic transmission, provided that it is confirmed within 7 days by receipt of the original signed letter.
Submission of Construction Documents	Section 4	Submission of construction documents shall commence within 28 days after the Commencement Date.
Time for Access to the Site	Section 5	The Employer shall grant the Contractor right of access to, and possession of, the Site within 14 days after the Commencement Date.
Amount of Security Deposit	1 Section 3	10% (ten percent) of the value of the progressive payments. (also from O&M payments)
Refund of Security Deposit	37.1 Section 4	After satisfactory completion of Defect Liability Period provided that the final bill has been paid. S.D. refund on following pattern From date of completion after 1st year - 10.0% of deducted amount. From date of completion after 2nd year - 10.0% of deducted amount. From date of completion after 3rd year - 10.0% of deducted amount. From date of completion after 4th year - 10.0% of deducted amount.

Urban Improvement Trust, Ajmer

Signature of Contractor

		From date of completion after Vth year - 60.0% of deducted amount.
Description	Sub- Clause & Section nos.	Contract Data
Security Deposit	1.0 Section4	<p>1.1 Within Ten (Ten) days of the date of issue of the Letter of Acceptance, the successful bidder shall furnish a Security Deposit in the amount of 10% (ten percent) of the Contract Price before or at the time of executing the agreement.</p> <p>1.2 The Security Deposit shall be in the form of unconditional Bank Guarantee & shall be in the name of Secretary, Urban Improvement Trust, Ajmer, issued from any branch of Nationalized /Scheduled Bank. Such Bank Guarantee, if invoked, shall be encashable when presented in specified Branch Office Located at Ajmer. However, during execution of the work if cost of work exceeds as shown at the time of furnishing bank guarantee, balance security deposit shall be deducted @ 10 % from the Running Account Bills.</p> <p>1.3 <u>"The security deposit @ 10% of the gross amount of the running bill shall be deducted from each running bill and shall be refunded as per rules on completion of the contract as per terms and conditions. The earnest money deposited shall however be adjusted while deducting security deposit from the first running bill of the contractor. There will be no maximum limit of security deposit."</u></p>
Time for Submission of Programme	22.2 Section 4	The Contractor shall submit the construction program to the Employer's Representative within 28 days after the Effective Date.
Normal Working Hours		Normal hours during which work will be permitted to be carried out at the Site shall be between 06:00 hrs to 19:00 hrs, Monday to Saturday. The Contractor shall be responsible to obtain the written consent of the Employer's Representative if he desires to work outside these times during the execution of work till wet run test.
Compensation for Delay	2 Section 3	Delay up to one fourth period of the prescribed time span – 2.5% of the work remained unexecuted on the last day of 1/4th time span.
		Delay exceeding one fourth period but not exceeding half of the prescribed time span – 5% of the work remained unexecuted on the last day of 1/2 time span.
		Delay exceeding half of the prescribed but not

Formatted: Normal, No bullets or numbering

Formatted: Font: (Default) Arial, 10 pt, Complex Script Font: Arial

Formatted: Font: (Default) Arial, Complex Script Font: Arial

Urban Improvement Trust, Ajmer

Signature of Contractor

		exceeding three fourth of the time span – 7.5% of the work remained unexecuted on the last day of 3/4th time span
		Delay exceeding three fourth of the prescribed time span – 10% of the work remained unexecuted on the last day of the contracted full period.

Description	Sub-Clause & Section nos.	Contract Data
Limit of Compensation for Delay	2 Section 3	The limit of compensation shall be 10% (ten percent) of the Contract Price (excluding O & M cost).
Amount of Insurance for Works and Contractors equipment	71 Section 4	The Contractor shall take out and maintain, for the duration of the Contract Period, professional indemnity insurance in the amount of not less than Rs. 50,00,000/= (Rupees fifty lakhs only).
Amount of Third Party Insurance	71 Section 4	The Contractor shall take out and maintain, for the duration of the Contract Period, third party liability insurance in an amount of not less than Rs 50,00,000/-.(Rupees fifty lakhs only) per occurrence or event with coverage for not less than 4 (four) occurrences or events. Each time any event occurs or a claim is made under such insurance policy, the Contractor shall immediately extend the coverage by adding an additional event so that the minimum coverage of four events is maintained in force at all times.
Period for Submission of Evidence of Insurance	71 Section 4	The Contractor shall provide the Employer with evidence that the insurances required under Clause 18 have been effected not later than the Commencement Date.
Period of for submission of Copies of the Policies	71 Section 4	The Contractor shall provide the Employer with copies of the policies for the insurances described in Sub – Clauses 18.2 and 18.3 within the 14 (Fourteen) days after the Commencement Date.
Provisional Sum		As specified in Price Proposal.
Minimum Amount of Bill payable to the contractor	Clause 7.1 of section 4	Monthly payments shall be made as certified by the Engineer-in- charge.

