

above are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,
- (iv) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- (v) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2 Notice of Force Majeure

If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.

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

19.3 Duty to Minimise Delay

Each Party shall at all times use all reasonable endeavours to minimise any delay in the performance of the Contract as a result of Force Majeure.

A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

19.4 Consequences of Force Majeure

If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force Majeure], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- (b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [Definition of Force Majeure] and, in the case of sub-paragraphs (ii) to (iv), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destructed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment].

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

19.5 Force Majeure Affecting Subcontractor

If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.

19.6 Optional Termination, Payment and

If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 19.2 [Notice of Force

Release

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

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

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

19.7 Release from Performance

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

- (a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and
- (b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under Sub-Clause 19.6 [Optional Termination, Payment and Release] if the Contract had been terminated under Sub-Clause 19.6.

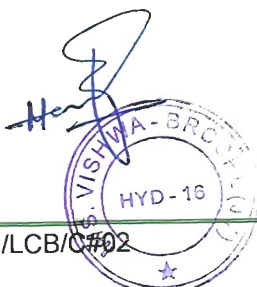
20. Claims, Disputes and Arbitration**20.1 Contractor's Claims**

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

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.

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

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Employer's liability, the Engineer may, after receiving any notice under this Sub-



Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

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

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

Within the above defined period of 42 days, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

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

If the Engineer does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Engineer and any of the Parties may refer it to the Dispute Board in accordance with Sub-Clause 20.4 [Obtaining Dispute Board's Decision].

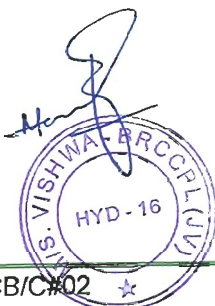
The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which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

20.2 Appointment of the Dispute Board

Disputes shall be referred to a DB for decision in accordance with Sub-Clause 20.4 [Obtaining Dispute Board's Decision]. The Parties shall appoint a DB by the date stated in the Contract Data.

The DB shall comprise, as stated in the Contract Data, either one or three suitably qualified persons ("the members"), each of whom shall be fluent in the language for communication defined in the Contract and shall be a professional experienced in the type of construction involved in the Works and with the interpretation of contractual documents. If the number is not so stated and the Parties do not agree otherwise, the DB shall comprise three persons.

If the Parties have not jointly appointed the DB 21 days before the



date stated in the Contract Data and the DB is to comprise three persons, each Party shall nominate one member for the approval of the other Party. The first two members shall recommend and the Parties shall agree upon the third member, who shall act as chairman.

However, if a list of potential members has been agreed by the Parties and is included in the Contract, the members shall be selected from those on the list, other than anyone who is unable or unwilling to accept appointment to the DB.

The agreement between the Parties and either the sole member or each of the three members shall incorporate by reference the General Conditions of Dispute Board Agreement contained in the Appendix to these General Conditions, with such amendments as are agreed between them.

The terms of the remuneration of either the sole member or each of the three members, including the remuneration of any expert whom the DB consults, shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

If at any time the Parties so agree, they may jointly refer a matter to the DB for it to give its opinion. Neither Party shall consult the DB on any matter without the agreement of the other Party.

If a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced person was required to have been nominated or agreed upon, as described in this Sub-Clause.

The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Employer or the Contractor acting alone. Unless otherwise agreed by both Parties, the appointment of the DB (including each member) shall expire when the discharge referred to in Sub-Clause 14.12 [Discharge] shall have become effective.

20.3 Failure to Agree on the Composition of the Dispute Board

If any of the following conditions apply, namely:

- (a) the Parties fail to agree upon the appointment of the sole member of the DB by the date stated in the first paragraph of Sub-Clause 20.2, [Appointment of the Dispute Board],
- (b) either Party fails to nominate a member (for approval by the other Party), or fails to approve a member nominated by the other Party, of a DB of three persons by such date,
- (c) the Parties fail to agree upon the appointment of the third member (to act as chairman) of the DB by such date, or
- (d) the Parties fail to agree upon the appointment of a replacement person within 42 days after the date on which the sole member or one of the three members declines to act or is unable to act as a result of death, disability, resignation or termination of appointment,

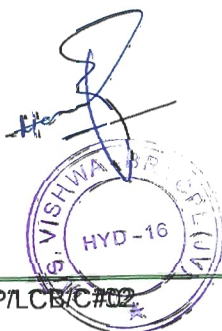
then the appointing entity or official named in the Contract Data shall, upon the request of either or both of the Parties and after due consultation with both Parties, appoint this member of the DB. This appointment shall be final and conclusive. Each Party shall be responsible for paying one-half of the remuneration of the appointing entity or official.

20.4 Obtaining Dispute Board's Decision

If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Engineer, either Party may refer the dispute in writing to the DB for its decision, with copies to the other Party and the Engineer. Such reference shall state that it is given under this Sub-Clause.

For a DB of three persons, the DB shall be deemed to have received such reference on the date when it is received by the chairman of the DB.

Both Parties shall promptly make available to the DB all such



additional information, further access to the Site, and appropriate facilities, as the DB may require for the purposes of making a decision on such dispute. The DB shall be deemed to be not acting as arbitrator(s).

Within 84 days after receiving such reference, or within such other period as may be proposed by the DB and approved by both Parties, the DB shall give its decision, which shall be reasoned and shall state that it is given under this Sub-Clause. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract.

If either Party is dissatisfied with the DB's decision, then either Party may, within 28 days after receiving the decision, give notice to the other Party of its dissatisfaction and intention to commence arbitration. If the DB fails to give its decision within the period of 84 days (or as otherwise approved) after receiving such reference, then either Party may, within 28 days after this period has expired, give notice to the other Party of its dissatisfaction and intention to commence arbitration.

In either event, this notice of dissatisfaction shall state that it is given under this Sub-Clause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Except as stated in Sub-Clause 20.7 [Failure to Comply with Dispute Board's Decision] and Sub-Clause 20.8 [Expiry of Dispute Board's Appointment], neither Party shall be entitled to commence arbitration of a dispute unless a notice of dissatisfaction has been given in accordance with this Sub-Clause.

If the DB has given its decision as to a matter in dispute to both Parties, and no notice of dissatisfaction has been given by either Party within 28 days after it received the DB's decision, then the decision shall become final and binding upon both Parties.

20.5 Amicable Settlement

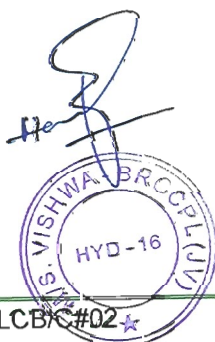
Where notice of dissatisfaction has been given under Sub-Clause 20.4 above, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, arbitration may be commenced on or after the fifty-sixth day after the day on which a notice of dissatisfaction and intention to commence arbitration was given, even if no attempt at amicable settlement has been made.

20.6 Arbitration

Unless indicated otherwise in the Particular Conditions, any dispute not settled amicably and in respect of which the DB's decision (if any) has not become final and binding shall be finally settled by arbitration. Unless otherwise agreed by both Parties:

- (a) For contracts with foreign contractors, international arbitration with proceedings administered by the international arbitration institution appointed in the Contract Data, conducted in accordance with the rules of arbitration of the appointed institution, if any, or in accordance with UNCITRAL arbitration rules, at the choice of the appointed institution,
- (b) the place of arbitration shall be the city where the headquarters of the appointed arbitration institution is located,
- (c) the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [Law and Language], and
- (d) For contracts with domestic contractors, arbitration with proceedings conducted in accordance with the laws of the Employer's country.

The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, and any decision of the DB, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Engineer from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.



Neither Party shall be limited in the proceedings before the arbitrators to the evidence or arguments previously put before the DB to obtain its decision, or to the reasons for dissatisfaction given in its notice of dissatisfaction. Any decision of the DB shall be admissible in evidence in the arbitration.

Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, the Engineer and the DB shall not be altered by reason of any arbitration being conducted during the progress of the Works.

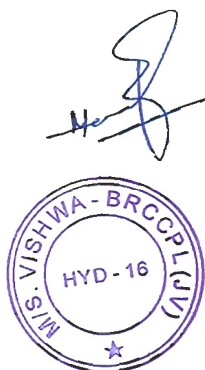
20.7 Failure to Comply with Dispute Board's Decision

In the event that a Party fails to comply with a final and binding DB decision, then the other Party may, without prejudice to any other rights it may have, refer the failure itself to arbitration under Sub-Clause 20.6 [Arbitration]. Sub-Clause 20.4 [Obtaining Dispute Board's Decision] and Sub-Clause 20.5 [Amicable Settlement] shall not apply to this reference.

20.8 Expiry of Dispute Board's Appointment

If a dispute arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works and there is no DB in place, whether by reason of the expiry of the DB's appointment or otherwise:

- (a) Sub-Clause 20.4 [Obtaining Dispute Board's Decision] and Sub-Clause 20.5 [Amicable Settlement] shall not apply, and
- (b) the dispute may be referred directly to arbitration under Sub-Clause 20.6 [Arbitration].




Chief Executive Officer
Guwahati Metropolitan Dev. Authority

APPENDIX: DISPUTE BOARD**General Conditions of Dispute Board Agreement**

- 1. Definitions** Each "Dispute Board Agreement" is a tripartite agreement by and between:
- (a) the "Employer";
 - (b) the "Contractor"; and
 - (c) the "Member" who is defined in the Dispute Board Agreement as being:
 - (i) the sole member of the "DB" and, where this is the case, all references to the "Other Members" do not apply, or
 - (ii) one of the three persons who are jointly called the "DB" (or "Dispute Board") and, where this is the case, the other two persons are called the "Other Members."

The Employer and the Contractor have entered (or intend to enter) into a contract, which is called the "Contract" and is defined in the Dispute Board Agreement, which incorporates this Appendix. In the Dispute Board Agreement, words and expressions which are not otherwise defined shall have the meanings assigned to them in the Contract.

- 2. General Provisions** Unless otherwise stated in the Dispute Board Agreement, it shall take effect on the latest of the following dates:
- (a) the Commencement Date defined in the Contract,
 - (b) when the Employer, the Contractor and the Member have each signed the Dispute Board Agreement, or
 - (c) when the Employer, the Contractor and each of the Other Members (if any) have respectively each signed a dispute board agreement.

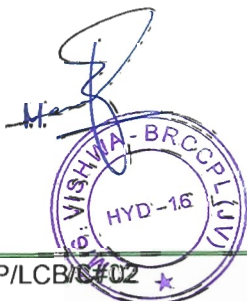
This employment of the Member is a personal appointment. At any time, the Member may give not less than 70 days' notice of resignation to the Employer and to the Contractor, and the Dispute Agreement shall terminate upon the expiry of this period.

- 3. Warranties** The Member warrants and agrees that he/she is and shall be impartial and independent of the Employer, the Contractor and the Engineer. The Member shall promptly disclose, to each of them and to the Other Members (if any), any fact or circumstance which might appear inconsistent with his/her warranty and agreement of impartiality and independence.

When appointing the Member, the Employer and the Contractor relied upon the Member's representations that he/she is:

- (a) experienced in the work which the Contractor is to carry out under the Contract,
- (b) experienced in the interpretation of contract documentation, and
- (c) fluent in the language for communications defined in the Contract.

- 4. General Obligations of the Member** The Member shall:
- (a) have no interest financial or otherwise in the Employer, the Contractor or Engineer, nor any financial interest in the Contract except for payment under the Dispute Board Agreement;
 - (b) not previously have been employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except in such circumstances as were disclosed in writing to the Employer and the Contractor before they signed the Dispute Board Agreement;
 - (c) have disclosed in writing to the Employer, the Contractor and the Other Members (if any), before entering into the Dispute Board Agreement and to his/her best knowledge and recollection, any professional or personal relationships with any director, officer or employee of the Employer, the Contractor or the Engineer, and any previous involvement in the overall project of which the Contract forms part;



[Handwritten Signature]
 Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

- (d) not, for the duration of the Dispute Board Agreement, be employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except as may be agreed in writing by the Employer, the Contractor and the Other Members (if any);
- (e) comply with the annexed procedural rules and with Sub-Clause 20.4 of the Conditions of Contract;
- (f) not give advice to the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel concerning the conduct of the Contract, other than in accordance with the annexed procedural rules;
- (g) not while a Member enter into discussions or make any agreement with the Employer, the Contractor or the Engineer regarding employment by any of them, whether as a consultant or otherwise, after ceasing to act under the Dispute Board Agreement;
- (h) ensure his/her availability for all site visits and hearings as are necessary;
- (i) become conversant with the Contract and with the progress of the Works (and of any other parts of the project of which the Contract forms part) by studying all documents received which shall be maintained in a current working file;
- (j) treat the details of the Contract and all the DB's activities and hearings as private and confidential, and not publish or disclose them without the prior written consent of the Employer, the Contractor and the Other Members (if any); and
- (k) be available to give advice and opinions, on any matter relevant to the Contract when requested by both the Employer and the Contractor, subject to the agreement of the Other Members (if any).

5. General Obligations of the Employer and the Contractor

The Employer, the Contractor, the Employer's Personnel and the Contractor's Personnel shall not request advice from or consultation with the Member regarding the Contract, otherwise than in the normal course of the DB's activities under the Contract and the Dispute Board Agreement. The Employer and the Contractor shall be responsible for compliance with this provision, by the Employer's Personnel and the Contractor's Personnel respectively.

The Employer and the Contractor undertake to each other and to the Member that the Member shall not, except as otherwise agreed in writing by the Employer, the Contractor, the Member and the Other Members (if any):

- (a) be appointed as an arbitrator in any arbitration under the Contract;
- (b) be called as a witness to give evidence concerning any dispute before arbitrator(s) appointed for any arbitration under the Contract; or
- (c) be liable for any claims for anything done or omitted in the discharge or purported discharge of the Member's functions, unless the act or omission is shown to have been in bad faith.

The Employer and the Contractor hereby jointly and severally indemnify and hold the Member harmless against and from claims from which he is relieved from liability under the preceding paragraph.

Whenever the Employer or the Contractor refers a dispute to the DB under Sub-Clause 20.4 of the Conditions of Contract, which will require the Member to make a site visit and attend a hearing, the Employer or the Contractor shall provide appropriate security for a sum equivalent to the reasonable expenses to be incurred by the Member. No account shall be taken of any other payments due or paid to the Member.

6. Payment

The Member shall be paid as follows, in the currency named in the Dispute Board Agreement:

- (a) a retainer fee per calendar month, which shall be considered as payment in full for:
 - (i) being available on 28 days' notice for all site visits and hearings;



- (ii) becoming and remaining conversant with all project developments and maintaining relevant files;
- (iii) all office and overhead expenses including secretarial services, photocopying and office supplies incurred in connection with his duties; and
- (iv) all services performed hereunder except those referred to in sub-paragraphs (b) and (c) of this Clause.

The retainer fee shall be paid with effect from the last day of the calendar month in which the Dispute Board Agreement becomes effective; until the last day of the calendar month in which the Taking-Over Certificate is issued for the whole of the Works.

With effect from the first day of the calendar month following the month in which the Taking-Over Certificate is issued for the whole of the Works, the retainer fee shall be reduced by one third. This reduced fee shall be paid until the first day of the calendar month in which the Member resigns or the Dispute Board Agreement is otherwise terminated.

- (b) a daily fee which shall be considered as payment in full for:
 - (i) each day or part of a day up to a maximum of two days' travel time in each direction for the journey between the Member's home and the site, or another location of a meeting with the Other Members (if any);
 - (ii) each working day on Site visits, hearings or preparing decisions; and
 - (iii) each day spent reading submissions in preparation for a hearing.
- (c) all reasonable expenses including necessary travel expenses (air fare in less than first class, hotel and subsistence and other direct travel expenses) incurred in connection with the Member's duties, as well as the cost of telephone calls, courier charges, faxes and telexes: a receipt shall be required for each item in excess of five percent of the daily fee referred to in sub-paragraph (b) of this Clause;
- (d) any taxes properly levied in the Country on payments made to the Member (unless a national or permanent resident of the Country) under this Clause 6.

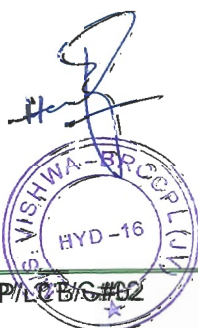
The retainer and daily fees shall be as specified in the Dispute Board Agreement. Unless it specifies otherwise, these fees shall remain fixed for the first 24 calendar months, and shall thereafter be adjusted by agreement between the Employer, the Contractor and the Member, at each anniversary of the date on which the Dispute Board Agreement became effective.

If the parties fail to agree on the retainer fee or the daily fee, the appointing entity or official named in the Contract Data shall determine the amount of the fees to be used.

The Member shall submit invoices for payment of the monthly retainer and air fares quarterly in advance. Invoices for other expenses and for daily fees shall be submitted following the conclusion of a site visit or hearing. All invoices shall be accompanied by a brief description of activities performed during the relevant period and shall be addressed to the Contractor.

The Contractor shall pay each of the Member's invoices in full within 56 calendar days after receiving each invoice and shall apply to the Employer (in the Statements under the Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with the Contract.

If the Contractor fails to pay to the Member the amount to which he/she is entitled under the Dispute Board Agreement, the Employer shall pay the amount due to the Member and any other amount which may be required to maintain the operation of the DB; and without prejudice to the Employer's rights or remedies. In addition to all other rights arising from this default, the Employer shall be entitled to reimbursement of all sums paid in excess of one-half of these payments, plus all costs of recovering these sums and financing charges calculated at the rate specified in Sub-



Clause 14.8 of the Conditions of Contract.

If the Member does not receive payment of the amount due within 70 days after submitting a valid invoice, the Member may (i) suspend his/her services (without notice) until the payment is received, and/or (ii) resign his/her appointment by giving notice under Clause 7.

7. Termination

At any time: (i) the Employer and the Contractor may jointly terminate the Dispute Board Agreement by giving 42 days' notice to the Member; or (ii) the Member may resign as provided for in Clause 2.

If the Member fails to comply with the Dispute Board Agreement, the Employer and the Contractor may, without prejudice to their other rights, terminate it by notice to the Member. The notice shall take effect when received by the Member.

If the Employer or the Contractor fails to comply with the Dispute Board Agreement, the Member may, without prejudice to his other rights, terminate it by notice to the Employer and the Contractor. The notice shall take effect when received by them both.

Any such notice, resignation and termination shall be final and binding on the Employer, the Contractor and the Member. However, a notice by the Employer or the Contractor, but not by both, shall be of no effect.

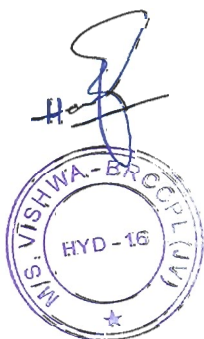
8. Default of the Member

If the Member fails to comply with any of his obligations under Clause 4 (a) - (d) above, he shall not be entitled to any fees or expenses hereunder and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses received by the Member and the Other Members (if any), for proceedings or decisions (if any) of the DB which are rendered void or ineffective by the said failure to comply.

If the Member fails to comply with any of his obligations under Clause 4 (e) - (k) above, he shall not be entitled to any fees or expenses hereunder from the date and to the extent of the non-compliance and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses already received by the Member, for proceedings or decisions (if any) of the DB which are rendered void or ineffective by the said failure to comply.

9. Disputes

Any dispute or claim arising out of or in connection with this Dispute Board Agreement, or the breach, termination or invalidity thereof, shall be finally settled by institutional arbitration. If no other arbitration institute is agreed, the arbitration shall be conducted under the Rules of Arbitration of the International Chamber of Commerce by one arbitrator appointed in accordance with these Rules of Arbitration.



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Annex: Procedural Rules

Unless otherwise agreed by the Employer and the Contractor, the DB shall visit the site at intervals of not more than 140 days, including times of critical construction events, at the request of either the Employer or the Contractor. Unless otherwise agreed by the Employer, the Contractor and the DB, the period between consecutive visits shall not be less than 70 days, except as required to convene a hearing as described below.

The timing of and agenda for each site visit shall be as agreed jointly by the DB, the Employer and the Contractor, or in the absence of agreement, shall be decided by the DB. The purpose of site visits is to enable the DB to become and remain acquainted with the progress of the Works and of any actual or potential problems or claims, and, as far as reasonable, to endeavour to prevent potential problems or claims from becoming disputes.

Site visits shall be attended by the Employer, the Contractor and the Engineer and shall be co-ordinated by the Employer in co-operation with the Contractor. The Employer shall ensure the provision of appropriate conference facilities and secretarial and copying services. At the conclusion of each site visit and before leaving the site, the DB shall prepare a report on its activities during the visit and shall send copies to the Employer and the Contractor.

The Employer and the Contractor shall furnish to the DB one copy of all documents which the DB may request, including Contract documents, progress reports, variation instructions, certificates and other documents pertinent to the performance of the Contract. All communications between the DB and the Employer or the Contractor shall be copied to the other Party. If the DB comprises three persons, the Employer and the Contractor shall send copies of these requested documents and these communications to each of these persons.

If any dispute is referred to the DB in accordance with Sub-Clause 20.4 of the Conditions of Contract, the DB shall proceed in accordance with Sub-Clause 20.4 and these Rules. Subject to the time allowed to give notice of a decision and other relevant factors, the DB shall:

- (a) act fairly and impartially as between the Employer and the Contractor, giving each of them a reasonable opportunity of putting his case and responding to the other's case, and
- (b) adopt procedures suitable to the dispute, avoiding unnecessary delay or expense.

The DB may conduct a hearing on the dispute, in which event it will decide on the date and place for the hearing and may request that written documentation and arguments from the Employer and the Contractor be presented to it prior to or at the hearing.

Except as otherwise agreed in writing by the Employer and the Contractor, the DB shall have power to adopt an inquisitorial procedure, to refuse admission to hearings or audience at hearings to any persons other than representatives of the Employer, the Contractor and the Engineer, and to proceed in the absence of any party who the DB is satisfied received notice of the hearing; but shall have discretion to decide whether and to what extent this power may be exercised.

The Employer and the Contractor empower the DB, among other things, to:

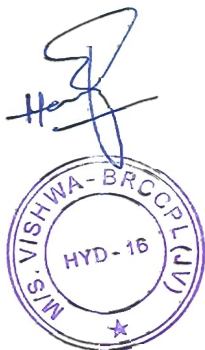
- (a) establish the procedure to be applied in deciding a dispute,
- (b) decide upon the DB's own jurisdiction, and as to the scope of any dispute referred to it,
- (c) conduct any hearing as it thinks fit, not being bound by any rules or procedures other than those contained in the Contract and these Rules,
- (d) take the initiative in ascertaining the facts and matters required for a decision,
- (e) make use of its own specialist knowledge, if any,
- (f) decide upon the payment of financing charges in accordance with the Contract,
- (g) decide upon any provisional relief such as interim or conservatory measures, and
- (h) open up, review and revise any certificate, decision, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute.

The DB shall not express any opinions during any hearing concerning the merits of any arguments advanced by the Parties. Thereafter, the DB shall make and give its decision in accordance with Sub-Clause 20.4, or as otherwise agreed by the Employer and the Contractor in writing. If the DB comprises three persons:

- (a) it shall convene in private after a hearing, in order to have discussions and prepare its decision;
- (b) it shall endeavour to reach a unanimous decision: if this proves impossible the applicable decision shall be made by a majority of the Members, who may require the minority Member to prepare a written report for submission to the Employer and the Contractor; and



- (c) if a Member fails to attend a meeting or hearing, or to fulfil any required function, the other two Members may nevertheless proceed to make a decision, unless:
- (i) either the Employer or the Contractor does not agree that they do so, or
 - (ii) the absent Member is the chairman and he/she instructs the other Members not to make a decision.




Chief Executive Officer
Guwahati Metropolitan Dev. Authority



VISHWA – BRCCPL (JV)



Office Address: 1-11-256/C/24, Plot No. 24, Gagan Vihar Colony, Begumpet, Hyderabad - 500 016. A.P (India)

Phone: +91 40 2776 3835 / 36 / 37 **Fax:** +91 40 2776 3082

Form FIN-5: Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans

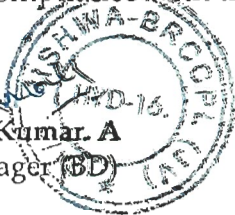
A) I, **A. Ganesh Kumar**, duly authorized by **M/s VISHWA –BRCCPL (JV)** ("Bidder") hereby certify on behalf of the Bidder and myself that information provided in the Bid Submitted by the Bidder for **Loan No.ID P-201 Guwahati Water supply project**) is true, correct and accurate to the best of my knowledge and belief. I further certify that on behalf of the Bidder that;

- i. The Bid has been prepared and submitted in compliance with the terms and conditions set forth in Guidelines for Procurement under Japanese ODA Loans ("Guidelines"); and
- ii. The Bidder has not taken any action which is or constitutes a corrupt, fraudulent, collusive or coercive practice and is not subject to any conflict of interest as stipulated in the relevant section of the Guidelines.

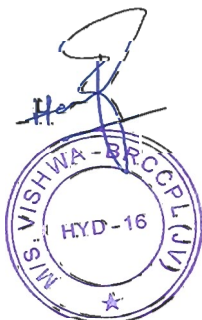
B) I certify that neither the Bidder nor any subcontractor, or expert nominated by the Bidder in the Bid has been sanctioned by any development assistance organizations.

C) I further certify on behalf of the Bidder that, if selected to undertake services in connection with the Project, we shall carry out such services in continuing compliance with the terms and conditions of the Guidelines.

Ganesh Kumar. A
Dy. Manager (BD)



Duly authorized to sign the bid and on behalf of
M/s. VISHWA-BRCCPL (JV), 1-11-256/C/24, Plot No. 24,
Gagan Vihar Colony, Begumpet, Hyderabad - 500 016. A.P (India)
Phone: +91 40 2776 3835 / 36 / 37 **Fax:** +91 40 2776 3082



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Performance Security

Bank Guarantee

[insert Bank's Name, and Address of Issuing Branch or Office]

Beneficiary: The Chief Executive Officer (CEO),
JICA ODA Loan Project,
Guwahati Metropolitan Development Authority,
3rd Floor, STATFED Building,
G.M.C.H Road, Bhangagarh,
Guwahati-781005, Assam, India.
Tel.: +91 361 2529650, Fax: +91 361 2529991

Date: _____

PERFORMANCE GUARANTEE No.: _____

We have been informed that [insert name of Contractor] (hereinafter called "the Contractor") has entered into Contract No. [insert reference number of the contract] dated [insert date of the contract] with you, for the execution of [insert name of contract and brief description of Works] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

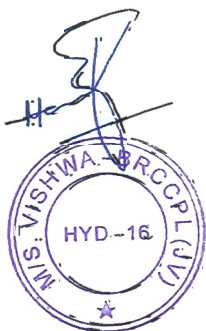
At the request of the Contractor, we [insert name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [insert amount in figures] ([amount in words]),¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by our office/branch [Name of Issuing Bank of Guwahati, Assam, India where this guarantee is encashable/payable, of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of, 2...², and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.

[signature(s)]

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




Chief Executive Officer
Guwahati Metropolitan Dev. Authority

¹ The Guarantor shall insert an amount representing the percentage of the Contract Price specified in the Contract and denominated either in the currency(cies) of the Contract or a freely convertible currency acceptable to the Employer.

² Insert the date twenty-eight days after the expected date of receiving Performance Certificate. The Employer should note that in the event of an extension of the Time for Completion and/or Defects Notification Period, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

Advance Payment Security

Demand Guarantee

[insert Bank's Name, and Address of Issuing Branch or Office]

Beneficiary: The Chief Executive Officer (CEO),
JICA ODA Loan Project,
Guwahati Metropolitan Development Authority,
3rd Floor, STATFED Building,
G.M.C.H Road, Bhangagarh,
Guwahati-781005, Assam, India.
Tel.: +91 361 2529650, Fax: +91 361 2529991

Date: _____

ADVANCE PAYMENT GUARANTEE No.: _____

We have been informed that [insert name of Contractor] (hereinafter called "the Contractor") has entered into Contract No. [insert reference number of the contract] dated [insert date of the contract] with you, for the execution of [insert name of contract and brief description of Works] (hereinafter called "the Contract").

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

At the request of the Contractor, we [insert name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [insert amount in figures] ([amount in words])¹ upon receipt **by** our office/branch [Name of Issuing Bank of Guwahati, Assam, India where this guarantee is encashable/payable, of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number [insert account number] at [insert name and address of Bank].

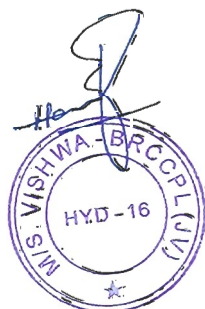
The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Contract Price has been certified for payment, or on the ___ day of ____, 2___,²

whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

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

[signature(s)]

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



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

¹ The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Employer.
² Insert the expected expiration date of the Time for Completion. The Employer should note that in the event of an extension of the Time for Completion, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

Retention Money Security

Demand Guarantee

[insert Bank's Name, and Address of Issuing Branch or Office]

Beneficiary: The Chief Executive Officer (CEO),
JICA ODA Loan Project,
Guwahati Metropolitan Development Authority,
3rd Floor, STATFED Building,
G.M.C.H Road, Bhangagarh,
Guwahati-781005, Assam, India.
Tel.: +91 361 2529650, Fax: +91 361 2529991

Date: _____

RETENTION MONEY GUARANTEE No.: _____

We have been informed that [insert name of Contractor] (hereinafter called "the Contractor") has entered into Contract No. [insert reference number of the contract] dated [insert date of the contract] with you, for the execution of [insert name of contract and brief description of Works] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment, payment of [insert the second half of the Retention Money or if the amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security] is to be made against a Retention Money guarantee.

At the request of the Contractor, we [insert name of Bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [insert amount in figures] ([amount in words])¹ upon receipt by our office/branch [Name of Issuing Bank of Guwahati, Assam, India where this guarantee is encashable/payable, of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract.

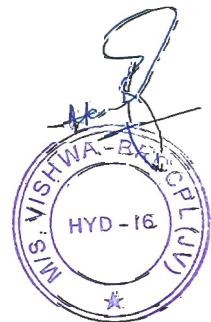
It is a condition for any claim and payment under this guarantee to be made that the payment of the second half of the Retention Money referred to above must have been received by the Contractor on its account number [insert account number] at [insert name and address of Bank].

This guarantee shall expire, at the latest, 21 days after the date when the Employer has received a copy of the Performance Certificate issued by the Engineer. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

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

[signature(s)]

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




Chief Executive Officer
Guwahati Metropolitan Dev. Authority

¹ The Guarantor shall insert an amount representing the amount of the second half of the Retention Money or if the amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and denominated either in the currency(ies) of the second half of the Retention Money as specified in the Contract, or in a freely convertible currency acceptable to the Employer.

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
1	SURVEY WORK							
1.1	Topographical survey work using Total Station as directed by the Employer's Representative, including preparation and finalization of survey drawings and CADD files .	km	3.0					
1.2	Preparation, submission and approval of Working Drawings as per the specification and as directed by Employer's Representative.	km	91.5					
Subtotal Item No. 1								
2	EARTHWORK							
2.1	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of ordinary soils such as moorum, sand, sandy silt, clay, kankar etc. or in combination. Excavation shall include the removal of roadway surfacing, including dressing, compaction of the bottoms of the excavation, shoring and strutting wherever required, dewatering whenever required, removal of the excavated soil, stockpiling and disposal of surplus excavated soil off-site as directed by the Employer's Representative.							
	Excavation will be paid for in the following segments:							
(a)	0 to 1.5 m from GL	m ³	89,070					
(b)	above 1.5 m to 3.0 m depth from GL	m ³	5,780					
(c)	above 3.0 m to 4.5 m depth from GL	m ³	1,920					
(d)	above 4.5 m depth from GL	m ³	510					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
2.2	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of ordinary rock , Excavation shall include the removal of asphalt and concrete road surfacing, including dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.							
	Excavation will be paid for in the following segments:							
(a)	0 to 1.5 m from GL	m ³	6,480					
(b)	above 1.5m to 3.0 m depth from GL	m ³	4,680					
(c)	above 3.0 m to 4.5 m depth from GL	m ³	230					
(d)	above 4.5 m depth from GL	m ³	60					
2.3	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of hard rock requiring blasting , Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.							
	Excavation will be paid for in the following segments:							
(a)	0 to 1.5 m from GL	m ³	2,140					
(b)	above 1.5m to 3.0 m depth from GL	m ³	1,210					
(c)	above 3.0 m to 4.5 m depth from GL	m ³	70					
(d)	above 4.5 m depth from GL	m ³	20					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
2.4	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of hard rock (blasting prohibited) , Excavation shall include compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.							
	Excavation will be paid for in the following segments:							
(a)	0 to 1.5 m from GL	m ³	1,100					
(b)	above 1.5m to 3.0 m depth from GL	m ³	140					
(c)	above 3.0 m to 4.5 m depth from GL	m ³	50					
(d)	above 4.5 m depth from GL	m ³	20					
2.5	Backfilling of pipe trenches, foundations, etc. with approved graded excavated soil (select granular material), excluding rock, including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative.	m ³	80,270					
2.6	Backfilling of pipe trenches, foundations, etc. with approved graded sand , including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and standard drawings and as directed by the Employer's Representative.	m ³	18,190					
2.7	Backfilling of pipe trenches, foundations, etc. with approved graded gravel , including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and standard drawings and as directed by the Employer's Representative.	m ³	8,570					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
Subtotal Item No. 2								
3	PIPELINES, SPECIALS AND APPURTENANCES							
3.1	Supplying spirally welded MS pipe with internal lining and external coating as per the specification of the following internal diameters and wall thicknesses. The rate shall include third party inspection, transportation, freight charges, loading, unloading and stacking at the project site, with the cost of all labor, material, taxes and duties.							
(a)	100 mm ID 6 mm wall thickness (at drain crossings)	m	8					
(b)	150 mm ID 6 mm wall thickness (at drain crossings)	m	21					
(c)	200 mm ID 6 mm wall thickness (at drain/railroad crossings)	m	32					
(d)	250 mm ID 6 mm wall thickness (at drain/railroad crossings)	m	98					
(e)	300 mm ID 6 mm wall thickness (at drain crossings)	m	54					
(f)	700 mm ID 6 mm wall thickness	m	5,040					
(g)	800 mm ID 8 mm wall thickness	m	1,280					
(h)	1,000 mm ID 8 mm wall thickness	m	280					
(i)	400 mm ID 20 mm thick MS pipe (at drain/road crossings)	m	20					
(j)	500 mm ID 20 mm thick MS pipe (at drain/road crossings)	m	10					
(k)	600 mm ID 20 mm thick MS pipe (at drain/road crossings)	m	10					
(l)	700 mm ID 20 mm thick MS pipe (at drain/road crossings)	m	10					
(m)	800 mm ID 20 mm thick MS pipe (at drain/road crossings)	m	10					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
3.2	Supplying all types of MS Specials plain ended, socket ended and flanged as required with internal lining and external coating as per the specification, such as bends, tees, tapers, spool pieces, blind flanges, pieces for pipe connection, valve connections, dismantling joints, anchor bolts, straps, air vent pipe, etc. of different diameters, manufactured from Fe 410 grade steel. This item includes loading, transportation to the project site, unloading and stacking, etc. complete with cost of third party inspection, material, labor, taxes and duties.	MT	30.5					
3.3	Handling, aligning, laying and jointing MS pipes and specials to correct line and level in trenches. The item includes transportation of pipes and specials from the storeyard to the project site, stacking of pipe as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports, lining and coating at joints etc. for pipe of the following diameters and thicknesses. The rate also shall include radiography of field joints, field testing, etc. as specified and shown on the drawings and specification.							
(a)	100 mm ID 6 mm wall thickness (at drain crossings)	m	8					
(b)	150 mm ID 6 mm wall thickness (at drain crossings)	m	21					
(c)	200 mm ID 6 mm wall thickness (at drain/railroad crossings)	m	32					
(d)	250 mm ID 6 mm wall thickness (at drain/railroad crossings)	m	98					
(e)	300 mm ID 6 mm wall thickness (at drain crossings)	m	54					
(f)	700 mm ID 6 mm wall thickness	m	5,040					
(g)	800 mm ID 6 mm wall thickness	m	1,280					
(h)	1,000 mm ID 8 mm wall thickness	m	280					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
3.4	Supplying DI Specials and fittings with plain, double socket, socket & flanged and double flanged end connections as required, with lining and coating as per the specification, and IS 9523 with EPDM rubber gaskets as per IS 5382 as required for successful completion of the work. This item includes third party inspection, transportation, freight, loading and unloading, stacking etc. all complete for various sizes of	MT	77.0					
3.5	Handling, aligning, laying and jointing of Employer furnished K-9 DI pipe to other pipe and to Contractor furnished fittings and specials , with EPDM rubber O-rings (as per IS 5382) and flange gaskets (as per IS 12288) and the specifications. This item includes transportation of pipes, specials and fittings from the storeyard to the project site, stacking of pipe and fittings as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipe of the following diameters							
(a)	100 mm DN DI - K9 pipe	m	21,480					
(b)	150 mm DN DI - K9 pipe	m	12,530					
(c)	200 mm DN DI - K9 pipe	m	13,060					
(d)	250 mm DN DI - K9 pipe	m	5,790					
(e)	300 mm DN DI - K9 pipe	m	13,630					
(f)	400 mm DN DI - K9 pipe	m	11,910					
(g)	500 mm DN DI - K9 pipe	m	4,820					
(h)	600 mm DN DI - K9 pipe	m	1,690					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
3.6	Supplying of PN10 HDPE (PE80) pipe including all specials confirming to IS 4984 and the specifications, including third party inspection, all taxes and duties, transportation, freight charges, loading and unloading, conveyance to the project site and stacking with cost of all labor and material for following pipe diameters.							
(a)	110 mm OD HDPE PE-80	m	1,000					
(b)	160 mm OD HDPE PE-80	m	600					
(c)	200 mm OD HDPE PE-80	m	600					
(d)	315 mm OD HDPE PE-80	m	600					
3.7	Handling, aligning, laying and jointing of PN10 HDPE (PE80) pipes with specials by butt welding / spigot joints confirming to IS and specifications. The item includes transportation of pipes and specials from store yard to site, stacking of pipe as per BIS, loading, unloading, hoisting, lowering, cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipes of following diameters.							
(a)	110 mm OD HDPE PE-80	m	1,000					
(b)	160 mm OD HDPE PE-80	m	600					
(c)	200 mm OD HDPE PE-80	m	600					
(d)	315 mm OD HDPE PE-80	m	600					
Subtotal Item No. 3								

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
4	PIPE JACKING							
4.1	Pipe jack for crossings as required with Jacking and Pushing method. The item include pushing jointing following diameter MS pipe of required length, construction of Receiving and Jacking pit with suitable shoring and strutting (if required), including installation of jacking platform, thrust resistant arrangement of required capacity including , hydraulic jacking with required accessories, required excavation inside the jacking pipe and disposal the same, etc. all complete as per drawing, specification and as directed.							
(a)	Jacking and pushing of 400 mm ID 20 mm thick MS pipe	m	20					
(b)	Jacking and pushing of 500 mm ID 20 mm thick MS pipe	m	10					
(c)	Jacking and pushing of 600 mm ID 20 mm thick MS pipe	m	10					
(d)	Jacking and pushing of 700 mm ID 20 mm thick MS pipe	m	10					
(e)	Jacking and pushing of 800 mm ID 20 mm thick MS pipe	m	10					
4.2	Laying of pipe and jointing by trenchless technology including construction of pit with required accessories, all civil and mechanical works, disposal of excess earth, etc. all complete as per specification and instruction of Employer's Representative.							
(a)	110 mm OD HDPE PE-80	m	640					
(b)	160 mm OD HDPE PE-80	m	380					
(c)	200 mm OD HDPE PE-80	m	400					
(d)	315 mm OD HDPE PE-80	m	460					
Subtotal Item No. 4								

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
5	VALVES AND APPURTENANCES							
5.1	Supplying cast iron PN 1.0 rated Sluice Valves of the following diameters as per IS 14864 with double flanged ends and all accessories required for fixing and jointing, as per the specifications and drawings. The rate shall include all taxes and duties, third party inspection, transportation, freight charges, loading and unloading, at the storeyard, with the cost of all labor and materials.							
(a)	100 mm diameter	No.	54					
(b)	150 mm diameter	No.	27					
(c)	200 mm diameter	No.	28					
(d)	250 mm diameter	No.	12					
(e)	300 mm diameter	No.	52					
5.2	Handling, aligning and installing in true to line and level cast iron PN 1.0 rated double flanged Sluice Valves (IS 14864) of the following diameters. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, lowering, assembling and jointing including the cost of all jointing materials such as rubber gaskets, nuts, bolts, etc., and providing temporary supports, as per the specifications and drawings.							
(a)	100 mm diameter	No.	54					
(b)	150 mm diameter	No.	27					
(c)	200 mm diameter	No.	28					
(d)	250 mm diameter	No.	12					
(e)	300 mm diameter	No.	52					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
5.3	Supplying cast iron PN 1.0 rated Butterfly Valves (manually operated as per IS 13095) of the following diameters with double flanged ends and all accessories required for fixing and jointing, as per the specifications and drawings. The rate shall include all taxes and duties, third party inspection, transportation, freight charges, loading and unloading, at the storeyard, with the cost of all labor and materials.							
(a)	400 mm diameter	No.	22					
(b)	500 mm diameter	No.	6					
(c)	600 mm diameter	No.	4					
(d)	700 mm diameter	No.	1					
(e)	800 mm diameter	No.	1					
5.4	Handling, aligning and installing in true to line and level cast iron PN 1.0 rated double flanged Butterfly Valves of the following diameters. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, lowering, assembling and jointing including the cost of all jointing materials such as rubber gaskets, nuts, bolts, etc., and providing temporary supports, as per the specifications and drawings.							
(a)	400 mm diameter	No.	22					
(b)	500 mm diameter	No.	6					
(c)	600 mm diameter	No.	4					
(d)	700 mm diameter	No.	1					
(e)	800 mm diameter	No.	1					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
5.5	Providing and supplying of following diameters of Double chamber Air valves with in built sluice valve PN 1.0 rating with flanged ends as per IS 14845, with all accessories required, including anti-corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to store yard and stacking the same, with cost of all labor, and material. The item shall be as per specification, drawing and as directed.							
(a)	80 mm diameter	No.	32					
(b)	100 mm diameter	No.	6					
(c)	150 mm diameter	No.	3					
5.6	Handling, aligning, and installing in true to line and level following diameters of PN 1.0 rated Double chamber Air valves with in built sluice valve with all accessories and as per specifications and drawings. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, assembling and jointing, including the cost of jointing materials such as rubber packing, nuts, bolts, etc., as per the specifications and drawings.							
(a)	80 mm diameter	No.	32					
(b)	100 mm diameter	No.	6					
(c)	150 mm diameter	No.	3					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
5.7	Supplying Fire Hydrants of 100 mm diameter as per IS 909, consisting of a single flanged outlet oblique type hydrant valve as per the specifications and drawings. The rate shall include all taxes and duties, third party inspection, transportation, freight charges, loading and unloading at the project site, with the cost of all labor, and materials.	No.	8					
5.8	Handling, aligning, and installing Fire Hydrants true to line and level. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, lowering, assembling and jointing with the cost of jointing material such as rubber packing, nuts bolts, providing temporary supports etc., as per the specifications and drawings.	No.	8					
Subtotal Item No. 5								
6	VALVE CHAMBERS							
6.1	Construction of RCC and Brick Masonry Chambers for valves, hydrants, flow meters, etc. including the cost of PCC and RCC work, the cost of supplying, bending and placing reinforcing steel with required shuttering, the cost of brick work with plastering the interior and exterior, precast slabs and the supply and installation of SFRC frames and covers. This item includes all of the miscellaneous items of work as per the specifications and drawings, but excludes the supply and installation of pipes, specials and valves, which are listed elsewhere.							
(a)	Chamber for Sluice Valve TYPE S	No.	173					
(b)	Chamber for Butterfly Valve TYPE B	No.	34					
(c)	Chamber for Air Valve TYPE A	No.	14					
(d)	Chamber for Fire Hydrant TYPE F	No.	8					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
(e)	Chamber for Washout Valve TYPE W1	No.	28					
(f)	Chamber for Washout Valve TYPE W2	No.	16					
(g)	Chamber for Flowmeter TYPE P1	No.	1					
(m)	Chamber for Flowmeter TYPE P2	No.	1					
(n)	Chamber for Flowmeter TYPE P3	No.	3					
Subtotal Item No. 6								
7	MISCELLANEOUS CIVIL WORK							
7.1	Plain Cement Concrete Work							
	Providing and placing plain cement concrete (PCC) of one of the following grades for thrust blocks, anchor blocks, floatation blocks, etc. with 20-40mm stone aggregate (crusher broken) including finishing the surface, shuttering and staging, curing etc. as per the specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.							
(a)	Grade M15 concrete	m ³	160					
(b)	Grade M20 concrete	m ³	30					
7.2	Reinforced Cement Concrete Work							
	Providing and placing reinforced cement concrete (RCC) of one of the following grades with 10-20 mm stone aggregate (crusher broken) including shuttering and staging, curing etc. as per the specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.							
(b)	Grade M25 concrete							
(i)	Foundation Slab / Footings	m ³	10					
(ii)	Beams	m ³	3					
(iii)	Columns	m ³	3					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
(iv)	Elevated Slabs	m ³	5					
7.3	Concrete Reinforcement							
	Providing and fabricating steel reinforcement with Fe 415 grade steel for RCC work including straightening, cutting, bending, placing in position and tying (including cost of tie wire) ,taxes and duties, transportation etc. all complete, as per specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.	kg	4,760					
7.4	Brick Masonry Work							
	Construction of Brick Masonry for sub/superstructure of 230/350 mm thick walls using cement mortar with a cement to sand ratio of 1:6. This item includes the cost of transportation of all materials, labor, scaffolding, curing etc. as per specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.	m ³	24					
7.5	Plastering Work							
(a)	Providing and applying cement sand plaster 12 mm thick in a single coat using cement mortar with a cement to sand ratio of 1:4 without near finish to concrete or brick surfaces including scaffolding and curing as directed by the Employer's Representative. This is Work not included in Item 6.	m ²	205					
(b)	Providing and applying cement sand plaster 20 mm thick in a single coat using cement mortar with a cement to sand ratio of 1:4 without near finish to concrete or brick surfaces including scaffolding and curing as directed by the Employer's Representative. This is Work not included in Item 6.	m ²	36					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
7.6	Providing and laying 100 mm thick brick soling for foundations and under flooring with best quality jhama brick, sand packed and laid to level after preparing the subgrade including all labor and materials and dewatering if necessary, complete and as per the specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.	m ²	60					
7.7	Structural Steel Work							
	Providing and fabricating structural steel work in rolled sections including joists, channels, angles, beams, etc. including cutting, fabricating, grinding, hoisting, erecting, fixing in position making bolted/welded connections, applying coatings etc., as per the specifications and drawings and as directed by the Employer's Representative.	kg	5,000					
Subtotal Item No. 7								
8	ROAD RESTORATION							
8.1	Reconstruction of Bituminous Asphalt Roads							
(a)	Providing and laying of Granular sub base (GSB), as per specifications, drawings, and as directed	m ³	12,600					
(b)	Providing and laying of Prime Coat, as per specifications, drawings, and as directed	m ²	78,000					
(c)	Providing and laying of Wet Mix Macadam (WMM) , as per specifications, drawings, and as directed	m ³	18,600					
(d)	Providing and laying of Dense Graded Bituminous Macadam (DBM), as per specifications, drawings, and as directed	m ³	820					
(e)	Providing and laying of Semi Dense Bituminous Concrete (SDBC), as per specifications, drawings, and as directed	m ³	410					
(f)	Providing and laying of Tack Coat (TC), as per specifications, drawings, and as directed	m ²	41,100					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
(g)	Providing and laying of Bituminous Macadam (BM), as per specifications, drawings, and as directed	m ³	1,230					
(h)	Providing and laying of Premix Carpet (PC), as per specifications, drawings, and as directed	m ²	1,320					
(i)	Providing and laying of Seal Coat (SC), as per specifications, drawings, and as directed	m ²	41,100					
8.2	Reconstruction of WBM Roads							
	Providing , laying ,spreading and compacting stone aggregates of specific sizes as per specification and drawing to water bound macadam including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of stone screenings & binding material, and completer as per specification drawing and as directed	m ³	2,400					
8.3	Reconstruction of Concrete Roads							
	Providing, placing and finishing Cement Concrete roads to match the existing roadway which was removed, if directed by the Employer's Representative . Grade M20 concrete shall be used and placed to the same depth as the existing roadway surface. A screeded finish shall be applied.	m ³	500					

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)
8.4	Reconstruction of Brick Roads							
	Providing and laying of bricks on edge for road restoration on earth subgrade. The bricks shall be on edge, diagonally placed, and gap filled up with sand, all complete, as per specification and drawings.	m ²	2,800					
Subtotal Item No. 8								
9	TESTING, TRIAL RUNS AND COMMISSIONING							
9.1	Hydraulic testing of the distribution system piping of the following diameters in segments at the required test pressures. This item includes the costs of water, labor, pumping, etc. all complete, as per the specifications and as directed by the Employer's Representative.							
(a)	100 mm - 200mm diameter	km	47.2					
(b)	Above 200 mm - 300 mm diameter	km	19.4					
(c)	Above 300 mm - 500 mm diameter	km	16.6					
(d)	Above 500 mm - 800 mm diameter	km	8.0					
(e)	Above 800 mm diameter	km	0.3					
9.2	Trial Runs and Commissioning including the cost of labor, electricity, etc., all complete as per specification and as directed by the Employer's Representative.	km	91.5					
Subtotal Item No. 9								
GRAND TOTAL (Items 1-9)								

Bill of Quantities (Addendum No. 2)								
Item No.	Description	Unit	Quantity	Unit Rate ^(a)		Amount ^(a)		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Total
			(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	(6) = (4) + (5)

Notes:

(a) Currencies shall be in Indian Rupees (INR)

Abbreviations:

INR: Indian Rupees

CIP: Cost, Insurance, Freight (Term of sale signifying that the price invoiced or quoted by a seller includes insurance and all other charges including delivery to the Project Site).

APFC: Automatic Power Factor Correction

BIS: Bureau of Indian Standards

CBS: Chlorine Booster Station

CI: Cast Iron

CPVC: Chlorinated Polyvinyl Chloride

CWP: Cold Working Pressure

DI: Ductile Iron

DC: Direct Current

FBE: Fusion Bonded Epoxy

FRP: Fiberglass Reinforced Plastic

GI: Galvanized Iron

GL: Ground Level / Grade

HDPE: High Density Polyethylene

ID: Inside Diameter

IS: Indian Standard

kg: Kilograms

kg/cm²: Kilograms per Square Centimeter

km: Kilometers

lb: pound

LS: Lump Sum

m: Meter(s)

m²: Square Meter(s)

m³: Cubic Meter(s)

mm: millimeter(s)

MS: Mild Steel

MT: Metric Ton(s)

No.: Number

OD: Outside Diameter

PCC: Plain Cement Concrete

PE: Polyethylene

PLC: Programmable Logic Controller

PN: Pressure Number

PVC: Polyvinyl Chloride

RCC: Reinforced Cement Concrete

SWG: Standard Wire Gauge

UPS: Uninterruptible Power Supply

WBM: Water Bound Macadam

XLPE: Cross Linked Polyethylene

Signature of Bidder and Date

Name and Designation

Company

Sl. No.	Part / Section / Sub-section	Clause No. / Page No.	As per Original Bidding Document				
			Position	Professional Qualification	Total Experience (years)	In Similar Works (years)	Experience of Similar Works in the Present Position (years)
1	Part 1 Section III Evaluation and Qualification Criteria	2. Qualification 2.1 Personal		Minimum	Minimum	Minimum	Minimum
			Project Manager	BE in Civil, Public Health	10 years	5 years	3 years
			Deputy Project Manager	BE in Civil, Public Health	10 years	5 years	3 years
			Resident Engineer (Civil Engineer)	BE in Civil Engineering	5 years	3 years	3 years
			Mechanical Engineer	BE in Mechanical Engineering	5 years	3 years	3 years

Sl. No.	Part / Section / Sub-section	Clause No. / Page No.	Revised Version (to be read as)					
			Position	No.	Professional Qualification	Total Experience (years)	In Similar Works (years)	Experience of Similar Works in the Present Position (years)
1	Part 1 Section III Evaluation and Qualification Criteria	2. Qualification 2.1 Personal			Minimum	Minimum	Minimum	Minimum
			Project Manager	1	BE in Civil, Public Health	10 years	5 years	3 years
			Deputy Project Manager	1	BE in Civil, Public Health	10 years	5 years	3 years
			Resident Engineer (Civil Engineer)	2	BE in Civil Engineering	5 years	3 years	3 years
			Mechanical Engineer	2	BE in Mechanical Engineering	5 years	3 years	3 years
			Accident Prevention Officer	1	Bachelor's Degree	5 years	3 years	3 years

Addendum #3 to Bid Document

1) Price Adjustment

Clauses	Original	Addendum
Section VIII PC Annexure 2 Price Adjustment Sample Price Adjustment Formula	Pricefollowing formula PI = In which: P₁ = adjustment amount payable to the Contractor	Pricefollowing formula PI = In which” P₁ = adjustment amount made every six (6) months, or part thereof, payable to the Contractor
Section VIII PC Annexure 2 Price Adjustment Schedule of Adjustment Data	For costs incurred in India and/or paid in Indian Rupees: • Cost Index for Materials, other than steel M/A: The average wholesale price index for all commodities for the month in which the adjustment data falls, as published by the Reserve Bank of India for India (Base year: 1993-94 = 100)	For costs incurred in India and/or paid in Indian Rupees: • Cost Index for Materials, other than steel M/A: The average wholesale price indexes for the following major materials for the month in which the adjustment data falls, as published by the Reserve Bank of India for India (Base year: 1993-94 = 100): Concrete Work: Cement, Stone Aggregate Road Work: Stone Aggregate, Bitumen Masonry work: Brick Plastic Pipes: HDPE

2) Schedule of Adjustment Data

Replace Schedule of Data (Table A. Local Currency) of Section IVB: Bidding Forms with the attached form.

Schedule of Adjustment Data (Supply and Delivery of Materials)

Supply and Delivery of Materials to be incorporated into permanent works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
3.0	PIPELINES, SPECIALS AND APPURTENANCES						
3.1	Supplying spirally welded MS pipe with internal lining and external coating as per the specification of the following internal diameters and wall thicknesses. The rate shall include third party inspection, transportation, freight charges, loading, unloading and stacking at the project site, with the cost of all labor, material, taxes and duties.						
(a)	100 mm ID 6 mm wall thickness (at drain crossings)		25%	3.75%	63.75%	0%	7.5%
(b)	150 mm ID 6 mm wall thickness (at drain crossings)		25%	3.75%	63.75%	0%	7.5%
(c)	200 mm ID 6 mm wall thickness (at drain/railroad crossings)		25%	3.75%	63.75%	0%	7.5%
(d)	250 mm ID 6 mm wall thickness (at drain/railroad crossings)		25%	3.75%	63.75%	0%	7.5%
(e)	300 mm ID 6 mm wall thickness (at drain crossings)		25%	3.75%	63.75%	0%	7.5%
(f)	700 mm ID 6 mm wall thickness		25%	3.75%	63.75%	0%	7.5%
(g)	800 mm ID 8 mm wall thickness		25%	3.75%	63.75%	0%	7.5%
(h)	1,000 mm ID 8 mm wall thickness		25%	3.75%	63.75%	0%	7.5%
(i)	400 mm ID 20 mm thick MS pipe (at drain/road crossings)		25%	3.75%	63.75%	0%	7.5%
(j)	500 mm ID 20 mm thick MS pipe (at drain/road crossings)		25%	3.75%	63.75%	0%	7.5%
(k)	600 mm ID 20 mm thick MS pipe (at drain/road crossings)		25%	3.75%	63.75%	0%	7.5%
(l)	700 mm ID 20 mm thick MS pipe (at drain/road crossings)		25%	3.75%	63.75%	0%	7.5%
(m)	800 mm ID 20 mm thick MS pipe (at drain/road crossings)		25%	3.75%	63.75%	0%	7.5%
	Sub-total						
3.2	Supplying all types of MS Specials plain ended, socket ended and flanged as required with internal lining and external coating as per the specification, such as bends, tees, tapers, spool pieces, blind flanges, pieces for pipe connection, valve connections, dismantling joints, anchor bolts, straps, air vent pipe, etc. of different diameters, manufactured from Fe 410 grade steel. This item includes loading, transportation to the project site, unloading and stacking, etc. complete with cost of third party inspection, material, labor, taxes and duties.		25%	3.75%	63.75%	0%	7.5%

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Supply and Delivery of Materials to be incorporated into permanent works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
3.4	Supplying DI Specials and fittings with plain, double socket, socket & flanged and double flanged end connections as required, with lining and coating as per the specification, and IS 9523 with EPDM rubber gaskets as per IS 5382 as required for successful completion of the work. This item includes third party inspection, transportation, freight, loading and unloading, stacking etc. all complete for various		25%	3.75%	63.75%	0%	7.5%
3.6	Supplying of PN10 HDPE (PE80) pipe including all specials confirming to IS 4984 and the specifications, including third party inspection, all taxes and duties, transportation, freight charges, loading and unloading, conveyance to the project site and stacking with cost of all labor and material for following pipe diameters.						
(a)	110 mm OD HDPE PE-80		25%	3.75%	0%	63.75%	7.5%
(b)	160 mm OD HDPE PE-80		25%	3.75%	0%	63.75%	7.5%
(c)	200 mm OD HDPE PE-80		25%	3.75%	0%	63.75%	7.5%
(d)	315 mm OD HDPE PE-80		25%	3.75%	0%	63.75%	7.5%
	Sub-total		25%	3.75%	0%	63.75%	7.5%
4.0	PIPE JACKING						
4.1	Pipe jack for crossings as required with Jacking and Pushing method. The item include pushing jointing following diameter MS pipe of required length, construction of Receiving and Jacking pit with suitable shoring and strutting (if required), including installation of jacking platform, thrust resistant arrangement of required capacity including , hydraulic jacking with required accessories, required excavation inside the jacking pipe and disposal the same, etc. all complete as per drawing, specification and as directed.						
(a)	Jacking and pushing of 400 mm ID 20 mm thick MS pipe		25%	3%	64.00%	0%	8.0%
(b)	Jacking and pushing of 500 mm ID 20 mm thick MS pipe		25%	3%	64.00%	0%	8.0%
(c)	Jacking and pushing of 600 mm ID 20 mm thick MS pipe		25%	3%	64.00%	0%	8.0%
(d)	Jacking and pushing of 700 mm ID 20 mm thick MS pipe		25%	3%	64.00%	0%	8.0%
(e)	Jacking and pushing of 800 mm ID 20 mm thick MS pipe		25%	3%	64.00%	0%	8.0%

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Supply and Delivery of Materials to be incorporated into permanent works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
	Sub-total						
5.0	VALVES AND APPURTENANCES						
5.1	Supplying cast iron PN 1.0 rated Sluice Valves of the following diameters as per IS 14864 with double flanged ends and all accessories required for fixing and jointing, as per the specifications and drawings. The rate shall include all taxes and duties, third party inspection, transportation, freight charges, loading and unloading, at the storeyard, with the cost of all labor and materials.						
(a)	100 mm diameter		25%	3.75%	63.75%	0%	7.5%
(b)	150 mm diameter		25%	3.75%	63.75%	0%	7.5%
(c)	200 mm diameter		25%	3.75%	63.75%	0%	7.5%
(d)	250 mm diameter		25%	3.75%	63.75%	0%	7.5%
(e)	300 mm diameter		25%	3.75%	63.75%	0%	7.5%
	Sub-total						
5.3	Supplying cast iron PN 1.0 rated Butterfly Valves (manually operated as per IS 13095) of the following diameters with double flanged ends and all accessories required for fixing and jointing, as per the specifications and drawings. The rate shall include all taxes and duties, third party inspection, transportation, freight charges, loading and unloading, at the storeyard, with the cost of all labor and materials.						
(a)	400 mm diameter		25%	3.75%	63.75%	0%	7.5%
(b)	500 mm diameter		25%	3.75%	63.75%	0%	7.5%
(c)	600 mm diameter		25%	3.75%	63.75%	0%	7.5%
(d)	700 mm diameter		25%	3.75%	63.75%	0%	7.5%
(e)	800 mm diameter		25%	3.75%	63.75%	0%	7.5%
	Sub-total						

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Supply and Delivery of Materials to be incorporated into permanent works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
5.5	Providing and supplying of following diameters of Double chamber Air valves with in built sluice valve PN 1.0 rating with flanged ends as per IS 14845, with all accessories required, including anti-corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to store yard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.						
(a)	80 mm diameter		25%	3.75%	63.75%	0%	7.5%
(b)	100 mm diameter		25%	3.75%	63.75%	0%	7.5%
(c)	150 mm diameter		25%	3.75%	63.75%	0%	7.5%
	Sub-total						
5.7	Supplying Fire Hydrants of 100 mm diameter as per IS 909, consisting of a single flanged outlet oblique type hydrant valve as per the specifications and drawings. The rate shall include all taxes and duties, third party inspection, transportation, freight charges, loading and unloading at the project site, with the cost of all labor, and materials.		25%	3.75%	63.75%	0%	7.5%
	Total						

Weight of non-adjustable portion (a) is fixed. Weight of other adjustment factors are shown as example, which are to be set by the bidder

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Schedule of Adjustment Data (Civil Work)

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			a	b	c1	c2	d
2.0	EARTHWORK						
2.1	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of ordinary soils such as murum, sand, sandy silt, clay, kankar etc. or in combination. Excavation shall include the removal of WBM roadway surface						
	Excavation will be paid for in the following segments:						
(a)	0 to 1.5 m from GL		25%	20%		40%	15%
(b)	above 1.5 m to 3.0 m depth from GL		25%	20%		40%	15%
(c)	above 3.0 m to 4.5 m depth from GL		25%	20%		40%	15%
(d)	above 4.5 m depth from GL		25%	20%		40%	15%
2.2	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of ordinary rock, Excavation shall include the removal of asphalt and concrete road surfacing, including dressing, compaction of the bottoms, shoring						
	Excavation will be paid for in the following segments:						
(a)	0 to 1.5 m from GL		25%	20%		40%	15%
(b)	above 1.5m to 3.0 m depth from GL		25%	20%		40%	15%
(c)	above 3.0 m to 4.5 m depth from GL		25%	20%		40%	15%
(d)	above 4.5 m depth from GL		25%	20%		40%	15%
2.3	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of hard rock requiring blasting , Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.						
	Excavation will be paid for in the following segments:						
(a)	0 to 1.5 m from GL		25%	20%		40%	15%

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
(b)	above 1.5m to 3.0 m depth from GL		25%	20%		40%	15%
(c)	above 3.0 m to 4.5 m depth from GL		25%	20%		40%	15%
(d)	above 4.5 m depth from GL		25%	20%		40%	15%
2.4	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of hard rock (blasting prohibited) , Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.						
	Excavation will be paid for in the following segments:						
(a)	0 to 1.5 m from GL		25%	20.00%		40%	15.0%
(b)	above 1.5m to 3.0 m depth from GL		25%	20.00%		40%	15.0%
(c)	above 3.0 m to 4.5 m depth from GL		25%	20.00%		40%	15.0%
(d)	above 4.5 m depth from GL		25%	20.00%		40%	15.0%
2.5	Backfilling of pipe trenches, foundations, etc. with approved graded excavated soil (select granular material), excluding rock, including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative.		25%	20.00%		40%	15.0%
2.6	Backfilling of pipe trenches, foundations, etc. with approved graded sand , including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative.		25%	20.00%		40%	15.0%
2.7	Backfilling of pipe trenches, foundations, etc. with approved graded gravel , including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative.		25%	20.00%		40%	15.0%
Subtotal Item No. 2							

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
3.0	PIPELINES, SPECIALS AND APPURTENANCES						
3.3	Handling, aligning, laying and jointing MS pipes and specials to correct line and level in trenches. The item includes transportation of pipes and specials from the storeyard to the project site, stacking of pipe as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports, lining and coating at joints etc. for pipe of the following diameters and thicknesses. The rate also shall include radiography of field joints, field testing, etc. as specified and shown on the drawings and specification.						
(a)	100 mm ID 6 mm wall thickness (at drain crossings)		25%	20.00%		40%	15.0%
(b)	150 mm ID 6 mm wall thickness (at drain crossings)		25%	20.00%		40%	15.0%
(c)	200 mm ID 6 mm wall thickness (at drain/railroad crossings)		25%	20.00%		40%	15.0%
(d)	250 mm ID 6 mm wall thickness (at drain/railroad crossings)		25%	20.00%		40%	15.0%
(e)	300 mm ID 6 mm wall thickness (at drain crossings)		25%	20.00%		40%	15.0%
(f)	700 mm ID 6 mm wall thickness		25%	20.00%		40%	15.0%
(g)	800 mm ID 6 mm wall thickness		25%	20.00%		40%	15.0%
(h)	1,000 mm ID 8 mm wall thickness		25%	20.00%		40%	15.0%
3.5	Handling, aligning, laying and jointing of Employer furnished K-9 DI pipe to other pipe and to Contractor furnished fittings and specials , with EPDM rubber O-rings (as per IS 5382) and flange gaskets (as per IS 12288) and the specifications. This item includes transportation of pipes, specials and fittings from the storeyard to the project site, stacking of pipe and fittings as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipe of the following diameters						
(a)	100 mm DN DI - K9 pipe		25%	20.00%		40%	15.0%
(b)	150 mm DN DI - K9 pipe		25%	20.00%		40%	15.0%
(c)	200 mm DN DI - K9 pipe		25%	20.00%		40%	15.0%

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
(d)	250 mm DN DI - K9 pipe		25%	20.00%		40%	15.0%
(e)	300 mm DN DI - K9 pipe		25%	20.00%		40%	15.0%
(f)	400 mm DN DI - K9 pipe		25%	20.00%		40%	15.0%
(g)	500 mm DN DI - K9 pipe		25%	20.00%		40%	15.0%
(h)	600 mm DN DI - K9 pipe		25%	20.00%		40%	15.0%
3.7	Handling, aligning, laying and jointing of PN10 HDPE (PE80) pipes with specials by butt welding / spigot joints confirming to IS and specifications. The item includes transportation of pipes and specials from store yard to site, stacking of pipe as per BIS, loading, unloading, hoisting, lowering, cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipes of following diameters.						
(a)	110 mm OD HDPE PE-80		25%	20.00%		40%	15.0%
(b)	160 mm OD HDPE PE-80		25%	20.00%		40%	15.0%
(c)	200 mm OD HDPE PE-80		25%	20.00%		40%	15.0%
(d)	315 mm OD HDPE PE-80		25%	20.00%		40%	15.0%
Subtotal							
4.0	PIPE JACKING						
4.2	Laying of pipe and jointing by trenchless technology including construction of pit with required accessories, all civil and mechanical works, disposal of excess earth, etc. all complete as per specification and instruction of Employer's Representative.						
(a)	110 mm OD HDPE PE-80		25%	20.00%		40%	15.0%
(b)	160 mm OD HDPE PE-80		25%	20.00%		40%	15.0%
(c)	200 mm OD HDPE PE-80		25%	20.00%		40%	15.0%
(d)	315 mm OD HDPE PE-80		25%	20.00%		40%	15.0%
5.0	VALVES AND APPURTENANCES						

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			a	b	c1	c2	d
5.2	Handling, aligning and installing in true to line and level cast iron PN 1.0 rated double flanged Sluice Valves (IS 14864) of the following diameters. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, lowering, assembling and jointing including the cost of all jointing materials such as rubber gaskets, nuts, bolts, etc., and providing temporary supports, as per the specifications and drawings.						
(a)	100 mm diameter		25%	20.00%		40%	15.0%
(b)	150 mm diameter		25%	20.00%		40%	15.0%
(c)	200 mm diameter		25%	20.00%		40%	15.0%
(d)	250 mm diameter		25%	20.00%		40%	15.0%
(e)	300 mm diameter		25%	20.00%		40%	15.0%
5.4	Handling, aligning and installing in true to line and level cast iron PN 1.0 rated double flanged Butterfly Valves of the following diameters. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, lowering, assembling and jointing including the cost of all jointing materials such as rubber gaskets, nuts, bolts, etc., and providing temporary supports, as per the specifications and drawings.						
(a)	400 mm diameter		25%	20.00%		40%	15.0%
(b)	500 mm diameter		25%	20.00%		40%	15.0%
(c)	600 mm diameter		25%	20.00%		40%	15.0%
(d)	700 mm diameter		25%	20.00%		40%	15.0%
(e)	800 mm diameter		25%	20.00%		40%	15.0%

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			a	b	c1	c2	d
5.6	Handling, aligning, and installing in true to line and level following diameters of PN 1.0 rated Double chamber Air valves with in built sluice valve with all accessories and as per specifications and drawings. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, assembling and jointing, including the cost of jointing materials such as rubber packing, nuts, bolts, etc., as per the specifications and						
(a)	80 mm diameter		25%	20.00%		40%	15.0%
(b)	100 mm diameter		25%	20.00%		40%	15.0%
(c)	150 mm diameter		25%	20.00%		40%	15.0%
5.8	Handling, aligning, and installing Fire Hydrants true to line and level. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, lowering, assembling and jointing with the cost of jointing material such as rubber packing, nuts bolts, providing temporary supports etc., as per the specifications and drawings.		25%	20.00%		40%	15.0%
Subtotal							
6.0	VALVE CHAMBERS						
6.1	Construction of RCC and Brick Masonry Chambers for valves, hydrants, flow meters, etc. including the cost of PCC and RCC work, the cost of supplying, bending and placing reinforcing steel with required shuttering, the cost of brick work with plastering the interior and exterior, precast slabs and the supply and installation of SFRC frames and covers. This item includes all of the miscellaneous items of work as per the specifications and drawings, but excludes the supply and installation of pipes, specials and valves, which are listed elsewhere.						
(a)	Chamber for Sluice Valve TYPE S		25%	20.00%	20.00%	20%	15.0%
(b)	Chamber for Butterfly Valve TYPE B		25%	20.00%	20.00%	20%	15.0%
(c)	Chamber for Air Valve TYPE A		25%	20.00%	20.00%	20%	15.0%
(d)	Chamber for Fire Hydrant TYPE F		25%	20.00%	20.00%	20%	15.0%
(e)	Chamber for Washout Valve TYPE W1		25%	20.00%	20.00%	20%	15.0%

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			a	b	c1	c2	d
(f)	Chamber for Washout Valve TYPE W2		25%	20.00%	20.00%	20%	15.0%
(g)	Chamber for Flowmeter TYPE P1		25%	20.00%	20.00%	20%	15.0%
(m)	Chamber for Flowmeter TYPE P2		25%	20.00%	20.00%	20%	15.0%
(n)	Chamber for Flowmeter TYPE P3		25%	20.00%	20.00%	20%	15.0%
Subtotal							
7.0	MISCELLANEOUS CIVIL WORK						
7.1	Plain Cement Concrete Work						
	Providing and placing plain cement concrete (PCC) of one of the following grades for thrust blocks, anchor blocks, floatation blocks, etc. with 20-40mm stone aggregate (crusher broken) including finishing the surface, shuttering and staging, curing etc. as per the specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.						
(a)	Grade M15 concrete		25%	20.00%	0.00%	40%	15.0%
(b)	Grade M20 concrete		25%	20.00%	0.00%	40%	15.0%
7.2	Reinforced Cement Concrete Work						
	Providing and placing reinforced cement concrete (RCC) of one of the following grades with 10-20 mm stone aggregate (crusher broken) including shuttering and staging, curing etc. as per the specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.						
(b)	Grade M25 concrete						
(i)	Foundation Slab / Footings		25%	20.00%	0.00%	40%	15.0%
(ii)	Beams		25%	20.00%	0.00%	40%	15.0%
(iii)	Columns		25%	20.00%	0.00%	40%	15.0%
(iv)	Elevated Slabs		25%	20.00%	0.00%	40%	15.0%
7.3	Concrete Reinforcement						

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			a	b	c1	c2	d
	Providing and fabricating steel reinforcement with Fe 415 grade steel for RCC work including straightening, cutting, bending, placing in position and tying (including cost of tie wire) ,taxes and duties, transportation etc. all complete, as per specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.		25%	20.00%	40.00%	0%	15.0%
7.4	Brick Masonry Work						
	Construction of Brick Masonry for sub/superstructure of 230/350 mm thick walls using cement mortar with a cement to sand ratio of 1:6. This item includes the cost of transportation of all materials, labor, scaffolding, curing etc. as per specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.		25%	20.00%	0.00%	40%	15.0%
7.5	Plastering Work						
(a)	Providing and applying cement sand plaster 12 mm thick in a single coat using cement mortar with a cement to sand ratio of 1:4 without neeru finish to concrete or brick surfaces including scaffolding and curing as directed by the Employer's Representative. This is Work not included in Item 6.		25%	20.00%	0.00%	40%	15.0%
(b)	Providing and applying cement sand plaster 20 mm thick in a single coat using cement mortar with a cement to sand ratio of 1:4 without neeru finish to concrete or brick surfaces including scaffolding and curing as directed by the Employer's Representative. This is Work not included in Item 6.		25%	20.00%	0.00%	40%	15.0%
7.6	Providing and laying 100 mm thick brick soling for foundations and under flooring with best quality jhama brick, sand packed and laid to level after preparing the subgrade including all labor and materials and dewatering if necessary, complete and as per the specifications and drawings and as directed by the Employer's Representative. This is Work not included in Item 6.		25%	20.00%	0.00%	40%	15.0%
7.7	Structural Steel Work						

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
	Providing and fabricating structural steel work in rolled sections including joists, channels, angles, beams, etc. including cutting, fabricating, grinding, hoisting, erecting, fixing in position making bolted/welded connections, applying coatings etc., as per the specifications and drawings and as directed by the Employer's Representative.		25%	20.00%	40.00%	0%	15.0%
Subtotal Item No. 7							
8.0	ROAD RESTORATION						
8.1	Reconstruction of Bituminous Asphalt Roads						
a)	Providing and laying of Granular sub base (GSB), as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
b)	Providing and laying of Prime Coat, as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
c)	Providing and laying of Wet mix macadam (WMM) , as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
d)	Providing and laying of Dense graded bituminous macadam (DBM), as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
e)	Providing and laying of Semi dense bituminous concrete (SDBC), as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
f)	Providing and laying of Tack coat (TC), as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
g)	Providing and laying of Bituminous macadam (BM), as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
h)	Providing and laying of Premix carpet (PC), as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
i)	Providing and laying of Seal Coat (SC), as per specifications, drawings, and as directed		25%	20.00%	0.00%	40%	15.0%
8.2	Reconstruction of WBM Roads						

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder

Civil Works							
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS) c1	Other Materials (MA) c2	Equipment operation (E) d
a)	Providing , laying ,spreading and compacting stone aggregates of specific sizes as per specification and drawing to water bound macadam including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of stone screenings & binding material, and completer as per specification drawing and as directed		25%	20.00%	0.00%	40%	15.0%
8.3	Reconstruction of Concrete Roads						
	Providing, placing and finishing Cement Concrete roads to match the existing roadway which was removed, if directed by the Employer's Representative . Grade M20 concrete shall be used and placed to the same depth as the existing roadway surface. A screeded finish shall be applied.		25%	20.00%	0.00%	40%	15.0%
8.4	Reconstruction of Brick Roads						
	Providing and laying of bricks on edge for road restoration on earth subgrade. The bricks shall be on edge, diagonally placed, and gap filled up with sand, all complete, as per specification and drawings.		25%	20.00%	0.00%	40%	15.0%
Subtotal Item No. 8							

Weight of non-adjustable portion (a) is fixed by the Employer. Weight of other adjustment factors are shown as example and purely indicative, which are to be set by the bidder