Urban Improvement Trust, Ajmer

Signature of Contractor

Price Variation	45 Section 3	Price variation is applicable
Milestone Execution Plan		The work Plan submitted by the contractor should be in the line with this Mile Stone Chart.
Labour Cess	14.4 Section I	1% labour cess will be deducted with other duties & taxes

Initials of Signatory of Bid _____

Urban Improvement Trust, Ajmer

Signature of Contractor

Page 296: [1] Deleted	user	3/13/2007 1:29:00 AM
Form of Advance Payment Security		8
Form of Domestic Preference Security		9
Certificate under Notification No. 108/95		10
Certificate under Notification No. 84/97		11

Page 300: [2] Deleted user 3/13/2007 1:28:00 AM
 -----Page Break-----

FORM OF ADVANCE PAYMENT SECURITY

(BANK GUARANTEE)

**TO: URBAN DEVELOPMENT DEPARTMENT OF THE GOVERNMENT OF RAJASTHAN
 REPRESENTED BY THE:
 PROJECT DIRECTOR
 RAJASTHAN URBAN INFRASTRUCTURE DEVELOPMENT PROJECT
 AVS BUILDING, JAWAHAR CIRCLE, MALVIYA NAGAR
 JAIPUR, RAJASTHAN, INDIA**

**REF: BISALPUR WATER SUPPLY PROJECT, TRANSMISSION SYSTEM WORKS
 CONTRACT NO. BSL/TKY/01, DATED _____, 2005**

GENTLEMEN:

**IN ACCORDANCE WITH THE PROVISIONS OF THE CONDITIONS OF CONTRACT, SUB-
 CLAUSE 13.2 ("ADVANCE PAYMENT")¹ OF THE ABOVE MENTIONED CONTRACT,
 _____ [NAME AND ADDRESS OF CONTRACTOR]
 (HEREINAFTER CALLED "THE CONTRACTOR") SHALL DEPOSIT WITH PROJECT
 DIRECTOR, RAJASTHAN URBAN INFRASTRUCTURE DEVELOPMENT PROJECT,
 AVS BUILDING, JAWAHAR CIRCLE, MALVIYA NAGAR, JAIPUR, RAJASTHAN, A
 BANK GUARANTEE TO GUARANTEE HIS PROPER AND FAITHFUL
 PERFORMANCE UNDER THE SAID CLAUSE OF THE CONTRACT IN AN AMOUNT
 OF _____ [AMOUNT OF GUARANTEE]²
 _____ [IN WORDS].**

**WE, THE _____ [BANK OR FINANCIAL INSTITUTION], AS
 INSTRUCTED BY THE CONTRACTOR, AGREE UNCONDITIONALLY AND
 IRREVOCABLY TO GUARANTEE AS PRIMARY OBLIGATORY AND NOT AS
 SURETY MERELY, THE PAYMENT TO PROJECT DIRECTOR, RAJASTHAN URBAN
 INFRASTRUCTURE DEVELOPMENT PROJECT, ON ITS FIRST DEMAND WITHOUT
 WHATSOEVER RIGHT OF OBJECTION ON OUR PART AND WITHOUT ITS FIRST
 CLAIM TO THE CONTRACTOR, IN THE AMOUNT NOT EXCEEDING
 _____ [AMOUNT OF GUARANTEE] [IN
 WORDS].**

**WE FURTHER AGREE THAT NO CHANGE OR ADDITION TO OR OTHER MODIFICATION
 OF THE TERMS OF THE CONTRACT OR OF THE WORKS TO BE PERFORMED
 THEREUNDER OR OF ANY OF THE CONTRACT DOCUMENTS WHICH MAY BE
 MADE BETWEEN URBAN DEVELOPMENT DEPARTMENT OF THE GOVERNMENT**

1 Replace the phrase "Sub-Clause 13.2, Advance Payment" with the phrase "Sub-Clause 13.4, Interim Valuation" for Securities issued for the purposes of making advance payments for procurement of MS Plates or MS Coils.

2 An amount is to be inserted by the Bank or financial institution representing the amount of the Advance Payment and denominated in the currency(ies) of the Advance Payment as specified in the Contract.

OF RAJASTHAN, REPRESENTED BY THE PROJECT DIRECTOR, RUIDP, AND THE CONTRACTOR SHALL IN ANY WAY RELEASE US FROM ANY LIABILITY UNDER THIS GUARANTEE, AND WE HEREBY WAIVE NOTICE OF ANY SUCH CHANGE, ADDITION OR MODIFICATION.

THIS GUARANTEE SHALL REMAIN VALID AND IN FULL EFFECT FROM THE DATE OF THE ADVANCE PAYMENT UNDER THE CONTRACT UNTIL THE PROJECT DIRECTOR, RAJASTHAN URBAN INFRASTRUCTURE DEVELOPMENT PROJECT, RECEIVES FULL REPAYMENT OF THE SAME AMOUNT FROM THE CONTRACTOR.'

YOURS TRULY,

SIGNATURE AND SEAL OF THE GUARANTOR:

NAME OF BANK/FINANCIAL INSTITUTION:

ADDRESS:

DATE:
