



BID DOCUMENT

Request for Bids

(Two-Envelope Bidding Process)

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

RFB No: 007/GSCDL/2020,
Project Identification No: SIK-GAN-077.

NAME OF WORK: - “Improvement of Selected Feeder Roads in and around Gangtok.”

Standard Procurement Document

Summary

Specific Procurement Notice

RFB No: 007/GSCDL/2020, Project identification No: SIK-GAN-077.

Bidding Document: Request for Bids – Small Works (Two-Envelope Bidding Process)

PART 1 – BIDDING PROCEDURES

Section I - Instructions to Bidders (ITB)

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

Section II - Bid Data Sheet (BDS)

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

Section III - Evaluation and Qualification Criteria

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

Section IV - Bidding Forms

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

Section V - Eligible Countries

This Section contains information regarding eligible countries.

Section VI - Fraud and Corruption

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

PART 2 – WORKS REQUIREMENTS

Section VII -Works' Requirements

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

PART 3 – CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section VIII - General Conditions of Contract

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

Section IX - Particular Conditions of Contract

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

Section X - Contract Forms

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



Request for Bids (Two-Envelope Bidding Process)

Employer: Gangtok Smart City Development Limited (GSCDL)

Project: SIK-GAN-077 Improvement of feeder road in around Gangtok.

Bid Value: Rs. 61,93,37,285.00 (Rupees Sixty-One Crore Ninety-Three Lakhs Thirty-Seven Thousand Two Hundred and Eighty-Five) only

RFB No: 007/GSCDL/2020, Project identification No: SIK-GAN-0077.

Issued on: 26th February 2021.

1. The GSCDL is to receive financing under the Smart City Mission, and intends to apply part of the proceeds toward payments under the contract "For this contract, the GSCDL shall process the payments as per the Company policy, terms and conditions laid in this Standard Procurement Document, subject to availability of funds.
2. The GSCDL now invites sealed Bids from eligible Bidders for the work "Improvement of Selected Feeder roads in and around Gangtok", to be completed within a period of eighteen months, subject to providing the land free from encumbrances by the administrative Department.
3. Bidding will be conducted through competitive procurement using Request for Bids (RFB) as specified herein and is open to all eligible Bidders as defined in the given criteria.
4. Interested eligible Bidders may obtain further information from the office of the Chief Technical Officer, GSCDL; email id – ctosmartcity.gangtok@gmail.com document and can download and view the complete bidding document after 05/03/2021 from the websites indicated below.
5. The bidding document in English may be purchased by interested eligible Bidders during working days between 11:00 hrs. to 15:00hrs 25/03/2021 to 30/03/2021, upon the submission of a written application to the address below and upon payment of a non-refundable fee of Rs. 2,00,000 (Rupees Two Lakh) only. The method of payment will be through demand draft payable to Gangtok Smart City Development Limited. The DD should be issued by a Nationalized Bank and payable at Gangtok.
6. Bids must be delivered to the address indicated below, on or before 1300 hours on 06/04/2021. Electronic bidding is not enabled. Late Bids will be rejected. The outer Bid envelopes marked "ORIGINAL BID", and the inner envelopes marked "TECHNICAL PART" will be publicly opened in the presence of the Bidders' designated representatives and anyone who chooses to attend, at the address below at 1500 hrs. on 06/04/2021. All envelopes marked "FINANCIAL PART" shall remain unopened and will be held in safe custody of the Employer until the second public Bid opening.
7. All Bids must be accompanied by a Bid Security of Rs. 1, 54, 83,432/- (Rupees One Crore Fifty-four Eighty Three Thousand Four Hundred and Thirty Two) only.
8. The address(es) referred to above is (are):

Chief Executive Officer

Gangtok Smart City Development Limited, Sokaythang, - 737102 Gangtok, Sikkim, India

Email address: ceosmartcity.gangtok@gmail.com

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

C.E.O.
Gangtok Smart City Development Ltd

Request for Bids Works

(Two-Envelope Bidding Process)

Procurement of: SIK-GAN-077

RFB No: 007/GSCDL/2020, Project identification No: SIK-GAN-077.

Project: Improvement of Selected Feeder Roads in and around Gangtok

Employer: Gangtok Smart City Development Limited

Country: The Republic of India

Issued on: 26th February 2021

Standard Procurement Document

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PART 1 – Bidding Procedures

Section I - Instructions to Bidders

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Section I - Instructions to Bidders

A. General

1. **Scope of Bid**
 - 1.1 In connection with the Specific Procurement Notice – Request for Bids (RFB), specified in the **Bid Data Sheet (BDS)**, the Employer, as **specified in the BDS**, issues this bidding document for the provision of Works as specified in Section VII, Works' Requirements. The name, identification, and number of lots (contracts) of this RFB are **specified in the BDS**.
 - 1.2 Throughout this bidding document:
 - (a) the term **“in writing”** means communicated in written form (e.g. by mail, e-mail, fax, including if **specified in the BDS**, distributed or received through electronic-procurement system used by the Employer) with proof of receipt;
 - (b) if the context so requires, **“singular”** means **“plural”** and vice versa;
 - (c) **“Day”** means calendar day, unless otherwise specified as a **“Business Day.”** A Business Day is any day that is a working day of the GSCDL. It excludes the GSCDL's official public holidays;
 - (d) **“ES”** means environmental and social (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH));
 - (e) **“Sexual Exploitation and Abuse” “(SEA)”** means the following:

“Sexual Exploitation” is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;

“Sexual Abuse” is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
 - (f) **“Sexual Harassment” “(SH)”** is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor's Personnel with other Contractor's or Employer's Personnel;
 - (g) **“Contractor's Personnel”** is as defined in Sub- Clause 1 (ii) of the General Conditions of Contract; and
 - (h) **“Employer's personnel”** is as defined in GCC Sub-Clause 1 (nn) of the General Conditions of Contract.

A non-exhaustive list of (i) behaviors which constitute SEA and (ii) behaviors which constitute SH is attached to the Code of Conduct form in Section IV.
2. **Source of Funds**
 - 2.1 The GSCDL or Recipient (hereinafter called “GSCDL”) **specified in the BDS** is to receive financing (hereinafter called “funds”) from the Smart City Mission of the Government of India and jointly funded by the Government of Sikkim and intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document are issued.
 - 2.2 Payment by GSCDL will be subject, in all respects, to the terms and conditions of the Agreement
3. **Fraud and Corruption**
 - 3.1 The GSCDL requires compliance with the GSCDL's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth as set forth in Section VI.
 - 3.2 In further pursuance of this policy, Bidders shall permit and shall cause their agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit the GSCDL to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission, and

4. Eligible Bidders

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

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

5. Eligible Materials, Equipment and Services

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

B. Contents of Bidding Document

6. Sections of Bidding Document

- 6.1 The bidding document consist of Parts 1, 2, and 3, which include all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART 1 Bidding Procedures

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

PART 2 Works' Requirements

- Section VII-Works' Requirements

PART 3 Conditions of Contract and Contract Forms

- Section VIII - General Conditions of Contract
 - Section IX - Particular Conditions of Contract
 - Section X - Contract Forms
- 6.2 The Specific Procurement Notice - Request for Bids (RFB) issued by the Employer is not part of this bidding document.
- 6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the bidding document, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail.
- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information and documentation as is required by the bidding document.
- 7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting**
- 7.1 A Bidder requiring any clarification of the bidding document shall contact the Employer in writing at the Employer's address **specified in the BDS** or raise its inquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period **specified in the BDS**. The Employer shall forward copies of its response to all Bidders who have acquired the bidding document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so **specified in the BDS**, the Employer shall also promptly publish its response at the web page **identified in the BDS**. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 8 and ITB 22.2.
- 7.2 The Bidder is advised to visit and examine the Site of works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
- 7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- 7.4 If so **specified in the BDS**, the Bidder's designated representative is invited to attend a pre-Bid meeting and/or a Site of works visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5 The Bidder is requested, to submit any questions in writing, to reach the Employer not later than one week before the meeting.
- 7.6 Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the bidding document in accordance with ITB 6.3. If so **specified in the BDS**, the Employer shall also promptly publish the Minutes of the pre-Bid meeting at the web page **identified in the BDS**. Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-Bid

- meeting. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.
- 8. Amendment of Bidding Document**
- 8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the bidding document by issuing addenda.
- 8.2 Any addendum issued shall be part of the bidding document and shall be communicated in writing to all who have obtained the bidding document from the Employer in accordance with ITB 6.3. The Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITB 7.1.
- 8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

C. Preparation of Bids

- 9. Cost of Bidding**
- 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.
- 10. Language of Bid**
- 10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be written in the language **specified in the BDS**. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language **specified in the BDS**, in which case, for purposes of interpretation of the Bid, such translation shall govern.
- 11. Documents Comprising the Bid**
- 11.1 The Bid shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted simultaneously in two separate sealed envelopes (two-envelope Bidding process). One envelope shall contain only information relating to the Technical Part and the other, only information relating to the Financial Part. These two envelopes shall be enclosed in a separate sealed outer envelope marked "ORIGINAL BID".
- 11.2 The **Technical Part** shall contain the following:
- (a) **Letter of Bid – Technical Part**, prepared in accordance with ITB 12;
 - (b) **Bid Security** or **Bid-Securing Declaration**, in accordance with ITB 19.1;
 - (c) **Alternative Bid - Technical Part**: if permissible in accordance with ITB 13, the Technical Part of any Alternative Bid;
 - (d) **Authorization**: written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.3;
 - (e) **Bidder's Eligibility**: documentary evidence in accordance with ITB 17.1 establishing the Bidder's eligibility to Bid;
 - (f) **Qualifications**: documentary evidence in accordance with ITB 17.2 establishing the Bidder's qualifications to perform the Contract if its Bid is accepted;
 - (g) **Conformity**: a technical proposal in accordance with ITB 16; and
 - (h) any other document **required in the BDS**.
- 11.3 The **Financial Part** shall contain the following:
- (a) **Letter of Bid – Financial Part**: prepared in accordance with ITB 12 and ITB 14;
 - (b) **Bill of Quantities or Activity Schedule** completed in accordance with ITB 12 and ITB 14 as specified **in the BDS**;
 - (c) **Alternative Bid - Financial Part**: if permissible in accordance with ITB 13, the Financial Part of any Alternative Bid; and
 - (d) any other document **required in the BDS**.

- 11.4 The Technical Part shall not include any information related to the Bid price. Where material financial information related to the Bid price is contained in the Technical Part the Bid shall be declared non-responsive.
- 11.5 In addition to the requirements under ITB 11.2, Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.
- 11.6 The Bidder shall furnish in the Letter of Bid – Financial Part information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

12. Letters of Bid and Schedules

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

13. Alternative Bids

- 13.1 Unless otherwise **specified in the BDS**, alternative Bids shall not be considered.
- 13.2 When alternative times for completion are explicitly invited, a statement to that effect will be **included in the BDS**, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.
- 13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the bidding document must first price the Employer's design as described in the bidding document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Bidder with the Most Advantageous Bid conforming to the basic technical requirements shall be considered by the Employer.
- 13.4 When **specified in the BDS**, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be **identified in the BDS** and described in Section VII, Works' Requirements. The method for their evaluation will be stipulated in Section III, Evaluation and Qualification Criteria.

14. Bid Prices and Discounts

- 14.1 The prices and discounts quoted by the Bidder in the Letter of Bid – Financial Part and in the Priced Activity Schedule or Bill of Quantities shall conform to the requirements specified below.
- 14.2 The Bidder shall submit a Bid for the whole of the Works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section IV, Bidding Forms. In case of admeasurement contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
- 14.3 The price to be quoted in the Letter of Bid – Financial Part, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.
- 14.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid - Financial Part, in accordance with ITB 12.1.

- 14.5 Unless otherwise **provided in the BDS**, and the Conditions of Contract, the prices quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data in Section IV- Bidding Forms and the Employer may require the Bidder to justify its proposed indices and weightings.
- 14.6 If so specified in ITB 1.1, Bids are invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer discounts for the award of more than one Contract shall specify in their Bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all lots (contracts) are opened at the same time.
- 14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of Bids, shall be included in the rates and prices and the total Bid price submitted by the Bidder.
- 15. Currencies of Bid and Payment**
- 15.1 The currency(ies) of the Bid and the currency(ies) of payments shall be the same and shall be as **specified in the BDS**.
- 15.2 Bidders may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data are reasonable, in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders.
- 16. Documents Comprising the Technical Proposal**
- 16.1 The Bidder shall furnish a technical proposal in the Technical Part of the Bid including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work's requirements and the completion time.
- 17. Documents Establishing the Eligibility and Qualifications of the Bidder**
- 17.1 To establish Bidder's eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid, – Technical Part, included in Section IV, Bidding Forms.
- 17.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.
- 17.3 If a margin of preference applies as specified in accordance with ITB 38.1, domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITB 38.1.
- 18. Period of Validity of Bids**
- 18.1 Bids shall remain valid until the date specified **in the BDS** or any extended date if amended by the Employer in accordance with ITB 8. A Bid that is not valid until the date specified **in the BDS**, or any extended date if amended by the Employer in accordance with ITB 8, shall be rejected by the Employer as nonresponsive.
- 18.2 In exceptional circumstances, prior to the date of expiry of the Bid validity, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 19, it shall also be extended for twenty-eight (28) days beyond the extended date for Bid validity. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder

granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 18.3.

18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the date of expiry of the Bid validity specified in accordance with ITB 18.1, the Contract price shall be determined as follows:

- (a) in **the** case of fixed price contracts, the Contract price shall be the Bid price adjusted by the factor **specified in the BDS**;
- (b) in the case of adjustable price contracts, no adjustment shall be made; or
- (c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.

19. Bid Security

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

19.2 deleted.

19.3 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security shall be a demand draft as **specified in the BDS**,

from a nationalized Bank. The Bid Security shall be valid for twenty-eight (28) days beyond the original date of expiry of the Bid validity, or beyond any extended date if requested under ITB 18.2.

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

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

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

19.7 The Bid Security may be forfeited:

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

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

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

- (a) if a Bidder withdraws its Bid prior to the expiry date of the Bid validity specified by the Bidder on the Letters of Bid or any extended date provided by the Bidder; or
- (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB 49; or

- (ii) furnish a Performance Security and if required in the BDS, the Environmental, and Social (ES) Performance Security in accordance with ITB 50;

the GSCDL may, if provided for **in the BDS**, declare the Bidder ineligible to be awarded a contract by the Employer for a period of time as **stated in the BDS**.

20. Format and Signing of Bid

- 20.1 The Bidder shall prepare the Bid, in accordance with this Instruction, ITB 11 and ITB 21.
- 20.2 Bidders shall mark as “CONFIDENTIAL” information in their Bids which is confidential to their business. This may include proprietary information, trade secrets or commercial or financially sensitive information.
- 20.3 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as **specified in the BDS** and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialed by the person signing the Bid.
- 20.4 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.
- 20.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. Submission of Bids

21. Sealing and Marking of Bids

- 21.1 The Bidder shall deliver the Bid in two separate, sealed envelopes (the Technical Part and the Financial Part.) These two envelopes shall be enclosed in a separate sealed outer envelope marked “ORIGINAL BID”.
- 21.2 In addition, the Bidder shall submit copies of the Bid in the number **specified in the BDS**. Copies of the Technical Part shall be placed in a separate sealed envelope marked “COPIES: TECHNICAL PART”. Copies of the Financial Part shall be placed in a separate sealed envelope marked “COPIES: FINANCIAL PART”. The Bidder shall place both of these envelopes in a separate, sealed outer envelope marked “BID COPIES”. In the event of any discrepancy between the original and the copies, the original shall prevail. If alternative Bids are permitted in accordance with ITB 13, the alternative Bids shall be submitted as follows: the original of the alternative Bid Technical Part shall be placed in a sealed envelope marked “ALTERNATIVE BID – TECHNICAL PART” and the Financial Part shall be placed in a sealed envelope marked “ALTERNATIVE BID – FINANCIAL PART” and these two separate sealed envelopes then enclosed within a sealed outer envelope marked “ALTERNATIVE BID – ORIGINAL”, the copies of the alternative Bid will be placed in separate sealed envelopes marked “ALTERNATIVE BID – COPIES OF TECHNICAL PART”, and “ALTERNATIVE BID – COPIES OF FINANCIAL PART” and enclosed in a separate sealed outer envelope marked “ALTERNATIVE BID - COPIES”
- 21.3 The envelopes marked “ORIGINAL BID” and “BID COPIES” (and, if appropriate, a third envelope marked “ALTERNATIVE BID”) shall be enclosed in a separate sealed outer envelope for submission to the Employer.
- 21.4 All inner and outer envelopes, shall:

- (a) bear the name and address of the Bidder;
 - (b) be addressed to the Employer in accordance with ITB 22.1;
 - (c) bear the specific identification of this Bidding process indicated in ITB 1.1; and
 - (d) bear a warning not to open before the time and date for Bid opening.
- 21.5 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.
- 22. **Deadline for Submission of Bids**
 - 22.1 Bids must be received by the Employer at the address and no later than the date and time **specified in the BDS**. When so **specified in the BDS**, Bidders shall have the option of submitting their Bids electronically. Bidders submitting Bids electronically shall follow the electronic Bid submission procedures **specified in the BDS**.
 - 22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the bidding document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
- 23. **Late Bids**
 - 23.1 The Employer shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 22. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.
- 24. **Withdrawal, Substitution, and Modification of Bids**
 - 24.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be:
 - (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” and
 - (b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 22.
 - 24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.
 - 24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the date of expiry of the Bid validity specified by the Bidder on the Letter of Bid or any extended date thereof.
- E. Public Opening of Technical Parts of Bids**
 - 25. **Public Opening of Technical Parts of Bids**
 - 25.1 Except in the cases specified in ITB 23 and ITB 24.2, the Employer shall publicly open and read out all Bids received by the deadline, at the date, time and place **specified in the BDS**, in the presence of Bidders` designated representatives and anyone who chooses to attend. All Bidders, or their representatives and any interested party may attend a public opening. Any specific electronic Bid opening procedures required if electronic bidding is permitted in accordance with ITB 22.1, shall be as **specified in the BDS**.

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

F. Evaluation of Bids – General Provisions

26. Confidentiality

- 26.1 Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 44.

- 26.2 Any effort by a Bidder to influence the Employer in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, from the time of Bid opening to the time of Contract award, if a Bidder wishes to contact the Employer on any matter related to the Bidding process, it shall do so in writing.
- 27. Clarification of Bids**
- 27.1 To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid given a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 36.
- 27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.
- 28. Deviations, Reservations, and Omissions**
- 28.1 During the evaluation of Bids, the following definitions apply:
- (a) "Deviation" is a departure from the requirements specified in the bidding document;
 - (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
 - (c) "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.
- 29. Nonmaterial Nonconformities**
- 29.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid.
- 29.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 29.3 Provided that a Bid is substantially responsive pursuant to ITB 31, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid price. To this effect, the Bid Price shall be adjusted, for comparison purposes only to reflect the price of a missing or non-conforming item or component, by adding the average price of the item or component quoted by substantially responsive Bidders. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate.
- G. Evaluation of Technical Parts of Bids**
- 30. Evaluation of Technical Parts**
- 30.1 In evaluating the Technical Parts of each Bid, the Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted.
- 31. Determination of Responsiveness**
- 31.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB11.
- 31.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
- (a) if accepted, would:

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

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

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

32. Qualification of the Bidder

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

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

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

32.4 Only Bids that are both substantially responsive to the bidding document, and meet all Qualification Criteria shall have their envelopes marked "SECOND ENVELOPE: FINANCIAL PART" opened at the second public opening.

33. Subcontractors

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

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

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

H. Public Opening of Financial Parts of Bids

34. Public Opening of Financial Parts

34.1 Following the completion of the evaluation of the Technical Parts of the Bids, and the GSCDL has issued its no objection (if applicable), the Employer shall notify in writing those Bidders whose Bids were considered non-responsive to the bidding document or failed to meet the Qualification Criteria, advising them of the following information:

- (a) the grounds on which their Technical Part of Bid failed to meet the requirements of the bidding document;

- (b) their envelopes marked “SECOND ENVELOPE: FINANCIAL PART” will be returned to them unopened after the completion of the selection process and the signing of the Contract; and
 - (c) notify them of the date, time and location of the public opening of the envelopes marked “SECOND ENVELOPE: FINANCIAL PART”.
- 34.2 The Employer shall, simultaneously, notify in writing those Bidders whose Technical Part have been evaluated as substantially responsive to the bidding document and met all Qualifying Criteria, advising them of the following information:
- (a) their Bid has been evaluated as substantially responsive to the bidding document and met the Qualification Criteria;
 - (b) their envelope marked “SECOND ENVELOPE: FINANCIAL PART” will be opened at the public opening of the Financial Parts; and
 - (c) notify them of the date, time and location of the second public opening of the envelopes marked “SECOND ENVELOPE: FINANCIAL PART” **as specified in the BDS.**
- 34.3 The opening date should allow Bidders sufficient time to make arrangements for attending the opening. The Financial Part of the Bid shall be opened publicly in the presence of Bidders’ designated representatives and anyone who chooses to attend.
- 34.4 At this public opening the Financial Parts will be opened by the Employer in the presence of Bidders, or their designated representatives and anyone else who chooses to attend. Bidders who met the Qualification Criteria and whose bids were evaluated as substantially responsive will have their envelopes marked “SECOND ENVELOPE: FINANCIAL PART” opened at the second public opening. Each of these envelopes marked “SECOND ENVELOPE: FINANCIAL PART” shall be inspected to confirm that they have remained sealed and unopened. These envelopes shall then be opened by the Employer. The Employer shall read out the names of each Bidder, and the total Bid prices, per lot (contract) if applicable, including any discounts and Alternative Bid - Financial Part, and any other details as the Employer may consider appropriate.
- 34.5 Only envelopes of Financial Part of Bids, Financial Parts of Alternative Bids and discounts that are opened and read out at Bid opening shall be considered further for evaluation. The Letter of Bid – Financial Part and the Priced Activity Schedules are to be initialed by a representative of the Employer attending the Bid opening in the manner **specified in the BDS.**
- 34.6 The Employer shall neither discuss the merits of any Bid nor reject any envelopes marked “SECOND ENVELOPE: FINANCIAL PART”.
- 34.7 The Employer shall prepare a record of the Financial Part of the Bid opening that shall include, as a minimum:
- (a) the name of the Bidder whose Financial Part was opened;
 - (b) the Bid price, per lot (contract) if applicable, including any discounts; and
 - (c) if applicable, any Alternative Bid – Financial Part.
- 34.8 The Bidders whose envelopes marked “SECOND ENVELOPE: FINANCIAL PART” have been opened or their representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

I. Evaluation of Financial Parts of Bids

35. Evaluation of Financial Parts

- 35.1 To evaluate the Financial Part, the Employer shall consider the following:
- (a) the Bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities for admeasurement contracts, but including Daywork items, where priced competitively;
 - (b) price adjustment for correction of arithmetic errors in accordance with ITB 36.1;
 - (c) price adjustment due to discounts offered in accordance with ITB 14.4;
 - (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 37;
 - (e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 29.3; and
 - (f) the additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria.
- 35.2 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.
- 35.3 If this bidding document allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated cost of the contract combinations, including any discounts offered in the Letter of Bid – Financial Part, is specified in Section III, Evaluation and Qualification Criteria

36. Correction of Arithmetical Errors

- 36.1 In evaluating the Financial Part of each Bid, the Employer shall correct arithmetical errors on the following basis:
- (a) only for admeasurement contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
 - (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
 - (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- 36.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 36.1, shall result in the rejection of the Bid.

37. Conversion to Single Currency

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

38. Margin of Preference

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

39. Comparison of Financial Parts

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

40. Abnormally Low Bids

- 40.1 An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the

extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid price.

- 40.2 In the event of identification of a potentially Abnormally Low Bid, the Employer shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in correlation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.
- 40.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to deliver the contract for the offered tender price, the Employer shall reject the Bid.
- 41. Unbalanced or Front Loaded Bids**
- 41.1 If the Bid for an admeasurement contract, which results in the lowest evaluated cost, in the Employer's opinion, seriously unbalanced or front loaded the Employer may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Bid prices with the scope of works, proposed methodology, schedule and any other requirements of the bidding document.
- 41.2 After the evaluation of the information and detailed price analyses presented by the Bidder, the Employer may as appropriate:
- (a) accept the Bid; or
 - (b) require that the amount of the performance security be increased at the expense of the Bidder to a level not exceeding 20% of the Contract price; or
 - (c) reject the Bid.
- 42. Most Advantageous Bid**
- 42.1 Having compared the evaluated costs of Bids, the Employer shall determine the Most Advantageous Bid. The Most Advantageous Bid is the Bid of the Bidder that meets the Qualification Criteria and whose Bid has been determined to be:
- (a) substantially responsive to the bidding document; and
 - (b) the lowest evaluated cost.
- 43. Employer's Right to Accept Any Bid, and to Reject Any or All Bids**
- 43.1 The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, Bid Securities, shall be promptly returned to the Bidders.
- 44. Standstill Period**
- 44.1 The Contract shall not apply
- 45. Notification of Intention to Award**
- 45.1 The Employer shall send to each Bidder (that has not already been notified that it has been unsuccessful) the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:
- (a) the name and address of the Bidder submitting the successful Bid;
 - (b) the Contract price of the successful Bid;
 - (c) the names of all Bidders who submitted Bids, and their Bid prices as readout, and as evaluated;
 - (d) a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the notification is addressed) was unsuccessful, unless the price information in c) above already reveals the reason;
 - (e) deleted
 - (f) instructions on how to request a debriefing and/or submit a complaint.

J. Award of Contract

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- 46. Award Criteria** 46.1 Subject to ITB 43, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid as specified in ITB 42.
- 47. Notification of Award** 47.1 Prior to the expiration of the Bid validity the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification of award (hereinafter and in the Conditions of Contract and Contract Forms called the “Letter of Acceptance”) shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the contract (hereinafter, and in the Conditions of Contract and Contract Forms, called “the Contract Price”).
- 47.2 Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:
- (a) name and address of the Employer;
 - (b) name and reference number of the contract being awarded, and the selection method used;
 - (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;
 - (d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor;
 - (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope; and
 - (f) successful Bidder’s Beneficial Ownership Disclosure Form, if specified in BDS ITB 49.1
- 47.3 The Contract Award Notice shall be published on the Employer’s website with free access if available, or in at least one newspaper of national circulation in the Employer’s country, or in the official gazette. The Employer shall also publish the contract award notice in UNDB online.
- 47.4 Until a formal Contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.
- 48. Debriefing by the Employer** 48.1 On receipt of the Employer’s Notification of Intention to Award referred to in ITB 45.1, an unsuccessful Bidder has three (3) Business Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.
- 48.2 Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) Business Days, unless the Employer decides, for justifiable reasons, to provide the debriefing outside this timeframe.
- 48.3 Where a request for debriefing is received by the Employer later than the three (3)-Business Day deadline, the Employer should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of Public Notice of Award of contract.
- 48.4 Debriefings of unsuccessful Bidders may be done in writing or verbally. The Bidder shall bear their own costs of attending such a debriefing meeting.
- 49. Signing of Contract** 49.1 The Employer shall send to the successful Bidder the Letter of Acceptance including the Contract Agreement, and, if specified in the BDS, a request to submit the Beneficial Ownership Disclosure Form providing additional information on its beneficial ownership. The Beneficial Ownership

- Disclosure Form, if so requested, shall be submitted within eight (8) Business Days of receiving this request.
- 49.2 The successful Bidder shall sign, date and return to the Employer, the Contract Agreement within twenty-eight (28) days of its receipt.
- 50. Performance Security**
- 50.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with the General Conditions of Contract, subject to ITB 41.2 (b), using for that purpose the Performance Security and ES Performance Security Forms included in Section X, Contract Forms, or another form acceptable to the Employer. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Employer. A foreign institution providing a bond shall have a correspondent financial institution located in the Employer's Country, unless the Employer has agreed in writing that a correspondent financial institution is not required.
- 50.2 Failure of the successful Bidder to submit the above-mentioned Performance Security and, if required in the BDS, the Environmental and Social (ES) Performance Security, or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the Bidder offering the next Most Advantageous Bid.
- 51. Adjudicator**
- 51.1 The Employer proposes the person named **in the BDS** to be appointed as Adjudicator under the Contract, at the hourly fee **specified in the BDS**, plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the Particular Conditions of Contract (PCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.
- 52. Procurement Related Complaint**
- 52.1 The procedures for making a Procurement-related Complaint are as specified in the BDS.

Section II-Bid Data Sheet (BDS)

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

A. General	
ITB 1.1	<p>The reference number of the Request for Bids (RFB) is: 007/GSCDL/2020</p> <p>The Employer is: Gangtok Smart City Development Limited</p> <p>The name of the RFB is: Improvement of Selected feeder roads in and around Gangtok</p>
ITB 1.2 (a)	The number and identification of this RFB is: SIK-GAN-0078
ITB 1.2(a)	N.A.
ITB 2.1	<p>The GSCDL is Gangtok Smart City Development Ltd.</p> <p>Financing Agreement amount: Rs 1000 crore.</p> <p>The name of the Project is: Smart City Mission,</p> <p>Funded by the Ministry of Housing and Urban Affairs, Government of India and the Urban Development Department, Government of Sikkim</p>
ITB 4.1	Maximum number of members in the JV shall be: Three
ITB 4.5	deleted
B. Contents of Bidding Document	
ITB 7.1	<p>For <u>Clarification of Bid purposes</u> only, the Employer's address is:</p> <p>Attention: Mr. Bhupendra Kothari, Chief Technical Officer</p> <p>Address: Gangtok Smart City Development Limited, Sokaythang, Gangtok, East Sikkim</p> <p>City: Gangtok, Pin Code:737102, India</p> <p>Phone Number: 8116679989</p> <p>Electronic mail address: ctosmartcity.gangtok@gmail.com</p>
ITB 7.1	<p>Requests for clarification should be received by the Employer no later than seven days.</p> <p>Web page: https://smartcitygangtok.com/; https://smartnet.niua.org/</p>
ITB 7.4	N.A.
ITB 7.6	Web page: http://smartcitygangtok.com/
C. Preparation of Bids	
ITB 10.1	The language of the Bid is: “English”

	All correspondence exchange shall be in English language. Language for translation of supporting documents and printed literature is English
ITB 11.2 (h)	The Bidder shall submit the following additional documents in its Bid: N.A.
ITB11.3 (b)	The following additional schedules shall be submitted with the Bid: None apart from what is already indicated in Bidding Document.
ITB 11.3 (d)	The Bidder shall submit the following additional documents in its Bid: None apart from what is already indicated in the Bidding Document.
ITB 13.1	Alternative Bids “shall not be” considered.
ITB 13.2	Alternative times for completion “shall not be” permitted.
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: Not Applicable.
ITB 14.5	The prices quoted by the Bidder “shall not be” subject to adjustment during the performance of the Contract.
ITB 15.1	The price shall be quoted by the Bidder in: Indian Rupees INR
ITB 18.1	The Bid shall be valid until: Sixty days.
ITB 18.3 (a)	The Bid price shall be adjusted by the following factor(s): Not Applicable (NA)
ITB 19.1	Bid Security shall be required; a Bid-Securing Declaration shall not be required. A Bid Security “shall be” required. A Bid-Securing Declaration “shall not be” required. The Bid Security shall be required, the amount and currency of the Bid Security shall be: Rs. 1, 54, 83,432/- (Rupees One Crore Fifty Four Lakh Eighty Three Thousand Four Hundred and Thirty Two) only.
ITB 19.3 (d)	Only Demand Draft drawn in favour of Gangtok Smart City Development Ltd, payable at Gangtok and issued by a Nationlised Bank.
ITB 19.9	not applicable
ITB 20.3	The written confirmation of authorization to sign on behalf of the Bidder shall consist of Power of Attorney.
D. Submission of Bids	
ITB 21.2	In addition to the original of the Bid, the number of copies is: One (Total Two)

ITB 22.1	<p>For Bid submission purposes only, the Employer's address is: Gangtok Smart City Development Limited, Sokaythang</p> <p>Attention: Chief Executive Officer, GSCDL, Gangtok.</p> <p>The deadline for Bid submission is:</p> <p>Date: 6th April 2021</p> <p>Time: 1 pm (1300 hrs)</p> <p>Bidders shall not have the option of submitting their Bids electronically.</p>
E. Public Opening of Technical Parts of Bids	
ITB 25.1	<p>The Bid opening shall take place at:</p> <p>City: Gangtok, Sikkim, India</p> <p>Date: 6th April 2021</p> <p>Time: 3 pm (1500 hrs)</p>
ITB 25.1	Omitted
ITB 25.6	<p>The Letter of Bid – Technical Part and the sealed envelope marked “SECOND ENVELOPE: FINANCIAL PART” shall be initialed by three representatives of the Employer conducting Bid opening.</p>
F. Evaluation of Bids – General Provisions	
G. Evaluation of Bids - Technical Parts	
ITB 33.1	<p>At this time the Employer does not intend to execute certain specific parts of the Works by subcontractors selected in advance.</p>
ITB 33.2	not applicable
ITB 33.3	<p>Contractor's proposed subcontracting: Maximum percentage of subcontracting permitted is: Nil_% of the total contract amount or Nil % of the volume of work.</p>
H. Public Opening of Financial Parts	
ITB 34.2 (c)	<p>Following the completion of the evaluation of the Technical Parts of the Bids, the Employer will notify all Bidders of the location, date and time of the public opening of Financial Parts. Any interested party who wishes to attend this public opening may contact Mr. Binay Lama, Divisional Engineer, Gangtok Smart City Dev. Ltd. e.mail:- degscdl@gmail.com and request to be notified of the location, date and time of the public opening of Financial Parts. The request should be made before the deadline for submission of Bids, stated above.</p>
ITB 34.5	<p>The Letter of Bid – Financial Part and Schedules shall be initialed by three representatives of the Employer conducting Bid opening.</p>
I. Evaluation of Bids - Financial Parts	

ITB 37.1	The currency that shall be used for Bid evaluation shall be in Indian Rupees. No other currency shall be admissible.
ITB 38.1	A margin of domestic preference “ shall not ” apply.
J. Award of Contract	
ITB 49.1	The successful Bidder shall not submit the Beneficial Ownership Disclosure Form.
ITB 50.1 and 50.2	The successful Bidder shall not be required to submit an Environmental and Social (ES) Performance Security.
ITB 51 Adjudicator	The Adjudicator proposed by the Employer is: The Chief Engineer Urban Development Department, Govt of Sikkim.
ITB 52.1	<p>If a Bidder wishes to make a Procurement-related Complaint, the Bidder shall submit its complaint following these procedures, In Writing to:</p> <p style="padding-left: 40px;">For the attention: Mr. Bhupendra Kothari</p> <p style="padding-left: 40px;">Title/position: Chief Technical Officer</p> <p style="padding-left: 40px;">Employer: Gangtok Smart City Development Limited</p> <p style="padding-left: 40px;">Email address: ctosmartcity.gangtok@gmail.com</p> <p>In summary, a Procurement-related Complaint may challenge any of the following:</p> <ol style="list-style-type: none"> 1. the terms of the Bidding Documents; 2. the Employer’s decision to exclude a Bidder from the procurement process prior to the award of contract; and 3. the Employer’s decision to award the contract.

Section III - Evaluation and Qualification Criteria

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

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Section III - Evaluation and Qualification Criteria

1. Technical Part

1.1 Adequacy of Technical Proposal

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

1.2 Alternative Technical Solutions for specified parts of Works

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

Not Applicable

1.3 Specialized Subcontractors

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

Not Applicable

2.1 Qualification Criteria

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

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

Eligibility and Qualification Criteria				Compliance Requirements			Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each member	At least one member	
2. Legality / Non-Performance							
2.1	History of Non-Performing Contracts / Legality	Non-performance of a contract or not legally entitled.	Must meet requirement	Must meet requirements	Must meet requirement	N/A	Letter of Bid
3. Financial Situation and Performance							
3.1	Financial Capabilities	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements upto 20% of the Bid Value.	Must meet requirement	Must meet Requirement	N/A	N/A	Bank Statement for last one year
		(ii) For JV or Companies or Firms, the audited balance sheets for last three years	N/A	Must meet requirements	Must meet requirement	N/A	Copy of Statement signed by Chartered Accountant
		(iii) Solvency Certificate for 15 % of the Bid Value issued by a Nationalised Bank	Must meet requirements	Must meet requirements	Must meet requirement		Certificate issued by Bank
4. Experience							
4.1 (a)	General Construction Experience	Experience under construction contracts in the role of prime contractor, having undertaken a. Three similar works costing not less than 40% of the Bid Value or	Must meet requirement	N/A	Must meet requirement	N/A	Submit copies of completion certificate issued by the authority/employer

Eligibility and Qualification Criteria				Compliance Requirements			Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All members Combined	Each member	At least one member	
		b. Two similar works costing not less than 50% of the Bud value or c. One similar work costing not less than 80% of the bid value.					
4.2	Financial turnover on construction works	Should be at least 20% of Bid value during the last three years ending 31 st March 2020.	Must meet requirements	Must meet requirement	N/A		Submit copies of payment certificates issued by the authority/employer

5. Key Personnel

The Bidder must demonstrate that it will have suitably qualified (and in adequate numbers) Key Personnel, as below:

Item No.	Position/specialization	Relevant academic qualifications	Minimum years of relevant work experience
1	Civil Engineer	Diploma /Degree in Civil Engineering	Two years working in similar work environments
2	Supervisor	-	Two years working in similar work environments

6. Equipment

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

[Specify requirements for each lot as applicable]

No.	Equipment Type and Characteristics	Minimum Number required
1	Crawler Excavator	1
2	Road Roller	4
3	Truck/Tippers	6
4	Concrete Mixer Machine	4
5	Concrete Vibrator	4
6	Bitumen boiler	2
7	Paver Machine	2

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

7. Multiple Contracts: NA

2. Financial Part

2.1 Margin of Preference

The Employer will not grant a margin of preference.

2.2 Multiple Contracts

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

Award Criteria for Multiple Contracts:

Lots

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

Packages

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

2.3 Sustainable procurement

As specified and under the law of the land

2.4 Alternative Completion Time

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

Not Applicable

2.5 Alternative Technical Solutions for specified parts of the Works

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

Not Applicable

2.6 Other criteria

If permitted under ITB 35.1(f):

N.A.

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Letter of Bid - Technical Part

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

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

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

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

RFB No: 007/GSCDL/2020, Project identification No: SIK-GAN-077.

To: The CEO, Gangtok Smart City Development Ltd.

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

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

In submitting our Bid, we make the following declarations:

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with Instructions to Bidders (ITB 8);
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4; Further I am a citizen of India / our JV-Company is registered in India and legally entitled to take part in the bidding process;
- (c) **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration or Proposal-Securing Declaration in the Employer's country in accordance with ITB 4.7;
- (d) **Conformity:** We offer to execute in conformity with the bidding document the following Work "Improvement of Selected Feeder Roads in and around Gangtok".
- (e) **Bid Validity:** Our Bid shall be valid until [insert day, month and year in accordance with ITB 18.1], and it shall remain binding upon us and may be accepted at any time on or before this date;
- (f) **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security in accordance with the bidding document;
- (g) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder or as a subcontractor, and we are not participating in any other Bid(s) as a Joint Venture member, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;
- (h) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not under temporary suspension or a debarment imposed by the GSCDL or the National or State Government;
- (i) **State-owned enterprise or institution:** [select the appropriate option and delete the other] [We are not a state-owned enterprise or institution] / [We are a state-owned enterprise or institution but meet the requirements of ITB 4.6];
- (j) **Binding Contract:** We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (k) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive; and
- (l) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption;
- (m) **Adjudicator:** We accept the appointment of the Chief Engineer UDD, Govt of Sikkim, as the Adjudicator.
- (n) **GSTIN:**(certificate copy enclosed)
- (o) **PAN:**(Card copy enclosed)

- (p) **CIN:**(copy enclosed in case of Companies only)
- (q) **Registration Certificate/ Enlistment Certificate:** Issued by the Authority to practice/trade/work as contractor. Copy to be enclosed
- (r) **Mobile No:**..... (not to be changed during the contract period or to inform the project manager if it is being changed)
- (s) **Email address:**.....
- (t) **Bank Account Number:**....., Branch
(IFSC Code.....)

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

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

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

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

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

Date signed _____ day of _____, _____

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

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

Appendix A to Technical Part: Technical Proposal

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

CODE OF CONDUCT FOR CONTRACTOR'S PERSONNEL

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

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

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

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

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

REQUIRED CONDUCT

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
 - a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
 - b. wearing required personal protective equipment;
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Abuse (SEA) and Sexual Harassment (SH);
11. report violations of this Code of Conduct; and
12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

RAISING CONCERNS

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

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

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

Name of Bidder/Contractor: [insert name]

Signature: _____

Date: (day month year): _____

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM**BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)**

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

(1) **Examples of sexual exploitation and abuse** include, but are not limited to:

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

(2) **Examples of sexual harassment in a work context**

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

Appendix B to Technical Part: Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment (a) <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment (b) <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

(Note Add Table for more equipments)

Appendix C to Technical Part: Key Personnel

Form PER -1: Key Personnel
Schedule

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

Key Personnel

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

Form PER-2: Resume and Declaration
Key Personnel
(Bidder to submit for personnel)

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

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

Project	Role	Duration of involvement	Relevant experience
[main project details]	[role and responsibilities on the project]	[time in role]	[describe the experience relevant to this position]

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Declaration

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

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

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

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

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

Name of Key Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day month year): _____

Appendix D to Technical Part: Bidder's Qualification

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

Form ELI -1.1**Bidder Information Form**

Date: _____

RFB No. and title: _____

Page _____ of _____ pages

Bidder's name

In case of Joint Venture (JV), name of each member:

Bidder's actual or intended country of registration:

[indicate country of Constitution]

Bidder's actual or intended year of incorporation:

Bidder's legal address [in country of registration]:

Bidder's authorized representative information

Name: _____

Address: _____

Telephone/Fax numbers: _____

E-mail address: _____

1. Attached are copies of original documents of

- ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4.
- ☐ In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1.
- ☐ In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing:
- Legal and financial autonomy
 - Operation under commercial law
 - Establishing that the Bidder is not under the supervision of the Employer

2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.[If required under BDS ITB 49.1, the successful Bidder shall provide additional information on beneficial ownership, using the Beneficial Ownership Disclosure Form.]

Form ELI -1.2**Bidder's JV Information Form**
(to be completed for each member of Bidder's JV)

Date: _____
RFB No. and title: _____
Page _____ of _____ pages

Bidder's JV name:

JV member's name:

JV member's country of registration:

JV member's year of constitution:

JV member's legal address in country of constitution:

JV member's authorized representative information

Name: _____

Address: _____

Telephone/Fax numbers: _____

E-mail address: _____

1. Attached are copies of original documents of

- ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4.
- ☐ In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Employer, in accordance with ITB 4.6.

2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.[If required under BDS ITB 49.1, the successful Bidder shall provide additional information on beneficial ownership for each JV member using the Beneficial Ownership Disclosure Form.]

Form for General Construction Experience

Bidder's Name: _____

Date: _____

JV Member's Name _____

RFB No. and title: _____

Page _____ of _____ pages

Starting Year	Ending Year	Contract Identification	Role of Bidder
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	

NOTE:

1. **Attach Completion Certificates issued by the Authority / Employer**
2. **For Financial Turnover on Construction works bidder shall submit the Payment Certificates issued by the Authority/ Employer.**

Letter of Bid -Financial Part

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

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

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

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

Request for Bid No.: [insert identification]

To: The CEO, Gangtok Smart City Development Ltd.

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

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

(a) **Bid Validity:** Our Bid shall be valid until [insert day, month and year in accordance with ITB 18.1], and it shall remain binding upon us and may be accepted at any time on or before this date;

(b) **Total Price:** The total price of our Bid, is as below:

- | | | |
|----|-----------------------|------------|
| a. | Basic Cost as per BOQ | : Rs..... |
| b. | Add GST 12% | : Rs..... |
| c. | Add Labour Cess 1% | : Rs |
| d. | Total Bid Price | : Rs..... |

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

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

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

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

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

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

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

Appendix A to Financial Part: Schedules

Dayworks /Provisional Sums and Bill of Quantities

A. Daywork Schedule /Provisional Sums/Lumpsum

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

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

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

Bill of Quantities**1. IMPROVEMENT OF FEEDER ROAD FROM (N.H.10) HUNGRY JACK PRIVATE STAND JUNCTION TO PALZOR STUDIUM JUNCTION VIA DPH IN GANGTOK.****Length : 0.774 km**

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	3870.000	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	928.800	sqm		
3	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401)	120.000	m3		
4	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	80.000	m3		
5	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1:2 (1cement, 1 coarse sand,2 graded stone aggregate of 20mm & down size).	48.000	m3		
6	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	800.000	m2		
7	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	3870.000	m2		

8	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100°C, protruding 1 mm to 4 mm over mastic surface, all.	3870.000	m2		
9	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	147.600	m3		
10	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	373.452	m3		
11	Provision for extra items under water and liquid mud i/c pumping of water and providing gratings over drain wherever necessary, etc.	1.000	job		
	(To be paid as per actual measurement)				
12	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	44.776	m3		
13	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	19.306	m3		
14	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	429.784	m3		

15	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	108.000	m3		
16	Supplying, bending and placing in position mild steel (6mm dia.) including straightening, cutting, bending and placing in position including binding wire complete.				
	T.S	116.64	qtls		
	M.S	12.96	qtls		
17	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	91.580	m2		
18	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	61.335	m3		
19	Provision for construction of Geo-Textile materials for damaged and sinking zone at take off point including 30.00 m each RME wall, Geocells, Nonwovens Geotextile, BGM and Geogrid all complete	6.000	nos		
20	Installation charges for fitting fixing of RME wall, all complete.	6.00	nos		
21	Installation charges for Geo-Textile materials for damaged and sinking zone at take off point by Geocells, Nonwovens Geotextile, BGM and Geogrid all complete	1314.00	m2		
22	Embankment Construction with Material Obtained from Borrow Pits (Construction of embankment with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2)	1200.000	m3		
23	Supplying, fabricating, fitting and fixing steel tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shape washer etc. as per the standard specification and design and direction of Engineer - in- Charge all complete.	23444.832	kg		
24	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	929.000	m2		

25	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	1087.470	m2		
26	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	31.347	m2		
27	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1470.600	m2		
28	Providing, fitting, fixing of 24 BWG Pre-painted HULAS sheet roofing with lapping of 150mm (two corrugation) with G.I. hooks, bolts and nut 8mm dia with bitumen, GI limpet washers filled with white bad including carriage all complete.	40.000	m2		
29	Providing & fixing 15cm wide 45cm overall semicircular pre-painted (HULLAS) sheet (Class I) gutter with iron brackets 40x3mm size, bolts filled with epoxy in each bolt, nuts (8 to 10 gm per bolt), washers etc. including making, connection with rain water pipes.	20.000	m		
30	Providing fitting and fixing 30cm deep 24BWG Prepainted HULAS sheet eaves board including (50x25mm) dressed sal timber beading and M.S. rod brackets all complete.	35.200	m		
31	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	80.000	m		

32	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.000	nos		
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33	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	359.000	m		
34	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.000	m		
35	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	8.000	Each		
	60 cm equilateral triangle	12.000	Each		
	60 cm circular	8.000	Each		
36	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	30.000	Sqm		
37	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	232.200	Sqm		

38	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		774.000	Mtrs		
39	Type - B, "THRIE" : Metal Beam Crash Barrier (Providing and erecting a "Three" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m center to center, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanized by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 810)		21.000	Mtrs		
40	Laying Reinforced Cement Concrete Pipe NP4/prestressed concrete pipe on first class bedding in single row . (Laying Reinforced cement concrete pipe NP4/prestressed concrete pipe for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets)		45.000	m		
41	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	309.136	cum		
		Haulage	34128.614	km-cum		
		Unloading	586.013	cum		
		Haulage	77353.742	km-cum		
		Unloading	530.170	cum		
		Haulage	152688.940	km-cum		
		Unloading	39.600	cum		
		Haulage	2376.000	km-cum		

42	Carriage of stock materials within 10 km radius(Cement or Steel)						
		Unloading	1670.281	qtls			
		Haulage	16702.815	qtls-km			
		Unloading	817.800	qtls			
		Haulage	98136.000	qtls-km			
43	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)				L.S		

2. IMPROVEMENT OF FEEDER ROAD FROM (N.H.10) JEEWAN THENG MARG TO LOWER FOROST COLONY VIA TNSS IN GANGTOK.

Length : 1.875 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	9300.000	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	2250.000	sqm		
3	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401)	196.875	m3		
4	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	118.125	m3		
5	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	3075.000	m2		

6	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	9375.000	m2		
7	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	9375.000	m2		
8	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately). By manual means.	39.600	m3		
9	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	341.458	m3		
10	Provision for extra items under water and liquid mud i/c pumping of water and providing gratings over drain wherever necessary, etc.	1.000	job		
	(To be paid as per actual measurement)				
11	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	50.008	m3		
12	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	32.089	m3		

13	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of	274.104	m3		
14	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	529.304	m3		
15	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	85.080	m2		
16	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	61.335	m3		
17	Supplying, fabricating, fitting and fixing steel tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shape washer etc. as per the standard specification and design and direction of Engineer - in- Charge all complete.	7517.132	kg		
18	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	5625.000	m2		
19	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	2634.375	m2		

20	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	75.938	m2		
21	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	3562.500	m2		
22	Providing, fitting, fixing of 24 BWG Pre-painted HULAS sheet roofing with lapping of 150mm (two corrugation) with G.I. hooks, bolts and nut 8mm dia with bitumen, GI limpet washers filled with white bad including carriage all complete.	40.000	m2		
23	Providing & fixing 15cm wide 45cm overall semicircular pre-painted (HULLAS) sheet (Class I) gutter with iron brackets 40x3mm size, bolts filled with epoxy in each bolt, nuts (8 to 10 gm per bolt), washers etc. including making, connection with rain water pipes.	20.000	m		
24	Providing fitting and fixing 30cm deep 24BWG Prepainted HULAS sheet eaves board including (50x25mm) dressed sal timber beading and M.S. rod brackets all complete.	35.200	m		

25	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	80.000	m		
26	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.000	nos		
27	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	560.000	m		
28	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	35.000	m		
29	Retro- reflectorized Traffic signs (Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	8.000	Each		
	60 cm equilateral triangle	12.000	Each		
	60 cm circular	8.000	Each		
30	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	30.000	Sqm		

31	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	168.000	Sqm		
32	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	560.000	Mtrs		
33	Type - B, "THRIE" : Metal Beam Crash Barrier (Providing and erecting a "Three" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m center to center, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanized by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 810)	21.000	Mtrs		
34	Laying Reinforced Cement Concrete Pipe NP4/prestressed concrete pipe on first class bedding in single row . (Laying Reinforced cement concrete pipe NP4/prestressed concrete pipe for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets)	30.000	m		

35	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum). SOR 2012 , Item				
	Unloading	690.889	cum		
	Haulage	76274.099	km-cum		
	Unloading	508.618	cum		
	Haulage	67137.550	km-cum		
	Unloading	1178.637	cum		
	Haulage	339447.590	km-cum		
	Unloading	39.600	cum		
	Haulage	2376.000	km-cum		
36	Carriage of stock materials within 10 km radius(Cement or Steel) SOR 2012 item 25.7				
	Unloading	5172.131	qtls		
	Haulage	51721.314	qtls-km		
	Unloading	604.388	qtls		
	Haulage	72526.500	qtls-km		
37	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 %		L/S		

3. IMPROVEMENT OF FEEDER ROAD FROM (N.H.10) FIVEWAYS JUNCTION TO DEORALI GIRLS SCHOOL IN GANGTOK.

Length : 0.386

KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead up to 1000 meters.)	1930.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	463.20	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	2380.000	m2		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	2380.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing gratings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	156.33	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	156.33	m2		

8	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of	733.40	m ²		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	150.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	27.000	m ³		
13	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
14	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		

15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		115.80	Sqm		
16	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	42.516	cum		
		Haulage	4693.8106	km-cum		
		Unloading	6.4148	cum		
		Haulage	846.75888	km-cum		
		Unloading	148.1632	cum		
		Haulage	42671.002	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
17	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	347.33	qtls		
		Haulage	3473.3414	qtls-km		
		Unloading	142.80	qtls		
		Haulage	17136	qtls-km		
18	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

**4. IMPROVEMENT OF FEEDER ROAD FROM (N.H.10) DEORALI JUNCTION TO SYARI HOUSING QUATER i/c
BRANCH ROAD TO UPPER SYARI IN GANGTOK.**

Length : 1.260 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead up to 1000 meters.)	5040.00	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	1512.00	sqm		
4	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	5040.00	m2		
5	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	7560.00	m2		
6	Provision for extra items under water and liquid mud i/c pumping of water and providing gratings over drain wherever	1	job		
	(To be paid as per actual measurement)				
7	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	510.30	m2		
8	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	51.03	m2		

9	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2394.00	m2		
10	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
11	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
12	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	350.00	m		
13	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	63.000	m3		
14	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	4	Each		
	60 cm equilateral triangle	4	Each		
	60 cm circular	4	Each		
15	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		

16	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		105.00	Sqm		
17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	113.252	cum		
		Haulage	12502.977	km-cum		
		Unloading	14.9680	cum		
		Haulage	1975.7707	km-cum		
		Unloading	450.0608	cum		
		Haulage	129617.51	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
18	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	900.55	qtls		
		Haulage	9005.4916	qtls-km		
		Unloading	453.60	qtls		
		Haulage	54432	qtls-km		
19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

5. IMPROVEMENT OF FEEDER ROAD FROM (N.H.10) DEORALI JUNCTION TO TIBETOLOGY IN GANGTOK.

Length : 1.338

KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material within all lifts and lead up to 1000 meters.)	5619.60	sqm		
3	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	36.572	m3		
4	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	9.143	m3		
5	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	18.286	m3		
6	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	61.468	m3		
7	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	1584.00	sqm		
8	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	5619.60	m3		

9	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	5619.60	m2		
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10	Provision for extra items under water and liquid mud i/c pumping of water and providing gratings over drain wherever necessary, etc. (To be paid as per actual measurement)	1	job		
11	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	541.89	m2		
12	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	54.19	m2		
13	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2542.20	m2		
14	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
15	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
16	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	200.00	m		
17	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	36.000	m3		

18	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)						
	90 cm equilateral triangle			4	Each		
	60 cm equilateral triangle			4	Each		
	60 cm circular			4	Each		
19	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)			10.00	Sqm		
20	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)			60.00	Sqm		
21	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)			600.00	Mtrs		
22	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).						
		Unloading		103.063	cum		
		Haulage		11378.14	km-cum		
		Unloading		68.5725	cum		
		Haulage		9051.566	km-cum		
		Unloading		347.0614	cum		
		Haulage		99953.677	km-cum		
		Unloading		39.60	cum		
		Haulage		2376.00	km-cum		
23	Carriage of stock materials within 10 km radius(Cement or Steel)						
		Unloading		3360.53	qtls		
		Haulage		33605.301	qtls-km		
		Unloading		351.23	qtls		
		Haulage		42147.00	qtls-km		

24	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)		L/S		
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6. IMPROVEMENT OF FEEDER ROAD FROM N.H. 10 TO GMC OFFICE IN GANGTOK.

Length : 0.10 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	450.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to	120.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with	500.00	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all. SOR 2012	500.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain (To be paid as per actual measurement)	1	job		
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	40.50	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-	4.05	m2		

8	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of	174.80	m2		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe. SOR 2012 item 24.24.1	200.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of	10.00	nos		
11	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
12	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free	30.00	Sqm		
13	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	3.500	cum		
	Haulage	386.400	km-cum		
	Unloading	26.00	cum		
	Haulage	7488.00	km-cum		
	Unloading	39.60	cum		
	Haulage	2376.00	km-cum		
14	Carriage of stock materials within 10 km radius(Cement or Steel)				
	Unloading	18.09	qtls		
	Haulage	180.875	qtls-km		
	Unloading	4.25	qtls		
	Haulage	510.00	qtls-km		
15	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per		L/S		

7. IMPROVEMENT OF FEEDER ROAD FROM FOREST SECRETARIAT TO FOREST ANNEXURE BUILDING IN GANGTOK.

Length : 0.165 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	693.00	sqm		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	6.197	m3		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	1.549	m3		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	4.647	m3		
5	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	198.00	sqm		
6	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	12.60	m3		
7	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	168.000	m2		

8	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	693.000	m2		
9	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	10.08	m3		
10	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	693.00	m2		
11	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
12	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	66.83	m2		
13	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	6.68	m2		

14	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	313.50	m2		
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15	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
16	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
17	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	120.00	m		
18	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	21.600	m3		
19	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		

20	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)		10.00	Sqm		
21	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		36.00	Sqm		
22	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		100.00	Mtrs		
23	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	31.623	cum		
		Haulage	3491.1825	km-cum		
		Unloading	23.0805	cum		
		Haulage	3046.6289	km-cum		
		Unloading	73.3181	cum		
		Haulage	21115.616	km-cum		
		Unloading	39.60	cum		
		Haulage	2376.00	km-cum		
24	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	279.96	qtls		
		Haulage	2799.6371	qtls-km		
		Unloading	48.84	qtls		
		Haulage	5860.512	qtls-km		
25	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)					

8. IMPROVEMENT OF FEEDER ROAD FROM N.H.10 (KHANGRI PETROL PUMP TO BAHAI SCHOOL TADONG IN GANGTOK.

Length : 0.84 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	4200.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	1008.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	315.00	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	4200.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing gratings over drain wherever necessary, etc.				
	(To be paid as per actual measurement)	1	job		
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	340.20	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	34.00	m2		

8	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1596.00	m ²		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	54.000	m ³		
13	Retro- reflectorized Traffic signs (Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	3	Each		
	60 cm equilateral triangle	3	Each		
	60 cm circular	3	Each		
14	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro- reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		

15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes.)		90.00	Sqm		
16	Carriage of non-stock materials (Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	81.113	cum		
		Haulage	8954.8531	km-cum		
		Unloading	12.8297	cum		
		Haulage	1693.5178	km-cum		
		Unloading	267.2064	cum		
		Haulage	76955.443	km-cum		
		Unloading	39.60	cum		
		Haulage	2376.00	km-cum		
17	Carriage of stock materials within 10 km radius (Cement or Steel)					
		Unloading	665.79	qtls		
		Haulage	6657.9228	qtls-km		
		Unloading	252.00	qtls		
		Haulage	30240.00	qtls-km		
18	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

9. IMPROVEMENT OF FEEDER ROAD FROM N.H.10 NAM-NANG JUNCTION TO STAR HALL IN GANGTOK.

Length : 1.251 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	6255.00	sqm		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	36.572	m3		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	9.143	m3		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	27.429	m3		
5	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	6255.00	m2		
6	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	6255.00	m2		
7	Provision for extra items under water and liquid mud i/c pumping of water and providing gratings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
8	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	506.66	m2		

9	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	50.67	m2		
10	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2376.90	m2		
11	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
12	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
13	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
14	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	54.000	m3		
15	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	3	Each		
	60 cm equilateral triangle	3	Each		
	60 cm circular	3	Each		

16	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)			10.00	Sqm		
17	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)			90.00	Sqm		
18	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)			600.00	Mtrs		
19	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).						
		Unloading		118.812	cum		
		Haulage		13116.894	km-cum		
		Unloading		20.6012	cum		
		Haulage		2719.3624	km-cum		
		Unloading		397.3811	cum		
		Haulage		114445.74	km-cum		
		Unloading		39.60	cum		
		Haulage		2376.00	km-cum		
20	Carriage of stock materials within 10 km radius(Cement or Steel)						
		Unloading		1025.81	qtls		
		Haulage		10258.118	qtls-km		
		Unloading		390.94	qtls		
		Haulage		46912.50	qtls-km		
21	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)						

10. IMPROVEMENT OF FEEDER ROAD FROM NAM-NANG SLA JUNCTION TO DUKKI PAN DOKAN IN GANGTOK.

Length : 1.054 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	5270.00	sqm		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	12.272	m3		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	3.068	m3		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm &	9.204	m3		
5	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	5270.00	m2		
6	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	5270.00	m2		
7	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever	1	job		
	(To be paid as per actual measurement)				
8	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	426.87	m2		

9	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	42.69	m2		
10	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2002.60	m2		
11	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
12	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
13	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
14	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	54.000	m3		
15	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informative sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	4	Each		
	60 cm equilateral triangle	4	Each		
	60 cm circular	4	Each		

16	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)		30.00	Sqm		
17	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		90.00	Sqm		
18	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		200.00	Mtrs		
19	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	96.426	cum		
		Haulage	10645.452	km-cum		
		Unloading	15.4375	cum		
		Haulage	2037.7474	km-cum		
		Unloading	330.6698	cum		
		Haulage	95232.902	km-cum		
		Unloading	39.60	cum		
		Haulage	2376.00	km-cum		
20	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	492.88	qtls		
		Haulage	4928.8462	qtls-km		
		Unloading	329.38	qtls		
		Haulage	39525.00	qtls-km		
21	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

11. IMPROVEMENT OF FEEDER ROAD FROM BHANU PATH TO M.G. MARG (TIBET ROAD) IN GANGTOK.

Length : 0.780 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	3900.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	36.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	3900.00	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	3900.00	m2		
5	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses.	27.00	m3		
6	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	500.00	m2		
7	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	815.90	m2		

8	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	31.59	m2		
9	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1482.00	m2		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	100.00	m		
12	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	14.00	m		
13	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	9.000	m3		
14	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				

	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
15	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
16	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	30.00	Sqm		
17	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	500.00	Mtrs		

18	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	38.344	cum		
		Haulage	4233.13344	km-cum		
		Unloading	7.4966	cum		
		Haulage	989.54592	km-cum		
		Unloading	218.8388	cum		
		Haulage	63025.5744	km-cum		
		Unloading	39.60	cum		
		Haulage	2376.00	km-cum		
19	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	314.15	qtls		
		Haulage	3141.5226	qtls-km		
		Unloading	243.75	qtls		
		Haulage	29250.00	qtls-km		
20	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

12. IMPROVEMENT OF FEEDER ROAD FROM NEW SECRETERIAT TO OLD PALACE GATE IN GANGTOK.

Length : 0.690 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	4140.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	828.00	sqm		
3	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401)	360.00	m3		
4	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	216.00	m3		
5	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	2880.000	m2		
6	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	4140.000	m2		
7	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	172.80	m3		

8	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	4140.00	m2		
9	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses.	270.00	m3		
10	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	540.23	m3		
11	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
12	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	56.39	m3		
13	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	117.20	m3		
14	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	1002.47	m3		
15	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	900.54	m2		
16	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	1028.04	m3		
17	Providing and applying priming coat with ready mixed Red oxide, Zinc chromate primer on steel / galvanized Iron steel works including preparation of the surface complete.	600.00	m2		

18	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	879.45	m2		
19	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	27.95	m2		
20	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	912.00	m2		
21	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
22	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
23	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	90.000	m3		
24	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	14.00	m		

25	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
26	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
27	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes.)	207.00	Sqm		
28	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	600.00	Mtrs		
29	Provision for construction of Geo-Textile materials for damaged and sinking zone at take off point including 30.00 m each RME wall, Geocells, Nonwovens Geotextile, BGM and Geogrid all complete	10.000	nos		
30	Installation charges for fitting fixing of RME wall, all complete.	10.00	nos		
31	Installation charges for Geo-Textile materials for damaged and sinking zone at take off point by Geocells, Nonwovens Geotextile, BGM and Geogrid all complete	2190.00	M		
32	Provision for 3.00 m RCC culvert.	1	nos		
33	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	610.793	cum		
	Haulage	67431.5704	km-cum		

		Unloading	1243.1052	cum		
		Haulage	164089.884	km-cum		
		Unloading	1070.2141	cum		
		Haulage	308221.661	km-cum		
		Unloading	39.60	cum		
		Haulage	2376.00	km-cum		
34	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	5106.17	qtls		
		Haulage	51061.6978	qtls-km		
		Unloading	400.45	qtls		
		Haulage	48053.52	qtls-km		
35	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

13. IMPROVEMENT OF FEEDER ROAD FROM ENCHEY MONESTRY TO CHANDBARI IN GANGTOK.

Length : 1.29 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	5805.00	sqm		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	18.347	m3		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	4.587	m3		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	13.760	m3		
5	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	1548.00	sqm		
6	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	101.25	m3		
7	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	1350.000	m2		
8	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	5805.000	m2		

9	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	81.00	m3		
10	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	5805.00	m2		
11	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
12	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	522.45	m2		
13	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	52.25	m2		
14	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1881.00	m2		
15	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		

16	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
17	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	100.00	m		
18	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	18.000	m3		
19	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	3	Each		
	60 cm equilateral triangle	3	Each		
	60 cm circular	3	Each		

20	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)		20.00	Sqm		
21	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes.)		30.00	Sqm		
22	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		300.00	Mtrs		
23	Carriage of non-stock materials (Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	75.045	cum		
		Haulage	8284.9238	km-cum		
		Unloading	137.9266	cum		
		Haulage	18206.306	km-cum		
		Unloading	429.0988	cum		
		Haulage	123580.45	km-cum		
		Unloading	39.60	cum		
		Haulage	2376.00	km-cum		
24	Carriage of stock materials within 10 km radius (Cement or Steel)					
		Unloading	392.97	qtls		
		Haulage	3929.6726	qtls-km		
		Unloading	429.23	qtls		
		Haulage	51507.90	qtls-km		
25	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

14. IMPROVEMENT OF FEEDER ROAD AROUND TASHI NAMGYAL ACADEMY COMPLEX IN GANGTOK.

Length : 1.325

KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	6625.00	sqm		
2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	6625.00	sqm		
3	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	6625.00	m2		
4	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
5	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	536.63	m2		
6	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	53.66	m2		
7	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2517.50	m2		

8	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	180.00	m		
9	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
10	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	600.00	m		
11	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	54.000	m3		
12	Retro- reflectorized Traffic signs (Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	8	Each		
	60 cm equilateral triangle	8	Each		
	60 cm circular	8	Each		
13	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro- reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
14	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	397.50	Sqm		

15	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)			1600.00	Mtrs		
16	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).						
		Unloading	103.901	cum			
		Haulage	11470.626	km-cum			
		Unloading	25.6594	cum			
		Haulage	3387.0355	km-cum			
		Unloading	396.2128	cum			
		Haulage	114109.29	km-cum			
		Unloading	39.60	cum			
		Haulage	2376.00	km-cum			
17	Carriage of stock materials within 10 km radius(Cement or Steel)						
		Unloading	989.98	qtls			
		Haulage	9899.7756	qtls-km			
		Unloading	414.06	qtls			
		Haulage	49687.50	qtls-km			
18	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)						

15. IMPROVEMENT OF FEEDER ROAD FROM PALZAR STADIUM TO BYEPASS VIA COOPERATIVE (SICHEY) IN GANGTOK.

Length : 1.025 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	6150.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	1080.00	sqm		
3	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401)	112.50	m3		
4	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	67.50	m3		
5	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	900.000	m2		
6	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	6150.000	m2		
7	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	54.00	m3		

8	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	6150.00	m2		
9	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses.	405.00	m3		
10	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	223.21	m3		
11	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
12	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	44.66	m3		
13	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	29.78	m3		
14	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	281.87	m3		
15	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	180.54	m2		
16	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	333.00	m3		
17	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	415.13	m2		

18	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	41.51	m2		
19	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1947.50	m2		
20	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
21	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	40.00	nos		
22	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
23	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	54.000	m3		
24	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone,	14.00	m		
25	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	5	Each		

	60 cm equilateral triangle	5	Each		
	60 cm circular	5	Each		
26	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	30.00	Sqm		

27	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		90.00	Sqm		
28	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		500.00	Mtrs		
29	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	239.037	cum		
		Haulage	26389.664	km-cum		
		Unloading	665.7502	cum		
		Haulage	87879.024	km-cum		
		Unloading	606.7876	cum		
		Haulage	174754.83	km-cum		
		Unloading	39.60	cum		
		Haulage	2376.00	km-cum		
30	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	1908.47	qtls		
		Haulage	19084.738	qtls-km		
		Unloading	415.53	qtls		
		Haulage	49863.6	qtls-km		
31	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

16. IMPROVEMENT OF FEEDER ROAD PALZOR STADIUM TO DISTRICT ADMINISTRATIVE CENTRE (DAC) IN GANGTOK.

Sl.no	Particulars	Quantity	Unit	Rate	Amount
	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	8652.00	sqm		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of	51.030	m3		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	7.290	m3		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	4.050	m3		
5	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	113.501	m3		
6	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	108.00	sqm		
7	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401)	103.125	m3		
8	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	61.875	m3		
9	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	825.000	m2		

10	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	49.500	m3		
11	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	7210.00	m2		
12	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	7210.00	m2		
13	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
14	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	584.01	m2		
15	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	58.40	m2		

16	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2739.80	m2		
17	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
18	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
19	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	500.00	m		
20	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	90.000	m3		
21	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	8	Each		
	60 cm equilateral triangle	8	Each		
	60 cm circular	8	Each		
22	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	20.00	Sqm		

23	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		150.00	Sqm		
24	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		500.00	Mtrs		
25	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	179.505	cum		
		Haulage	19817.3828	km-cum		
		Unloading	205.7304	cum		
		Haulage	27156.4079	km-cum		
		Unloading	548.3785	cum		
		Haulage	157933.012	km-cum		
		Unloading	39.60	cum		
		Haulage	2376.00	km-cum		
26	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	1563.49	qtls		
		Haulage	15634.9295	qtls-km		
		Unloading	860.58	qtls		
		Haulage	103269	qtls-km		
27	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L/S		

**17. IMPROVEMENT OF FEEDER ROAD FROM TAMANG GUMPA JUNCTION TO COOPERATIVE JUNCTION VIA
WORK CELL IN GANGTOK.**

Length : 0.908 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	5448.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	1089.60	sqm		
3	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	45.00	m3		
4	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	5448.000	m2		
5	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	5448.000	m2		
6	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	36.00	m3		

7	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	5448.00	m2		
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8	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
9	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	367.74	m2		
10	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	36.77	m2		
11	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1710.00	m2		
12	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	100.00	m		
13	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	15.00	nos		
14	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
15	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	54.000	m3		

16	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	3	Each		
	60 cm equilateral triangle	3	Each		
	60 cm circular	3	Each		
17	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
18	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	90.00	Sqm		
19	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	100.00	Mtrs		
20	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	680.400	m3		
21	Provision for construction of Geo-Textile materials for damaged and sinking zone at take off point including 30.00 m each RME wall, Geocells, Nonwovens Geotextile, BGM and Geogrid all complete	9.000	nos		
22	Installation charges for fitting fixing of RME wall, all complete.	9.00	nos		
23	Installation charges for Geo-Textile materials for damaged and sinking zone at take off point by Geocells, Nonwovens Geotextile, BGM and Geogrid all complete	1971.00	M		

24	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).						
		Unloading		97.481	cum		
		Haulage		10761.88	km-cum		
		Unloading		72.2297	cum		
		Haulage		9534.3178	km-cum		
		Unloading		381.4224	cum		
		Haulage		109849.65	km-cum		
		Unloading		39.60	cum		
		Haulage		2376.00	km-cum		
25	Carriage of stock materials within 10 km radius(Cement or Steel)						
		Unloading		687.61	qtls		
		Haulage		6876.0538	qtls-km		
		Unloading		399.11	qtls		
		Haulage		47892.96	qtls-km		
26	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)				L/S		

18. IMPROVEMENT OF FEEDER ROAD FROM NAM-NANG TO LALL BAZAR JUNCTION IN GANGTOK.

Length : 0.120 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	480.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	144.00	sqm		
3	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	9.00	m3		
4	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	120.000	m2		
5	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	480.000	m2		
6	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	7.20	m3		
7	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	480.00	m2		

8	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain (To be paid as per actual measurement)	1	job		
9	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	48.60	m2		
10	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	4.86	m2		
11	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	228.00	m2		
12	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	100.00	m		
13	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of	15.00	nos		
14	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	120.00	m		
15	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size). SOR 2012 Item- 7.1.2	21.600	m3		

16	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	3	Each		

	60 cm equilateral triangle	3	Each		
	60 cm circular	3	Each		
17	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
18	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	36.00	Sqm		
19	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	25.572	cum		
	Haulage	2823.0958	km-cum		
	Unloading	17.0119	cum		
	Haulage	2245.5671	km-cum		
	Unloading	54.3466	cum		
	Haulage	15651.809	km-cum		
	Unloading	39.60	cum		
	Haulage	2376.00	km-cum		
20	Carriage of stock materials within 10 km radius(Cement or Steel)				
	Unloading	223.96	qtls		
	Haulage	2239.6471	qtls-km		
	Unloading	35.90	qtls		
	Haulage	4308.48	qtls-km		
21	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)		L/S		

19. IMPROVEMENT OF FEEDER ROAD FROM MG.MARG TO TIBET ROAD JUNCTION IN GANGTOK.

Length : 0.241 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	1205.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement .	289.20	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	1205.000	m2		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	1205.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever (To be paid as per actual measurement)	1	job		
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	97.61	m2		

7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment).	9.76	m2		
8	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	456.00	m2		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	100.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	7.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	240.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	43.200	m3		
13	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	3	Each		
	60 cm equilateral triangle	3	Each		
	60 cm circular	3	Each		

14	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	72.30	Sqm		
16	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	50.00	Mtrs		
17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
		Unloading	49.805	cum	
		Haulage	5498.4985	km-cum	
		Unloading	10.2637	cum	
		Haulage	1354.8142	km-cum	
		Unloading	101.7051	cum	
		Haulage	29291.075	km-cum	
		Unloading	39.6	cum	
		Haulage	2376	km-cum	
18	Carriage of stock materials within 10 km radius(Cement or Steel)				
		Unloading	452.94	qtls	
		Haulage	4529.355	qtls-km	
		Unloading	75.31	qtls	
		Haulage	9037.5	qtls-km	
19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)		L.S		

**20. IMPROVEMENT OF FEEDER ROAD FROM HOSPITAL DARA (STNM) TO PALZOR STADIUM JUNCTION
IN GANGTOK.**

Length : 0.962 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	6734.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	1154.40	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	6734.00	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	6734.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	0.27	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	0.04	m2		

8	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1827.80	m2		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35.	20.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	500.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	90.000	m3		
13	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	6	Each		
	60 cm equilateral triangle	6	Each		
	60 cm circular	6	Each		
14	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	20.00	Sqm		

15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		150.00	Sqm		
16	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings).		300.00	Mtrs		
17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	133.326	cum		
		Haulage	14719.19	km-cum		
		Unloading	21.3828	cum		
		Haulage	2822.5296	km-cum		
		Unloading	431.5120	cum		
		Haulage	124275.46	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
18	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	1047.93	qtls		
		Haulage	10479.349	qtls-km		
		Unloading	420.88	qtls		
		Haulage	50505	qtls-km		
19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 %.			L.S		

21. IMPROVEMENT OF FEEDER ROAD FROM SNT BUS STAND TO PALZOR NAMGYAL GIRLS SCHOOL AND SNT WORKSHOP IN GANGTOK.

Length : 0.680 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	4760.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	816.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	4760.00	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	4760.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				

6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	275.40	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	27.54	m2		
8	Providing and laying 60 mm thick factory-made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1257.80	m2		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	20.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	174.000	m3		

13	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	3	Each		
	60 cm equilateral triangle	3	Each		
	60 cm circular	3	Each		
14	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	20.00	Sqm		
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	90.00	Sqm		
16	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	300.00	Mtrs		

17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	187.033	cum		
	Haulage	20648.421	km-cum		
	Unloading	12.8297	cum		
	Haulage	1693.5178	km-cum		
	Unloading	398.3264	cum		
	Haulage	114718	km-cum		
	Unloading	39.6	cum		
	Haulage	2376	km-cum		
18	Carriage of stock materials within 10 km radius(Cement or Steel).				
	Unloading	3060.20	qtls		
	Haulage	30601.993	qtls-km		
	Unloading	297.50	qtls		
	Haulage	35700	qtls-km		
19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 %.		L.S		

**22. IMPROVEMENT OF FEEDER ROAD FROM HIDDEN FOREST HOTEL TO COOPERATIVE
(SICHEY) IN GANGTOK.**

Length : 0.225 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	62.370	m3		
2	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	8.910	m3		
3	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	4.950	m3		
4	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	124.959	m3		
5	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	90.00	sqm		
6	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	1575.00	sqm		
7	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	270.00	sqm		

8	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401)	61.250	m3		
9	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	36.750	m3		
10	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	490.000	m2		
11	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	1575.00	m2		
12	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	1575.00	m2		
13	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever	1	job		
	(To be paid as per actual measurement)				
14	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	91.13	m2		
15	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
16	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	7.00	nos		

17	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 vim with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	225.00	m		
18	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	40.500	m3		
19	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
20	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	20.00	Sqm		
21	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	67.50	Sqm		
22	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	90.00	Mtrs		
23	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum). SOR 2012 , Item 25.5				
	Unloading	81.883	cum		
	Haulage	9039.8877	km-cum		
	Unloading	171.9212	cum		

		Haulage	22693.602	km-cum		
		Unloading	191.1541	cum		
		Haulage	55052.375	km-cum		
		Unloading	39.6	cum		
			2376	km-cum		
24	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	824.29	qtls		
		Haulage	8242.8696	qtls-km		
		Unloading	101.38	qtls		
		Haulage	12165.3	qtls-km		
25	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L.S		

23. IMPROVEMENT OF FEEDER ROAD FROM MG.MARG TO TIBET ROAD TO KAZI ROAD IN GANGTOK.

Length : 0.241 KM

Sl.no	Particlars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead upto 1000 metres.)	1205.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement	289.20	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical	1205.000	m2		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	1205.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats togive an even and smooth shade including clearing thesurface complete on new	97.61	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per directionof Engineer-in-charge (length of finished kerb edging shall be measured for payment).	9.76	m2		

8	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	456.00	m ²		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	100.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	7.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 cm with standard specification over 15 cm stone setting i/c p/l guard stone, complete as per the direction engineer incharge.	240.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	43.200	m ³		
13	Retro- reflectorised Traffic signs (Providing and fixing of retro-reflectorised cautionary, mandatory and informative sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	3	Each		
	60 cm equilateral triangle	3	Each		
	60 cm circular	3	Each		

14	Direction and Place Identification signs upto 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	72.30	Sqm		
16	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 metres high above ground, 2 m centre to centre, complete as per approved drawings)	50.00	Mtrs		
17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	49.805	cum		
	Haulage	5498.498	km-		
	Unloading	10.2637	cum		
	Haulage	1354.814	km-		
	Unloading	101.7051	cum		
	Haulage	29291.07	km-		
	Unloading	39.6	cum		
	Haulage	2376	km-		
18	Carriage of stock materials within 10 km radius(Cement or Steel)				
	Unloading	452.94	qtls		
	Haulage	4529.355	qtls-		
	Unloading	75.31	qtls		
	Haulage	9037.5	qtls-		
19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc wherever necessary, all complete. 7 % (Paid as per measurement)		L.S		

24. IMPROVEMENT OF FEEDER ROAD FROM OLD PALACE GATE TO TATHANGCHEN IN GANGTOK.

Length : 1.100 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	4950.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	108.00	sqm		
3	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete.	50.63	m3		
4	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	30.38	m3		
5	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	405.000	m2		
6	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	4950.000	m2		

7	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	24.30	m3		
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8	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100°C, protruding 1 mm to 4 mm over mastic surface, all.	4950.00	m2		
9	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately).	81.00	m3		
10	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	428.61	m3		
11	Provision for construction of Geo-Textile materials for damaged and sinking zone at take off point including 30.00 m each RME wall, Geocells, Nonwovens Geotextile, BGM and Geogrid all complete	4.000	nos		
12	Installation charges for fitting fixing of RME wall, all complete.	4.00	nos		
13	Installation charges for Geo-Textile materials for damaged and sinking zone at take off point by Geocells, Nonwovens Geotextile, BGM and Geogrid all complete	876.00	M		
14	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
15	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	44.24	m3		
16	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	29.50	m3		
17	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	242.52	m3		

18	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	144.54	m3		
19	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	266.40	m3		
20	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	445.50	m2		
21	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	44.55	m2		
22	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2314.20	m2		
23	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
24	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	30.00	nos		
25	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	200.00	m		
26	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	180.00	m		

27	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	36.000	m3		
28	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	5	Each		
	60 cm equilateral triangle	5	Each		
	60 cm circular	5	Each		
29	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	30.00	Sqm		
30	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	60.00	Sqm		
31	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	1100.00	Mtrs		
32	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	175.461	cum		
	Haulage	19370.865	km-cum		
	Unloading	551.2970	cum		
	Haulage	72771.199	km-cum		
	Unloading	433.3883	cum		
	Haulage	124815.84	km-cum		
	Unloading	39.6	cum		

		Haulage	2376	km-cum		
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33	Carriage of stock materials within 10 km radius(Cement or Steel).				
	Unloading	4855.91	qtls		
	Haulage	48559.112	qtls-km		
	Unloading	329.30	qtls		
	Haulage	39516.12	qtls-km		
34	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 %.		L.S		

25. IMPROVEMENT OF FEEDER ROAD TO YATAYAT BHAWAN IN GANGTOK.

Length : 0.241 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	1687.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	289.20	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	1687.00	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	1687.00	m2		
5	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	81.00	m3		
6	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
7	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	97.61	m2		
8	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		

9	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	10.00	nos		
10	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	60.00	m		
11	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	10.800	m3		
12	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
13	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	20.00	Sqm		
14	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	9.00	Sqm		

15	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		100.00	Mtrs		
16	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	91.002	cum		
		Haulage	10046.572	km-cum		
		Unloading	2.5659	cum		
		Haulage	338.70355	km-cum		
		Unloading	166.3353	cum		
		Haulage	47904.561	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
17	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	758.22	qtls		
		Haulage	7582.1786	qtls-km		
		Unloading	105.44	qtls		
		Haulage	12652.5	qtls-km		
18	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L.S		

26. IMPROVEMENT OF FEEDER ROAD AROUND MINTOGANG COMPLEX IN GANGTOK.

Length : 0.495 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	2722.50	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	594.00	sqm		
4	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	2722.50	sqm		
5	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	2722.50	m2		
6	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
7	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	200.48	m2		

8	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	20.05	m2		
9	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	915.80	m2		
10	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	200.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	36.000	m3		
13	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm.	10.00	nos		

14	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)					
	90 cm equilateral triangle		4	Each		
	60 cm equilateral triangle		4	Each		
	60 cm circular		4	Each		
15	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)		10.00	Sqm		
16	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		148.50	Sqm		
17	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		300.00	Mtrs		
18	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	19.058	cum		
		Haulage	2103.948	km-cum		
		Unloading	141.5700	cum		
		Haulage	40772.16	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		

19	Carriage of stock materials within 10 km radius(Cement or Steel).				
		Unloading	124.59	qtls	
		Haulage	1245.8713	qtls-km	
		Unloading	170.16	qtls	
		Haulage	20418.75	qtls-km	
20	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S	

27. IMPROVEMENT OF FEEDER ROAD FROM N.H. 10 TO COMMERCIAL TAX OFFICE IN GANGTOK.

Length : 0.128 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	537.60	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	153.60	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	537.60	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	537.60	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	51.84	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	5.18	m2		

8	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.				
		231.80	m2		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.				
		200.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.				
		5.00	nos		
11	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
12	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)				
		30.00	Sqm		
13	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)				
		150.00	Mtrs		
14	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	3.763	cum		
	Haulage	415.45728	km-cum		
	Unloading	27.9552	cum		
	Haulage	8051.0976	km-cum		

		Unloading	39.6	cum		
		Haulage	2376	km-cum		
15	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	38.96	qtls		
		Haulage	389.576	qtls-km		
		Unloading	4.57	qtls		
		Haulage	548.352	qtls-km		
16	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S		

28. IMPROVEMENT OF FEEDER ROAD HIGH COURT TO TIBET ROAD IN GANGTOK.

Length : 0.220 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	990.00	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	264.00	sqm		
4	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	990.00	sqm		
5	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	990.00	m2		
6	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
7	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	0.41	m2		

8	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	0.14	m2		
9	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	402.80	m2		
10	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
11	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	10.00	nos		
12	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	90.00	m		
13	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	16.200	m3		

14	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
15	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
16	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	27.00	Sqm		
17	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	150.00	Mtrs		
18	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	22.444	cum		
	Haulage	2477.7999	km-cum		
	Unloading	3.8489	cum		
	Haulage	508.05533	km-cum		
	Unloading	66.1219	cum		
	Haulage	9521.5565	km-cum		
	Unloading	39.6	cum		

		Haulage	2376	km-cum		
19	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	205.63	qtls		
		Haulage	2056.2703	qtls-km		
		Unloading	61.88	qtls		
		Haulage	7425	qtls-km		
20	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S		

29. IMPROVEMENT OF FEEDER PALACE GATE TO BHANU PATH NEAR DUKKI PAN DOKAN IN GANGTOK.

Length : 0.125 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	468.75	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	150.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	468.75	m2		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	468.75	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	50.63	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	5.06	m2		

8	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.		231.80	m2		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.		200.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia		10.00	nos		
11	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		37.50	Sqm		
12	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		150.00	Mtrs		
13	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
	Unloading	3.281	cum			
	Haulage	362.25	km-cum			
	Unloading	24.3750	cum			
	Haulage	7020	km-cum			
	Unloading	39.6	cum			
	Haulage	2376	km-cum			
14	Carriage of stock materials within 10 km radius(Cement or Steel) .					
	Unloading	464.82	qtls			
	Haulage	4648.15	qtls-km			
	Unloading	29.30	qtls			
	Haulage	3515.625	qtls-km			
15	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L.S		

30. IMPROVEMENT OF FEEDER AROUND DEVELOPMENT AREA NEAR SANGRAM BHAWAN IN GANGTOK.

Length : 0.330 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	2310.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	396.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	2310.00	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	2310.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	133.65	m2		
7	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
8	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35.	20.00	nos		

9	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	30.00	m		
10	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	5.400	m3		
11	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		

12	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)		20.00	Sqm		
13	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		9.00	Sqm		
14	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		100.00	Mtrs		
15	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	21.341	cum		
		Haulage	2356.0773	km-cum		
		Unloading	1.2830	cum		
		Haulage	169.35178	km-cum		
		Unloading	125.0006	cum		
		Haulage	36000.184	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
16	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	60.11	qtls		
		Haulage	601.08928	qtls-km		
		Unloading	144.38	qtls		
		Haulage	17325	qtls-km		
17	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S		

31. IMPROVEMENT OF FEEDER FROM CIRCULAR RING ROAD TO BHANU PATH VIA WHITE HALL IN GANGTOK.

Length : 0.330

KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	1386.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	396.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	1386.00	sqm		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	1386.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	0.00	m2		

7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	0.04	m2		
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8	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	630.80	m ²		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35.	10.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	0.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	0.180	m ³		
13	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
14	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	0.30	Sqm		

15	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		150.00	Mtrs		
16	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	9.855	cum		
		Haulage	1087.992	km-cum		
		Unloading	14.1116	cum		
		Haulage	1862.7286	km-cum		
		Unloading	125.7571	cum		
		Haulage	36218.594	km-cum		
		Unloading	39.596812	cum		
		Haulage	2375.8087	km-cum		
17	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	631.28	qtls		
		Haulage	6312.8201	qtls-km		
		Unloading	86.62	qtls		
		Haulage	10394.99	qtls-km		
18	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S		

**32. IMPROVEMENT OF FEEDER ROAD FROM BAN JHAKRI FALLS TO SEWERAGE TREATMENT PLANT,
RANKA IN GANGTOK.**

Length : 2.500 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	15000.00	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	3000.00	sqm		
4	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401)	1875.00	m3		
5	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	1125.00	m3		
6	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	15000.000	m2		
7	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	15000.000	m2		

8	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	370.80	m3		
9	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	15000.00	m2		
10	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses.	405.00	m3		
11	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	261.09	m3		
12	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc. (To be paid as per actual measurement)	1	job		
13	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	56.36	m3		
14	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	37.58	m3		

15	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	266.76	m3		
16	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	144.54	m2		
17	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	266.40	m3		
18	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	1012.50	m2		
19	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	101.25	m2		
20	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1947.50	m2		
21	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
22	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	40.00	nos		

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23	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	2490.00	m		
24	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	36.000	m3		
25	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	60.00	m		
26	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	5	Each		
	60 cm equilateral triangle	5	Each		
	60 cm circular	5	Each		
27	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	30.00	Sqm		

28	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		747.00	Sqm		
29	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		2500.00	Mtrs		
30	Provision for 2.00 m RCC culvert.		1	nos		
31	Provision for 3.00 m RCC culvert.		1	nos		
31	Provision for 1.00 mx1.00 m RCC cross drainage work.		2	nos		
32	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
	Unloading	1074.746	cum			
	Haulage	118651.92	km-cum			
	Unloading	2094.4904	cum			
	Haulage	276472.73	km-cum			
	Unloading	3082.7776	cum			
	Haulage	887839.95	km-cum			
	Unloading	39.60	cum			
	Haulage	2376.00	km-cum			
33	Carriage of stock materials within 10 km radius(Cement or Steel)					
	Unloading	2485.21	qtls			
	Haulage	24852.099	qtls-km			
	Unloading	1294.48	qtls			
	Haulage	155337.12	qtls-km			
34	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L.S		

33. IMPROVEMENT OF FEEDER ROAD FROM (N.H.10) GURUDWAR TO DEFENCE HALL IN GANGTOK.

Length : 0.550 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	2310.00	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	660.00	sqm		
4	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	15.75	m3		
5	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	210.000	m2		
6	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	2310.000	m2		

7	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	14.11	m3		
8	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	1495.20	m2		
9	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
10	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
11	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	7.00	nos		
12	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	100.00	m		

13	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	5.400	m3		
14	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		
15	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
16	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	30.00	Sqm		
17	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	100.00	Mtrs		
18	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				

		Unloading	19.986	cum		
		Haulage	2206.4261	km-cum		
		Unloading	25.0666	cum		
		Haulage	3308.7859	km-cum		
		Unloading	102.6426	cum		
		Haulage	29561.08	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
23	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	76.23	qtls		
		Haulage	762.2976	qtls-km		
		Unloading	99.87	qtls		
		Haulage	11984.717	qtls-km		
24	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S		

34. IMPROVEMENT OF FEEDER AROUND FOREST COLONY COMPLEX, BALWAKHANI IN GANGTOK.

Length : 1.700

KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	11900	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	2040	sqm		
4	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	11900	sqm		
5	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	11900	sqm		
6	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
7	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	0.405	m2		

8	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	0.04	m2		
9	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer in charge	3230	m2		
10	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200	m		
11	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	10	nos		
12	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	500	m		
13	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size.	90	m3		

14	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)					
	90 cm equilateral triangle		2	Each		
	60 cm equilateral triangle		2	Each		
	60 cm circular		2	Each		
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		150.00	Sqm		
16	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		150.00	Mtrs		
17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	169.488	cum		
		Haulage	18711.475	km-cum		
		Unloading	21.3828	cum		
		Haulage	2822.5296	km-cum		
		Unloading	700.1440	cum		
		Haulage	201641.47	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
18	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	1173.15	qtls		
		Haulage	11731.488	qtls-km		
		Unloading	743.75	qtls		
		Haulage	89250	qtls-km		
19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S		

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**35. IMPROVEMENT OF FEEDER FROM 5TH MILE TURNING TADONG TO MECHINICAL WORKSHOP VIA GASS
GODOWNIN GANGTOK.**

Length : 1.900 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	9500.00	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2)	2280.00	sqm		
4	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	9500.00	sqm		
5	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	9500.00	m2		
6	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever (To be paid as per actual measurement)	1	job		
7	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	0.41	m2		

8	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	0.04	m2		
9	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2540.30	m2		
10	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
11	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm.	10.00	nos		
12	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	500.00	m		
13	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	54.000	m3		

14	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)					
	90 cm equilateral triangle		2	Each		
	60 cm equilateral triangle		2	Each		
	60 cm circular		2	Each		
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		150.00	Sqm		
16	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		500.00	Mtrs		
17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	122.088	cum		
		Haulage	13478.515	km-cum		
		Unloading	122.0880	cum		
		Haulage	13478.515	km-cum		
		Unloading	544.7440	cum		
		Haulage	156886.27	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
18	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	851.18	qtls		
		Haulage	8511.8488	qtls-km		
		Unloading	593.75	qtls		
		Haulage	71250	qtls-km		

19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)		L.S		

36. IMPROVEMENT OF FEEDER ROAD FROM (N.H.10) RAYMOND HOSTEL TO LAMICHANEY GAON IN GANGTOK.

Length : 0.400 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	2500.00	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	600.00	sqm		
4	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	150.00	m3		
5	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	3000.000	m2		
6	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	3000.000	m2		

7	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tones per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for GradingII(19 mm nominal size).	144.00	m3		
8	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100°C, protruding 1 mm to 4 mm over mastic surface, all.	3000.00	m2		
9	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
10	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	162.00	m2		
11	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	16.20	m2		

12	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	676.40	m2		
13	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
14	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	7.00	nos		
15	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	400.00	m		
16	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	72.000	m3		
17	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		

18	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
19	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	120.00	Sqm		
20	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	100.00	Mtrs		
21	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	103.95	m3		
22	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	10.40	m3		
23	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	6.93	m3		
25	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	300.252	cum		
	Haulage	33147.779	km-cum		
	Unloading	223.9420	cum		
	Haulage	29560.343	km-cum		
	Unloading	510.0174	cum		

		Haulage	146885.02	km-cum		
		Unloading	39.6	cum		
			2376	km-cum		
26	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	3298.81	qtls		
		Haulage	32988.07	qtls-km		
		Unloading	283.68	qtls		
		Haulage	34041.6	qtls-km		
27	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L.S		

37. IMPROVEMENT OF FEEDER ROAD FROM 5TH MILE VIP COLONY TO FLOUR MILL IN GANGTOK.

Length : 0.350 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	1575.00	sqm		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	420.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	1575.000	m2		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	1575.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	141.75	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	14.18	m2		

8	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	665.00	m2		
9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm.	7.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	63.000	m3		
13	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral	2	Each		
	60 cm equilateral	2	Each		
	60 cm circular	2	Each		
14	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		

15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		9.00	Sqm		
16	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		200.00	Mtrs		
17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	70.388	cum		
		Haulage	7770.8131	km-cum		
		Unloading	12.8297	cum		
		Haulage	1693.5178	km-cum		
		Unloading	138.3564	cum		
		Haulage	39846.643	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
18	Carriage of stock materials within 10 km radius(Cement or Steel).					
		Unloading	661.72	qtls		
		Haulage	6617.1553	qtls-km		
		Unloading	98.44	qtls		
		Haulage	11812.5	qtls-km		
19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S		

38. IMPROVEMENT OF FEEDER ROAD FROM ENCHEY MONESTRY TO GANESH TOK IN GANGTOK.

Length : 1.000 km

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.000	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	5000.000	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement)	1200.000	sqm		
4	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density.	1000.00	m3		
5	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	750.000	m3		
6	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1:2 (1cement, 1 coarse sand,2 graded stone aggregate of 20mm & down size).	24.000	m3		
7	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low porosity)	5000.000	m2		

8	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	5000.000	m2		
9	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	5000.000	m2		
10	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses	66.600	m3		
11	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	466.971	m3		
12	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1.000	job		
	(To be paid as per actual measurement)				
13	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means).	53.679	m3		
14	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	36.799	m3		

15	Providing and Laying Plum concrete in 1:2:4 c.c. (1cement, 2coarse sand, 4clean hard graded stone chips of 20 mm down nominal gauge) with 50% clean hard stone of sizes not exceeding 15cm including shuttering, compacting and curing complete, as per the direction of Engineer in Charge.	730.040	m3		
16	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	178.200	m3		
17	Supplying, bending and placing in position mild steel (6mm dia.) including straightening, cutting, bending and placing in position including binding wire complete.				
		192.46	qtls		
		21.38	qtls		
18	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state). Foundation, footings, base of column etc. for mass concrete.	678.540	m3		
19	Providing and laying hand packed stone filling with clean hard selected stones, all complete. (Manual means)	363.000	m3		
20	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	40.500	m2		
21	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	1470.600	m2		

22	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.000	m		
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23	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm.	7.000	nos		
24	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	990.000	m		
33	Retro- reflectorized Traffic signs (Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	4.000	Each		
	60 cm equilateral triangle	4.000	Each		
	60 cm circular	4.000	Each		
25	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	20.000	Sqm		

26	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	300.000	Sqm		

27	Type - B, "THRIE" : Metal Beam Crash Barrier (Providing and erecting a "Three" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m center to center, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanized by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 810)		21.000	m		
28	Laying Reinforced Cement Concrete Pipe NP4/prestressed concrete pipe on first class bedding in single row . (Laying Reinforced cement concrete pipe NP4/prestressed concrete pipe for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets)		30.000	m		
29	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
	Unloading	789.118	cum			
	Haulage	87118.578	km-cum			
	Unloading	1996.225	cum			
	Haulage	263501.737	km-cum			
	Unloading	1509.072	cum			
	Haulage	434612.688	km-cum			
	Unloading	39.600	cum			
	Haulage	2376.000	km-cum			
30	Carriage of stock materials within 10 km radius(Cement or Steel)					
	Unloading	4555.563	qtls			
	Haulage	45555.629	qtls-km			
	Unloading	635.300	qtls			
	Haulage	76236.000	qtls-km			
31	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 %			L.S		

39. IMPROVEMENT OF FEEDER ROAD FROM 5th MILE WELFARE OFFICE TURNING TO LUMSEY SCHOOL IN GANGTOK.

Length : 0.310 km

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	1550.00	Cum		
2	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	372.000	sqm		
3	Plant Mix Method (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete.	193.750	m3		
4	Wet Mix Macadam (Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.)	116.250	m3		
5	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1:2 (1cement, 1 coarse sand, 2 graded stone aggregate of 20mm & down size).	12.000	m3		
6	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.)	1550.000	m2		
7	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	1550.000	m2		

8	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 100°C, protruding 1 mm to 4 mm over mastic surface, all.	1550.000	m ²		
9	Dismantling of flexible pavement (Dismantling of flexible pavement and disposal of dismantled materials up to a lead of 1000 meters, stacking serviceable and unserviceable material separately). By manual means A-Bituminous courses .	39.600	m ³		
10	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1.000	job		
	(To be paid as per actual measurement)				
11	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.000	m		
12	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade.	7.000	nos		
13	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	310.000	m		

14	Retro- reflectorized Traffic signs (Providing and fixing of retro reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)					
	90 cm equilateral triangle		1.000	Each		
	60 cm equilateral triangle		1.000	Each		
	60 cm circular		1.000	Each		
15	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)		10.000	Sqm		
16	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		46.500	Sqm		
17	Laying Reinforced Cement Concrete Pipe NP4/prestressed concrete pipe on first class bedding in single row . (Laying Reinforced cement concrete pipe NP4/prestressed concrete pipe for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets)		15.000	m		
18	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	94.872	cum		
		Haulage	10473.871	km-cum		
		Unloading	163.318	cum		
		Haulage	21557.965	km-cum		
		Unloading	163.318	cum		
		Haulage	21557.965	km-cum		
		Unloading	39.600	cum		
		Haulage	2376.000	km-cum		
19	Carriage of stock materials within 10 km radius(Cement or Steel)					

		Unloading	433.917	qtls		
		Haulage	4339.170	qtls-km		
		Unloading	252.575	qtls		
		Haulage	30309.000	qtls-km		
20	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per			L.S		

40. IMPROVEMENT OF FEEDER ROAD FROM ZERO POINT TO NEW SECRETARIAT IN GANGTOK.

Length : 1.600 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	7500.00	sqm		
2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	7500.00	m2		
3	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	7500.00	m2		
4	Provision for extra items under water and liquid mud i/c pumping of water etc.	1	job		
	(To be paid as per actual measurement)				
5	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	648.00	m2		
6	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	64.80	m2		

7	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2850.00	m2		
8	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	60.00	m		
9	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	7.00	nos		
10	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	100.00	m		
11	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	18.000	m3		
12	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informative sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	5	Each		
	60 cm equilateral triangle	5	Each		
	60 cm circular	5	Each		
13	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	40.00	Sqm		

14	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)		480.00	Sqm		
15	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)		600.00	Mtrs		
16	Provision for 3.00 m RCC culvert.		1	nos		
17	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	69.738	cum		
		Haulage	7699.031	km-cum		
		Unloading	4.2766	cum		
		Haulage	564.50592	km-cum		
		Unloading	406.2688	cum		
		Haulage	117005.41	km-cum		
		Unloading	39.6	cum		
		Haulage	2376	km-cum		
18	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	521.75	qtls		
		Haulage	5217.4976	qtls-km		
		Unloading	468.75	qtls		
		Haulage	56250	qtls-km		
19	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L.S		

41. IMPROVEMENT OF FEEDER FROM GAIRI GAON TO ARMY GATE (LIBING) IN GANGTOK.
Length : 0.300 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	1650.00	sqm		
3	Construction of Subgrade and Earthen Shoulders (Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement.	360.00	sqm		
4	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	1650.00	sqm		
5	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all complete.	1650.00	m2		
6	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				

10	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
11	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia.	3.00	nos		
12	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	100.00	m		
13	Providing box drain of 30cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge.	100.000	m		
14	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	18.000	m ³		
15	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	2	Each		
	60 cm equilateral triangle	2	Each		
	60 cm circular	2	Each		

16	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	60.00	Sqm		
17	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings).	100.00	Mtrs		
18	Laying Reinforced Cement Concrete Pipe NP4/prestressed concrete pipe on first class bedding in single row . (Laying Reinforced cement concrete pipe NP4/prestressed concrete pipe for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets).	7.50	Mtrs		
19	Provision for 2.00 m RCC culvert.	1	nos		
20	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	30.227	cum		
	Haulage	3337.0564	km-cum		
	Unloading	4.2766	cum		
	Haulage	564.50592	km-cum		
	Unloading	109.4040	cum		
	Haulage	31508.352	km-cum		
	Unloading	39.6	cum		
	Haulage	2376	km-cum		
21	Carriage of stock materials within 10 km radius(Cement or Steel).				
	Unloading	193.03	qtls		
	Haulage	1930.288	qtls-km		
	Unloading	103.13	qtls		
	Haulage	12375	qtls-km		
22	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)		L.S		

42. IMPROVEMENT OF FEEDER ROAD IN AND AROUND V.I.P COMPLEX IN GANGTOK.

Length : 2.466

KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Excavation in soil in hilly area by mechanical means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 1000 meters.	0.00	Cum		
2	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	11097.00	sqm		
3	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	11097.00	m2		
4	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	11097.00	m2		
5	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
6	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	998.73	m2		
7	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	99.87	m2		
8	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2804.40	m2		

9	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
10	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	50.00	nos		
11	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	500.00	m		
12	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	90.000	m3		
13	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	20	Each		
	60 cm equilateral triangle	20	Each		
	60 cm circular	20	Each		
14	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	150.00	Sqm		

16	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)			1500.00	Mtrs		
	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).						
		Unloading	163.867	cum			
		Haulage	18090.917	km-cum			
		Unloading	21.3828	cum			
		Haulage	2822.5296	km-cum			
		Unloading	658.3880	cum			
		Haulage	189615.74	km-cum			
		Unloading	39.60	cum			
		Haulage	2376.00	km-cum			
17	Carriage of stock materials within 10 km radius(Cement or Steel)						
		Unloading	1280.57	qtls			
		Haulage	12805.693	qtls-km			
		Unloading	693.56	qtls			
		Haulage	83227.50	qtls-km			
18	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per						

43. IMPROVEMENT OF FEEDER ROAD IN AND AROUND RAJ BHAWAN COMPLEX IN GANGTOK.

Length : 2.085

KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	9382.50	sqm		
2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	9382.50	sqm		
3	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	9382.50	m2		
4	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
5	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new	844.43	m2		
6	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	84.44	m2		
7	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2080.50	m2		

8	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
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9	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	7.00	nos		
10	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	300.00	m		
11	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	375.300	m3		
12	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	10	Each		
	60 cm equilateral triangle	10	Each		
	60 cm circular	10	Each		
13	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
14	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	90.00	Sqm		

15	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	2085.00	Mtrs		
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16	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	390.495	cum		
	Haulage	43110.681	km-cum		
	Unloading	12.8297	cum		
	Haulage	1693.5178	km-cum		
	Unloading	809.8014	cum		
	Haulage	233222.8	km-cum		
	Unloading	39.60	cum		
	Haulage	2376.00	km-cum		
17	Carriage of stock materials within 10 km radius(Cement or Steel)				
	Unloading	3500.71	qtls		
	Haulage	35007.053	qtls-km		
	Unloading	586.41	qtls		
	Haulage	70368.75	qtls-km		
18	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)				

44.IMPROVEMENT ROAD AND RE-ALIGNMENT OF HILL SIDE DRAIN AT BARPIPAL TO SICHEY, GANGTOK

Length 0.18 km

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Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Dismantling of existing drainage by manual means and throwing of the dismantled material comprising of cement concrete , masonry	93.69	m2		
2	Excavation in soil in hilly area by manual means including cutting and trimming of side slopes and disposing of excavated earth with all lifts and lead up to 50 meters.	47.00	m3		
3	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	720.00	sqm		
4	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate shown in 500-1 using mechanical means.) (Low	675.00	sqm		
5	Tack coat (Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at required rate on the prepared bituminous/granular surface cleaned with mechanical broom.	675.00	sqm		
6	Seal Coat (Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A and B seal coats.	675.00	sqm		
7	Open - Graded Premix Surfacing (Providing, laying and rolling of open graded premix surfacing of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen or cut- back or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 ton capacity, finished to required level and grades.)	675.00	sqm		
8	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
9	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	50.00	nos		
3	Providing and laying hand packed stone soling in buildings works with clean hard selected stones, all complete. (Manual means)	62.46	m3		
4	Providing and Laying in position cement concrete of grade 1:3:6 including compacting curing. All complete	62.46	m ³		
5	Providing and Laying in position cement concrete of grade 1:2:4 including compacting curing etc. all complete.	229.02	m ³		

6	Supplying, fabricating, fitting and fixing steel tubular trusses including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shape washer etc. as per the standard specification and design and direction of engineer in charge.		14504.6	kg		
7	Filling with available excavated earth in trenches, plinth and side of foundation in building works with layers not exceeding 20cm in depth including consolidation of each layer by		15.345	m ³		
8	Provision for shifting of drinking water supply pipe line including re- fitting ,fixing of pipeline etc. complete (to be paid as per actual measurement)		1job			
9	Providing fitting fixing of GI pipes of medium class excluding trenching, re-filling, compacting and the cost of fittings .(15mm dia pipe)		300.00	m		
10	Carriage of stock materials within 10km radius					
		unlo	146.57	Qtl		
		Haul	146.57	qtl-km		
		Unlo	2.8215	Qtl		
		Haul	338.58	qtl-km		
11	carriage of non-stock material (stone, boulder/stone aggregates/sand/kanker/moorum)					
		Unlo	132.42	m ³		
		Haul	12182.55	km-m3		
		unlo	4.05	m ³		
		Halul	372.60	km-m3		
		unlo	18.23	m ³		
		Haul	2004.75	km-m3		
		Unlo	262.54	m ³		
		Haul	31504.54	km-m3		
		Unlo	66.13	m ³		
		Haul	7274.77	km-m3		
12	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L.S		

45.IMPROVEMENT OF FEEDER ROAD AROUND ALL INDIA RADIO COMPLEX IN GANGTOK.

Length : 2.402 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	12010.00	sqm		
2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	12010.00	sqm		
3	Mastic Asphalt (Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500- 29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine-grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all.	12010.00	m2		
4	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
5	Providing and painting with ready mixed paint of approved quality and shade with two or more coats to give an even and smooth shade including clearing the surface complete on new surface.	972.81	m2		
6	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in- charge).	97.82	m2		
7	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	2682.80	m2		
8	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		

9	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover 600 mm dia of grade EHD - 35	40.00	nos		
10	Providing box drain of 60cmx45cm of internal dimension with 1:2:4 mix plum concrete (40 mm down) in side wall thickness of 23 cm (hillside) and 30 cm (road side) and 1:3:6 mix (20mm and down) base concrete of thickness of 15 mm with standard specification over 15 cm stone soling i/c p/l guard stone, complete as per the direction engineer in charge,	600.00	m		
11	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size).	108.00	m ³		
12	Retro- reflectorized Traffic signs (Providing and fixing of retro-reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
	90 cm equilateral triangle	10	Each		
	60 cm equilateral triangle	10	Each		
	60 cm circular	10	Each		
13	Direction and Place Identification signs up to 0.9 sqm size board. (Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing)	10.00	Sqm		
14	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.)	180.00	Sqm		

15	Tubular Steel Railing on Medium Weight steel channel (ISMC series) 100 mm x 50 mm (Providing, fixing and erecting 50 mm dia steel pipe railing in 3 rows duly painted on medium weight steel channels (ISMC series) 100 mm x 50 mm, 1.2 meters high above ground, 2 m center to center, complete as per approved drawings)	2402.0	Mtrs		
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16	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).				
	Unloading	187.496	cum		
	Haulage	20699.514	km-cum		
	Unloading	25.6594	cum		
	Haulage	3387.0355	km-cum		
	Unloading	722.1328	cum		
	Haulage	207974.25	km-cum		
	Unloading	39.60	cum		
	Haulage	2376.00	km-cum		
17	Carriage of stock materials within 10 km radius(Cement or Steel)				
	Unloading	1525.33	qtls		
	Haulage	15253.316	qtls-km		
	Unloading	750.63	qtls		
	Haulage	90075.00	qtls-km		
18	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)		L.S		

46. IMPROVEMENT OF FEEDER FROM DARAGAON TO GREENDALE SCHOOL IN GANGTOK

Length : 0.268 KM

Sl.no	Particulars	Quantity	Unit	Rate	Amount
1	Scarifying existing bituminous surface to a depth of 50 mm by mechanical means (Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material with in all lifts and lead up to 1000 meters.)	804.00	sqm		
2	Earth work in excavation by mechanical means (Hydraulic Excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	402.00	cum		
3	Stone Soiling for road works Providing & laying hand packed stone soling of specified thickness with clean hard selected stones including hammer dressing of stone for laying as per required level and camber including packing with broken stones obtained from hammer dressing to fill the voids to give uniform surface as directed by the Engineer-in-Charge	100.50	cum		
4	Providing and Laying in position cement concrete of specified grade including compacting curing etc. all complete. 1:3:6 mix. (1 cement, 3 coarse sand, 6 stone aggregate of 20mm & down size)	134.00	cum		
5	Providing & Laying in position cement concrete of specified grade including compacting curing etc. all complete with Recron 3S of fiber length 6 or 12 mm (125 gm of recron 3S per a bag of cement) 1:1.5:3 (1cement, 1.5 coarse sand, 3 graded stone aggregate of 20mm & down size) as per the direction of Engineer in Charge.				
		11.20	cum		
		385.92	cum		
6	Provision for extra items under water and liquid mud i/c pumping of water and providing grittings over drain wherever necessary, etc.	1	job		
	(To be paid as per actual measurement)				
7	Providing, fitting and fixing soil waste and vent pipes including testing etc. complete. 100 mm dia. PRINCE / SUPREME or equivalent soil pipe.	200.00	m		
8	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) : Circular manhole 140 cm dia with circular cover	27.00	cum		

9	Providing and Laying in position reinforced cement concrete of specified grade including compacting curing etc. all complete. 1:1.5:3 (1cement, 1.5 coarse sand,3 graded stone aggregate of 20mm & down size).	186.06	m3		
10	Supply, bending and placing in position steel reinforcement in all				

		tor steel	200.94	qtl		
		mild steel	22.33	qtl		
11	Providing, fixing & removing form work for casting R.C.C items as indicated below: with imported timber from outside the state) Floor slab, roof slab, landing, balcony and		113.36	sqm		
12	Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and		80.40	Sqm		
13	Carriage of non-stock materials(Stone Boulder/Stone aggregates/Sand/Kanker/Moorum).					
		Unloading	549.163	cum		
		Haulage	60627.5952	km-		
		Unloading	47.2350	cum		
		Haulage	6235.02	km-		
		Unloading	612.1430	cum		
		Haulage	176297.184	km-		
14	Carriage of stock materials within 10 km radius(Cement or Steel)					
		Unloading	4694.11	qtls		
		Haulage	46941.12	km-		
15	Street light cum reflector @ 30 m interval, RCC Pillar i/c lamp post etc. wherever necessary, all complete. 7 % (Paid as per measurement)			L.S		

	SUB-TOTAL		Rs
	GST	12%	Rs
	Labour Cess	1%	Rs
	Total Bid Price	in figures	Rs
	Total Bid Price Rupees	in words	Rs

Measurement & Payment Criteria

The measurement and payment criteria shall generally be as under:

Measurement of work done

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

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

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

- It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material on which it relates not shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

Payment on Intermediate Certificate to be regarded as Advances

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

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

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

Section V -Eligible Countries

This bid is eligible only to bidders from India.

Section VI - Fraud and Corruption

1. Purpose

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

2. Requirements

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

2.2 To this end, the GSCDL:

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

PART 2 – Works' Requirements

Section VII - Works' Requirements

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Report, Specifications, Structural Design, Tests

Broad Report

NAME OF WORK:	Improvement of Selected Feeder Roads in and around Gangtok.
BRIEF:	The estimate has been prepared to meet up the cost for the work “Improvement of Selected Feeder Roads in and around Gangtok”.
HISTORY:	<p>Gangtok city was selected in Round 3 of the Smart Cities All India Challenge on 28th June 2017 by the Ministry of Urban Development, Government of India. The one of the important components of Smart City Mission is to provide Efficient Urban Mobility and Public Transport. Accordingly, Gangtok Smart City Development Limited (GSCDL) has proposed to improve various Feeder Roads in Gangtok. The Feeder Roads are the main component of road network which connects the mobility of vehicles and public to the center of the Gangtok city. Gangtok is the administrative as well as the commercial capital of Sikkim and lot of activities take place on a daily basis. Moreover, the beatification of M.G Marg and New Market has converted it into a tourist destination and lots of tourists assemble to MG Marg. These roads are regularly used and are the lifelines of Gangtok city. However, these roads require improvement and up-gradation so that the general public feels convenient, comfortable and safer to ply on these roads. Most of the hotels are located outside the main city and the tourists/visitors are bound to use the Feeder Roads and they shall have better image of the city if these roads are in good condition. The Gangtok Smart City Development Limited (GSCDL) has proposed to repair the pavement layers, provide mastic asphalt layer, improve the drains, providing drain covers, railings, strengthening of sinking roads with geo-textile materials etc.</p>
SCOPE OF WORK:	<p>The present configuration of the feeder roads within the urban areas has no distinct geometrics confirming to any standard specifications as the planning of the urban roads within the periphery lacked initial planning. Owing to the hilly terrain and restricted space due to the construction of the buildings along both sides of the road, restrictions are there for carrying out the widening of the roads. The scope of major widening program is very much limited and very costly affair due to high compensation cost. Under this restricted situation, the only possible option is to bring about optimum up-scaling of the existing roadway by widening the intersection wherever possible without much affecting the existing road and causing minimum disturbances to the habitation. The Urban roads apart from catering the movement of the public from the other part of the Districts have also to cater the daily movement of the public from the 16 municipal wards under the Gangtok Municipal Corporation. Due to these, heavy traffic flow can be observed on the Urban roads on day to day basis. The Gangtok city population as per the 2011 census is 100286. Therefore, the population of Gangtok is expected to be Rs. 1,89,124.00 inclusive of floating population. The Urban roads have to face the heavy traffic due to working employees, the school going children, the people visiting the offices at Gangtok from the other part of the State, the day to day business activities, the domestic as well as the international tourist during the peak tourist season. The heavy traffic volume on the urban roads in and around Gangtok causes heavy impact in the form of wear and tear on the surface as well as on the pavement crust on these roads. Also, the available rainfall data shows that the mean annual rainfall of maximum to 3494mm is recorded at Gangtok. Since, the wearing surface of these roads have to face the heavy traffic flow and are susceptible to heavy monsoon rains, these roads are to be provided with periodic maintenance to keep these roads alive for catering to the heavy traffic and also to improve/maintain</p>

the aesthetic looks of the city. It is also pertinent to mention that much towards the improvement on the geometrics of these roads, it's widening due to built up areas along and on the both sides of the roads poses a great restrictions. Hence, periodic maintenance of these roads has become mandatory.

In view of the existing condition of the urban roads, emphasis has been given due consideration on the nature of the treatment to be given for its restoration. Based and on identifying the type of defects, it has been proposed to provide the following scope of work/ methodology under this proposal:-

1. Granular Sub Base- This layer has been proposed where ever the pavement layers have been completely damaged or on the roads where it is to be upgraded.
2. Wet Mix Macadam;- These layer has been proposed on the roads wherever the pavement has been damaged and on those roads which needs to be upgraded .Since, the urban roads are always occupied with the traffic movement so it will be easier to lay the mix as it is to be directly fed from the plant. Hence, no disturbances shall be caused during the traffic movement.
3. Dense Bituminous Macadam:-This layer has been proposed to be laid over Wet Mix Macadam on those roads where the damaged pavement layers are to be restored.
4. Mastic Asphalt:-The top layer of the pavement shall be laid with mastic asphalt as to increase the strength, longevity and durability as these roads are subjected to heavy traffic volume. The layer of mastic asphalt will be a dense mixture comprising of coarse aggregate and/or sand/or fine aggregates and /or filler material with bitumen consisting of admixture designed for a low void content as to make the surface impermeable to the surface water durable.
5. It has been proposed to construct 30% of the damaged box drain of varying in size in between 45cmx60cm and 30cmx45cm with iron grating where ever required.
6. Road Marking with signage: - It has been proposed to provide signage and road markings at appropriate places.
7. It has also been proposed to provide 1200mm diameter RCC pipe for crossing of electric cables where ever required.
8. Railings and crash barrier are also proposed to be constructed at narrow road width.
9. Provision for kerb stones and interlocking cc blocks are also proposed in the estimate.
10. There is a provision for shifting of soil pipes and manhole covers are also made in this estimate.
11. Plum concrete in 1:2:4 mix and geo-textile material are also proposed for strengthening and protecting the roads at the sliding zones.
12. The provision of RCC culvert is provided in the estimate.
13. Street Lighting is also proposed at the feeder roads.

DESIGN: SPWD Specifications and IRC guidelines.

SCHEDULE OF RATES: SPWD SOR 2020. Tender is based on item rate.

LAND/SPACE: Shall be handed over by Urban Development Department, Govt. of Sikkim

Work Specifications

1. The works shall **generally** be executed as per the approved specifications of the Sikkim PWD or as per the direction of the Project Manager. Wherever codes do not apply, the work shall be taken up as per good engineering practices and to the satisfaction of the Project Manager.
2. The work requirements shall be as follows but not limited to: -
 - a. Hill Cutting & Earthwork Excavation of foundation trenches including throwing of spoils to a designated dumping yard.
 - b. Protective Works: - Consist of: -
 - Plum Concrete of 1:2:4 cement concrete with 50% clean hard stone of sizes including shuttering, compacting and curing.
 - Back Filling works as per direction of Engineer-in-charge.
 - c. Pavement Works: - The total length of the proposed road is 32.56 kilometers. The scope of work consists of: -
 - Scarifying existing bituminous surface to a depth of 50mm by mechanical means and disposal of scarified materials with all lifts and lead up to 1000 meters.
 - Construction of Sub grade and earthen shoulders.
 - Construction of Granular sub-base by providing close graded material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401.
 - Wet Mix Macadam- Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller.
 - Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) for Grading II(19 mm nominal size).
 - Applying a layer of prime coat and tack coat.
 - Mastic Asphalt- Providing and laying 25mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated fine –grained hard stone chipping of 13.2 mm nominal size at the rate of 0.005 cum per 10sqm and at an approximate spacing of 10cm center to center in both directions, pressed into surface when the temperature of surface not less than 1000 c ,protruding 1mm to 4mm over mastic surface.
 - Utilizing Geo-textile materials for damaged and sinking zone at takeoff point by using Geocells, Nonwoven Geotextile and Geogrid.
 - Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).

- Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing
 - Providing and erecting direction and place identification retro-reflectorized sign as per IRC:67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.
 - Road Marking with Hot Applied Thermoplastic Compound with Reflectorizing Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes.
 - Open Graded Premixed Surfacing of 20mm thickness as per the direction of engineer-in-charge.
- d. Construction of Culvert (3m,2m & 1m span) and Drainage: - The scope of works includes: -
- i. Abutment, Dirt wall and Wing wall of Plum cement concrete of 1:2:4 mix.
 - ii. Deck slab and Railing of M25 Grade.
 - iii. Providing box drain of 30 cm (ht) x 45 cm(width) and 60 cm (ht) x 45 cm(width) as per the direction of Engineer-in-charge.
3. Subject to availability of space, the contractor would provide a site office along with the furniture, electricity, electrical fittings, drinking water facility, toilet along with office stationeries etc. for the use of departmental field officers/staff deputed for the inspection and supervision of the work as directed by the Engineer in Charge from the date of commencement till the date of completion of the work, The cost of these facilities shall be inclusive in Bid value offered / accepted. No extra claim shall be admissible for these facilities.
 4. Collection of materials on the road sides should be so planned that it should commensurate with the physical progress of the works. It must be ensured that the contractor should not stack the construction materials at private land holdings and must not cause any damages to the public properties.
 5. No work beyond the scope of sanctioned estimate leading either to increase in the scope of the work or change in the specifications should be undertaken without obtaining prior written approval of the Chief Executive Officer.
 6. The following road safety materials must be used during the time of execution/diversion of traffic.
 - i) Traffic cone (385mmx385mm base) x722mm.
 - ii) Safety jackets for labours/officers.
 - iii) Safety helmets for labours/officers.
 - iv) Safety reflective gloves.
 - v) Pollution masks for labours& engineers.
 - vi) Hand held search lights.
 - vii) LED batons.
 - viii) First Aid
 7. The display boards on the developmental activities of the work shall be made as per the guidelines issued by the GSCDL.
 8. Video and Still Photography of the stretch to be improved / renewed before and after execution of the work should be invariably done and records submitted to the Project Manager when asked upon to do so.

9. All taxes & Levies, cess etc. shall be deducted as per the Govt. Rules and as amended by the Government from time to time.
10. The Work value, scope and quantum of work are subject to change, the contractor shall execute the work as per the directives of GSCDL. No claim on this account shall be entertained whatsoever. If any extra claim is made, it shall be as per the agreement rates.
11. The contractor should engage a Graduate/Diploma Civil Engineer (s) at the project site during the period of execution of work as prescribed in the Bidding Document.
12. Avoidable damages due to negligence of the contractor shall be at his own risk and cost. The GSCDL shall not be liable for payment of such damages (if any), including accidents to labourer/s at site.
13. The contractor shall ensure the safety of the road reserve area and beyond.
14. The contractors are required to register themselves under Goods and Service Tax rules and obtain the GST Number before the settlement of bill, or they must be a registered Companies/Firms registered under the Companies act, 1956, having valid Pan card and Tan. The Contractors are also required to submit PAN No as per provision of Indian Income Tax Act, wherever applicable.
15. The recoveries of Income Tax, Goods and Service Tax and Royalties on Forest produces shall be as per rates notified by the Government from time to time and applicable on the date of payment.
16. In case the man powers employed by the contractor are from outside the State or neighboring countries, it shall be the responsibility of the contractor to get them registered with the Labour Department, Government of Sikkim as per the relevant Labour Laws.
17. It is expected that the bidder to have inspected the site before submitting his bid. There may be possible site difficulties for which the bidder should have their own correct assessment before submitting the bid.

Tests

The tests indicated below are for general description; only those tests for the work/activities/items actually required to be executed for this Project needs to be done. The quality of material should be as follows:

A. Cement

Cement should be of Grade 43 OPC or higher

B. Concrete

- Compressive Strength Test on cement concrete as per IS 456:2000 should be performed as per the direction of Engineer-in-Charge
- Mix Design of all grades of concrete used at the site.

C. Aggregate should be tested as per IS 383:1970 for the following:

1. Gradation Test
2. Water Absorption Test
3. Elongation & Flakiness Index
4. Aggregate Crushing Strength Test
5. Bulk Density

D. Test on sand as per IS 383:1970 should be done for the following:

1. Fineness Modulus
2. Silt Content

E. Steel should be of grade Fe 415 TMT bar or above and should be tested as IS 816: 1969 for TOR steel and IS 1161: 1998 for Mild Steel

1. Tensile strength test

F. Tubular Truss testing to be done as per IS 875: 1987 (SP 30)

1. Fatigue Test
2. Truss Load Test

G. Bitumen should be tested as per IS:1202-1978

1. Specific Gravity Test

H. Bitumen should be tested as per IS:1203-1978

1. Penetration Test

I. Bitumen should be tested as per IS:1205-1978

1. Softening Point Test

J. Bitumen should be tested as per IS:1206-1978

1. Viscosity Test

K. Bitumen should be tested as per IS:1208-1978

1. Ductility Test

L. Bitumen should be tested as per IS:1209-1978

1. Flash and Fire Point test

M. Bitumen should be tested as per IS:1210-1978

1. Float Test

2. The record of **quality control test** carried out in conformity with the technical specification and authenticated by the site engineer shall be submitted to the delegated engineer of the Project manager. The delegated engineer will not forward any bill without these test records to the Chief Technical Officer for Payment.
3. The contractor after receiving the letter of acceptance shall furnish 3(three) Xerox copies of the contract agreement including the qualification criteria and other related papers forming the contract, as directed by the GSCDL.
4. All test i/c concrete must be carried from Labs authorized by the Project Manager.
5. The sample from which the testing has to be conducted shall be decided by the Chief Technical Officer, Gangtok Smart City Development Limited. The contractor shall bear all expenses for all test carried out in conformity with the Specification and requirements.

SITE DIFFCULTY

The worksite is located at the center of Gangtok city where there is heavy movement of people and vehicles, further there are many buildings near the feeder roads, wherein the work plan must be designed in such a way that it causes minimum inconveniences to the public residing in the area and hence sufficient measures must be adopted in this regard. Also, the some of the feeder roads are relatively narrow and the Contractor must ensure that all materials reach the site with minimum interference to the public residing in the area due to the movement of heavy vehicles. The bidder must inspect the site and foresee all such difficulties before submitting his bid.

Key Personnel

Contractor's Representative and Key Personnel

Item No.	Position/specialization	Relevant academic qualifications	Minimum years of relevant work experience	Nos.
1	Civil Engineer	Diploma /Degree in Civil Engineering	Two years working in similar work environments	2
2	Supervisor	-	Two years working in similar work environments	4

PART 3 – Conditions of Contract and Contract Forms

Section VIII - General Conditions of Contract

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

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General Conditions of Contract

A. General

1. Definitions

Boldface type is used to identify defined terms.

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

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

2. Interpretation

- 2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.
- 2.2 If sectional completion is **specified in the PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works

- (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
- (a) Agreement,
 - (b) Letter of Acceptance,
 - (c) Contractor's Bid,
 - (d) Particular Conditions of Contract,
 - (e) General Conditions of Contract, including Appendices,
 - (f) Specifications,
 - (g) Drawings,
 - (h) Bill of Quantities, and
 - (i) Any other document **listed in the PCC** as forming part of the Contract.
- 3. Language and Law**
- 3.1 The language of the Contract and the law governing the Contract are **stated in the PCC**.
- 3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when
- (a) as a matter of law or official regulations, the GSCDL's country prohibits commercial relations with that country; or
 - (b) deleted
- 4. Project Manager's Decisions**
- 4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
- 5. Delegation**
- 5.1 Unless otherwise **specified in the PCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.
- 6. Communications**
- 6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.
- 7. Subcontracting**
- 7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations. The Contractor shall require that its Subcontractors execute the Works in accordance with the Contract, including complying with the relevant ES requirements and the obligations set out in Sub-Clause 28.1.
- 8. Other Contractors**
- 8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the PCC**. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.
- 8.2 The Contractor shall also, as stated in the Specifications or as instructed by the Project Manager, cooperate with and allow appropriate opportunities for the Employer's or any other personnel, notified to the Contractor by the Employer or Project Manager, to conduct any environmental and social assessment.
- 9. Personnel and Equipment**
- 9.1 The Contractor shall employ the Key Personnel and use the Equipment identified in its Bid, to carry out the Works or other personnel and Equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and Equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.
- 9.2 The Project Manager may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Key Personnel (if any), who:
- (a) persists in any misconduct or lack of care;
 - (b) carries out duties incompetently or negligently;
 - (c) fails to comply with any provision of the Contract;
 - (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment;
 - (e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works;
 - (f) has been recruited from the Employer's Personnel;

- (g) undertakes behavior which breaches the Code of Conduct for Contractor's Personnel (ES).

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

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

9.4 Labor

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

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

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

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

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

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

- 9.4.3 Deleted

- 9.4.4 Deleted

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

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

- the Contractor's Personnel. The Contractor shall also provide similar facilities for the Employer's Personnel if stated in the Specifications.
- 9.4.7 The Contractor shall, in all dealings with the Contractor's Personnel, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labor. The Contractor shall provide the Contractor's Personnel annual holiday and sick, maternity and family leave, as required by applicable laws or as stated in the Specifications.
- 9.4.8 Supply of Foodstuffs. The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.
- 9.4.9 Supply of Water. The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.
- 9.4.10 Measures against Insect and Pest Nuisance. The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.
- 9.4.11 Alcoholic Liquor or Drugs. The Contractor shall not, otherwise than in accordance with the laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor's Personnel.
- 9.4.12 Arms and Ammunition. The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.
- 9.4.13 Funeral Arrangements. The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.
- 9.4.14 Forced Labor. The Contractor, including its Subcontractors, shall not employ or engage forced labor. Forced labor consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements.
- No persons shall be employed or engaged who have been subject to trafficking. Trafficking in persons is defined as the recruitment, transportation, transfer, harboring or receipt of persons by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of power, or of a position of vulnerability, or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purposes of exploitation.
- 9.4.15 Child Labor. The Contractor, including its Subcontractors, shall not employ or engage a child under the age of 18 unless the national law specifies a higher age (the minimum age). The Contractor, including its Subcontractors, shall not employ or engage a child between the minimum age and the age of 18 in a manner that is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.
- The Contractor including its Subcontractors, shall only employ or engage children between the minimum age and the age of 18 after an appropriate risk assessment has been conducted by the Contractor with the Project Manager's approval. The Contractor shall be subject to regular monitoring by the Project Manager that includes monitoring of health, working conditions and hours of work.
- Work considered hazardous for children is work that, by its nature or the circumstances in which it is carried out, is likely to jeopardize the health, safety, or morals of children. Such work activities prohibited for children include work:
- (a) with exposure to physical, psychological or sexual abuse;
 - (b) underground, underwater, working at heights or in confined spaces;
 - (c) with dangerous machinery, equipment or tools, or involving handling or

- (d) transport of heavy loads;
 - (e) in unhealthy environments exposing children to hazardous substances, agents, or processes, or to temperatures, noise or vibration damaging to health; or
 - (f) under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.
- 9.4.16 **Employment Records of Workers.** The Contractor shall keep complete and accurate records of the employment of labor at the Site. The records shall include the names, ages, genders, hours worked, and wages paid to all workers.
- 9.4.17 **Workers' Organizations.** Where the relevant labor laws recognize workers' rights to form and to join workers' organizations of their choosing and to bargain collectively without interference, the Contractor shall comply with such laws. In such circumstances, the role of legally established workers' organizations and legitimate workers' representatives will be respected, and they will be provided with information needed for meaningful negotiation in a timely manner. Where the relevant labor laws substantially restrict workers' organizations, the Contractor shall enable alternative means for the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. The Contractor shall not seek to influence or control these alternative means. The Contractor shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organizations and collective bargaining or alternative mechanisms. Workers' organizations are expected to fairly represent the workers in the workforce.
- 9.4.18 **Non-Discrimination and Equal Opportunity.** The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices. Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure non-discrimination and equal opportunity, including for specific groups such as women, people with disabilities, migrant workers and children (of working age in accordance with GCC Sub-Clause 9.4.15).
- 9.4.19 **Contractor's Personnel Grievance Mechanism.** The Contractor shall have a grievance mechanism for Contractor's Personnel, and where relevant the workers' organizations stated in GCC Sub-Clause 9.4.17, to raise workplace concerns. The grievance mechanism shall be proportionate to the nature, scale, risks and impacts of the Contract. The mechanism shall address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned in a language they understand, without any retribution, and shall operate in an independent and objective manner. The Contractor's Personnel shall be informed of the grievance mechanism at the time of engagement for the Contract, and the measures put in place to protect them against any reprisal for its use. The grievance mechanism shall not impede access to other judicial or administrative remedies that might be available.
- 9.4.20 **Training of Contractor's Personnel.** The Contractor shall provide appropriate training to relevant Contractor's Personnel on ES aspects of the Contract, including appropriate sensitization on prohibition of SEA and SH, and health and safety.
- 10. Employer's and Contractor's Risks**
- 10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.
- 11. Employer's Risks**
- 11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to
 - (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.
 - (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.
 - 11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to
 - (a) a Defect which existed on the Completion Date,
 - (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or
 - (c) the activities of the Contractor on the Site after the Completion Date.
- 12. Contractor's Risks**
 - 12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.
- 13. Insurance**
 - 13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles if **stated in the PCC** for the following events which are due to the Contractor's risks:
 - (a) loss of or damage to the Works, Plant, and Materials;
 - (b) loss of or damage to Equipment;
 - (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
 - (d) personal injury or death.
 - 13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager if stated in the PCC at 13.1, for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
 - 13.3 Subject to 13.1, if the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
 - 13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.
 - 13.5 Both parties shall comply with any conditions of the insurance policies.
- 14. Site Data**
 - 14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the PCC**, supplemented by any information available to the Contractor.
- 15. Contractor to Construct the Works**
 - 15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
 - 15.2 If the Contract specifies that the Contractor shall design any part of the permanent Works, the Contractor shall take into account the Employer's requirements which may include, if stated in the Specifications:
 - (a) designing structural elements of the Works taking into account climate change considerations;
 - (b) and
 - (c) considering the incremental risks of the public's potential exposure to operational accidents or natural hazards, including extreme weather events.

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| 16. The Works to Be Completed by the Intended Completion Date | <p>16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.</p> <p>16.2 The Contractor shall not carry out mobilization to the Site as per Code of Conduct for Contractor's Personnel submitted as part of the Bid and agreed as part of the Contract.</p> |
| 17. Approval by the Project Manager | <p>17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.</p> <p>17.2 The Contractor shall be responsible for design of Temporary Works.</p> <p>17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.</p> <p>17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.</p> <p>17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.</p> |
| 18. Health, Safety and Protection of the Environment | <p>18.1 The Contractor shall be responsible for the safety of all activities on the Site.</p> <p>18.2 The Contractor shall:</p> <ul style="list-style-type: none"> (a) comply with all applicable health and safety regulations and Laws; (b) comply with all applicable health and safety obligations specified in the Contract; (c) take care for the health and safety of all persons entitled to be on the Site and other places, if any, where the Works are being executed; (d) keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons; (e) provide fencing, lighting, safe access, guarding and watching of the Works until the issue of the Contract Completion Certificate; (f) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land; (g) provide health and safety training of Contractor's Personnel as appropriate; (h) actively engage the Contractor's Personnel in promoting understanding, and methods for, implementation of health and safety requirements, as well as in providing information to Contractor's Personnel, training on occupational safety and health, and provision of personal protective equipment without expense to the Contractor's Personnel; (i) put in place workplace processes for Contractor's Personnel to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health. (j) Contractor's Personnel who remove themselves from such work situations shall not be required to return to work until necessary remedial action to correct the situation has been taken. Contractor's Personnel shall not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal; (k) where the Employer's Personnel, any other contractors employed by the Employer, and/or personnel of any legally constituted public authorities and private utility companies are employed in carrying out, on or near the site, of any work not included in the Contract, collaborate in applying the health and safety requirements, without prejudice to the responsibility of the relevant entities for the health and safety of their own personnel; and (l) deleted. <p>Subject to GCC Sub-Clause 16.2, the Contractor</p> <ul style="list-style-type: none"> (a) shall include at a minimum: <ul style="list-style-type: none"> (i) to establish and maintain a safe working environment without risk to health at all workplaces, machinery, equipment and processes under the control of the Contractor, including control measures for chemical, physical and biological substances and agents; (ii) deleted; |

- (iii) the prevention, preparedness and response activities to be implemented in the case of an emergency event (i.e. an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning);
- (iv) remedies for adverse impacts such as occupational injuries, deaths, disability and disease;
- (v) the measures to be taken to avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases,
- (vi) the measures to avoid or minimize the spread of communicable diseases (including transfer of Sexually Transmitted Diseases or Infections (STDs), such as HIV virus) and non-communicable diseases associated with the execution of the Works, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups. This includes taking measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent Contract-related labor;
- (vii) the management and quality of accommodation and welfare facilities if such accommodation and welfare facilities are provided by the Contractor in accordance with GCC Sub-Clause 9.4.6; and
- (b) any other requirements stated in the Specification

18.3 Protection of the environment

The Contractor shall take all necessary measures to:

- (a) protect the environment (both on and off the Site); and
- (b) limit damage and nuisance to people and property resulting from pollution, noise and other results of the Contractor's operations and/ or activities.

The Contractor shall ensure that emissions, surface discharges, effluent and any other pollutants from the Contractor's activities shall exceed neither the values indicated in the Specifications, nor those prescribed by applicable laws.

In the event of damage to the environment, property and/or nuisance to people, on or off Site as a result of the Contractor's operations, the Contractor shall agree with the Project Manager the appropriate actions and time scale to remedy, as practicable, the damaged environment to its former condition. The Contractor shall implement such remedies at its cost to the satisfaction of the Project Manager.

19. Archaeological and Geological Findings

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

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

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

20. Possession of the Site

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

21. Access to the Site

- 21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager (including the GSCDL staff or consultants acting on the GSCDL's behalf, stakeholders and third parties, such as independent experts, local communities, or non-

- governmental organizations), including to carry out environmental and social audit, as appropriate, access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
- 22. Instructions, Inspections and Audits**
- 22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.
- 22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and subconsultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.
- 22.3 Inspections & Audit by the GSCDL
Pursuant to paragraph 2.2 e. of Appendix A to the GCC- Fraud and Corruption, the Contractor shall permit and shall cause its agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit, the GSCDL and/or persons appointed by the GSCDL to inspect the site and/or the accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have such accounts, records and other documents audited by auditors appointed by the GSCDL. The Contractor's and its Subcontractors' and subconsultants' attention is drawn to GCC Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the GSCDL's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the GSCDL's prevailing sanctions procedures).
- 23. Appointment of the Adjudicator**
- 23.1 The Adjudicator shall be appointed by the Employer.
- 23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be appointed by the Employer.
- 24. Procedure for Disputes**
- 24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.
- 24.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.
- 24.3 The Adjudicator shall be paid by the hour at the **rate specified in the PCC**, together with reimbursable expenses of the types **specified in the PCC**, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.
- 24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place **specified in the PCC**.
- 25. Fraud and Corruption**
- 25.1 The GSCDL requires compliance with the GSCDL's Anti-Corruption Guidelines as set forth in Appendix A to the GCC.
- 25.2 The Employer requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.
- 26. Stakeholder Engagement**
- 26.1 The Contractor shall provide relevant contract- related information, as the Employer and/or Project Manager may reasonably request to conduct Stakeholder engagements. "Stakeholder" refers to individuals or groups who:
- (i) are affected or likely to be affected by the Contract; and
 - (ii) may have an interest in the Contract.
- The Contractor may also directly participate in Stakeholder engagements, as the Employer and/or Project Manager may reasonably request
- 27. Suppliers (other than Subcontractors)**
- 27.1 Forced Labor: The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage forced labor including trafficked persons as described in GCC Sub-Clause 9.4.14. If forced labor/trafficking cases are identified, the

Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.2 Child Labor: The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage child labor as described in GCC Sub-Clause 9.4.15. If child labor cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.3 Serious Safety Issues: The Contractor, including its Subcontractors, shall comply with all applicable safety obligations, including as stated in GCC Sub-Clause 18.2. The Contractor shall also take measures to require its suppliers (other than Subcontractors) to adopt procedures and mitigation measures adequate to address safety issues related to their personnel. If serious safety issues are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.4 Obtaining natural resource materials in relation to supplier: The Contractor shall obtain natural resource materials from suppliers that can demonstrate, through compliance with the applicable verification and/ or certification requirements, that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats such as unsustainably harvested wood products, gravel or sand extraction from river beds or beaches.

If a supplier cannot continue to demonstrate that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to demonstrate that they are not significantly adversely impacting the habitats.

28. Code of Conduct

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

29. Security of the Site

29.1 The Contractor shall be responsible for the security of the Site, and:

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

Subject to GCC Sub-Clause 16.2, the Contractor shall submit for the Project Manager's No-objection a security management plan that sets out the security arrangements for the Site. The Contractor shall (i) conduct appropriate background checks on any personnel retained to provide security; (ii) train the security personnel adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct towards Contractor's Personnel, Employer's Personnel and affected communities; and (iii) require the security personnel to act within the applicable Laws and any requirements set out in the Specifications.

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

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

B. Time Control

30. Program and Progress Reports

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

sum contract, the activities in the Program shall be consistent with those in the Activity Schedule. The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

30.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

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

30.4 Deleted

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

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

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

31. Extension of the Intended Completion Date

31.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

31.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

32. Acceleration

32.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.

32.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

33. Delays Ordered by the Project Manager

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

- 34. Management Meetings**
- 34.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 34.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.
- 35. Early Warning**
- 35.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 35.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.
- C. Quality Control**
- 36. Identifying Defects**
- 36.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.
- 37. Tests**
- 37.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specifications to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.
- 38. Correction of Defects**
- 38.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is **defined in the PCC**. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 38.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.
- 39. Uncorrected Defects**
- 39.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.
- D. Cost Control**
- 40. Contract Price**
- 40.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.
- 41. Changes in the Contract Price**
- 41.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.
- 41.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.
- 42. Variations**
- 42.1 All Variations shall be included in updated Programs produced by the Contractor.
- 42.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Contractor shall also provide information of any ES risks and impacts of the Variation. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

- 42.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 42.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 42.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.
- 42.6 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC Sub-Clause 41.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.
- 42.7 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following:
- (a) the proposed change(s), and a description of the difference to the existing contract requirements;
 - (b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle cost) the Employer may incur in implementing the value engineering proposal;
 - (c) a description of any effect(s) of the change on performance/functionality; and
 - (d) a description of the proposed work to be performed, a program for its execution and sufficient ES information to enable an evaluation of ES risks and impacts.

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

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

without compromising the functionality of the Works.

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

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

43. Cash Flow Forecasts

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

44. Payment Certificates

- 44.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 44.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 44.3 The value of work executed shall be determined by the Project Manager as indicated under **Measurements**.
- 44.4 The value of work executed shall comprise the value of the quantities of work in the Bill of Quantities that have been completed.
- 44.5 The value of work executed shall include the valuation of Variations and Compensation Events.
- 44.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- 44.7 If the Contractor was, or is, failing to perform any ES obligations or work under the Contract, the value of this work or obligation, as determined by the Project Manager, may be withheld until the work or obligation has been performed, and/or the cost of rectification

or replacement, as determined by the Project Manager, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:

- (a) failure to comply with any ES obligations or work described in the Works' Requirements which may include: working outside site boundaries, excessive dust, failure to keep public roads in a safe usable condition, damage to offsite vegetation, pollution of water courses from oils or sedimentation, contamination of land e.g. from oils, human waste, damage to archeology or cultural heritage features, air pollution as a result of unauthorized and/or inefficient combustion;
- (b) deleted;
- (c) deleted;
- (d) failing to have appropriate consents/permits prior to undertaking Works or related activities;
- (e) deleted;
- (f) failure to implement remediation as instructed by the Project Manager within the specified timeframe (e.g. remediation addressing non-compliance/s).

45. Payments

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

46. Compensation Events

- 46.1 The following shall be Compensation Events:
 - (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
 - (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
 - (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
 - (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
 - (e) The Project Manager unreasonably does not approve a subcontract to be let.
 - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
 - (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
 - (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
 - (i) deleted.
 - (j) The effects on the Contractor of any of the Employer's Risks.
 - (k) The Project Manager unreasonably delays issuing a Certificate of Completion.
- 46.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.
- 46.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's

- forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.
- 46.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.
- 47. Tax** 47.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 49.
- 48. Currencies** 48.1 Where payments are made in currencies other than the currency of the Employer's country **specified in the PCC**, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.
- 49. Price Adjustment** 49.1 Deleted.
49.2 Deleted
- 50. Retention** 50.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the PCC** until Completion of the whole of the Works.
50.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC Sub-Clause 57.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an "on demand" Bank guarantee.
- 51. Liquidated Damages** 51.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the PCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the PCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.
51.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 45.1.
- 52. Bonus** 52.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the PCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.
- 53. Advance Payment** 53.1 The Employer shall make advance payment to the Contractor of the amounts **stated in the PCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid. Interest shall not be charged on the advance payment.
53.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.
53.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.
- 54. Securities** 54.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the PCC**, by a Bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be

valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee.

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| 55. Dayworks | <p>55.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only for the lumpsum provisions in the BOQ or when the Project Manager has given written instructions in advance for additional work to be paid for in that way.</p> <p>55.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.</p> <p>55.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.</p> |
| 56. Cost of Repairs | <p>56.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.</p> |
| E. Finishing the Contract | |
| 57. Completion | <p>57.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.</p> |
| 58. Taking Over | <p>58.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.</p> |
| 59. Final Account | <p>59.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.</p> |
| 60. Operating and Maintenance Manuals | <p>60.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the PCC.</p> <p>60.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the PCC pursuant to GCC Sub-Clause 60.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the PCC from payments due to the Contractor.</p> |
| 61. Termination | <p>61.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.</p> <p>61.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:</p> <ul style="list-style-type: none"> (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager; (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days; (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation; (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate; (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager; (f) the Contractor does not maintain a Security, which is required; (g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the PCC; or (h) if the Contractor, in the judgment of the Employer has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Employer may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site. <p>61.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.</p> |

- 61.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.
- 61.5 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 61.2 above, the Project Manager shall decide whether the breach is fundamental or not.
- 62. Payment upon Termination**
- 62.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as **specified in the PCC**. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.
- 62.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.
- 63. Property**
- 63.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.
- 64. Release from Performance**
- 64.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.
- 65. Suspension of Funds**
- 65.1 Notwithstanding any clause or clauses or conditions contained anywhere in this Bidding document, the Employer is not obligated to immediately make the payments to the contractor in the event that the Govt of India or the State Government delays the release of funds to the Employer, from which part of the payments to the Contractor are being made; payments shall be made subject to availability of funds. In the event the Government of India or the State Government suspends the funding, the settlement of payments for the works done by the contractor will be made by co- owners of the company viz., the Government of India and the State Government based on the bills certified by the Project Manager.

**APPENDIX A
TO GENERAL CONDITIONS**

Fraud and Corruption

Refer to Section VI

APPENDIX B - Omitted

Section IX - Particular Conditions of Contract

A. General	
GCC 1.1 (d)	The financing institution is: The Smart City Mission jointly by the Govt of India and Govt of Sikkim
GCC 1.1 (r)	The Employer is Gangtok Smart City Development Limited
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be 12 months after the date of issue of letter to proceed
GCC 1.1 (y)	The Project Manager is Chief Technical Officer, GSCDL.
GCC 1.1 (aa)	The Site is located in and around Gangtok city.
GCC 1.1 (dd)	The Start Date shall be 15 days from the issue of letter to proceed
GCC 1.1 (hh)	The Works consist of improvement of selected feeder roads in and around Gangtok as per specifications in the BOQ.
GCC 2.2	N.A
GCC 2.3(i)	The following documents also form part of the Contract: Engineers Estimate prepared before floating the Bid, which shall be referred to for any clarification of doubts.
GCC 3.1	The language of the contract is in English only The law that applies to the Contract is the law of the Republic of India.
GCC 5.1	The Project manager may delegate any of his duties and responsibilities.
GCC 8.1	NA
GCC 13.1	The insurance amounts and deductibles shall be as per the Labour laws.
GCC 14.1	Site Data are: <ol style="list-style-type: none"> 1. Site Order Book 2. Site Level Book 3. Construction Drawings 4. Material Account at site 5. Daily Progress Report 6. Before & After Photographs 7. Cement Test Certificate 8. Bitumen Test Certificate 9. Reinforcement & Structural Steel Test Certificate

GCC 20.1	The Site Possession Date(s) shall be feeder road as mentioned in the BOQ. ; Dated: 15 days from the signing of the Contract.
GCC 23.1 & GCC 23.2	Not applicable
GCC 24.3	Not applicable
GCC 24.4	Institution whose arbitration procedures shall be used: Indian Arbitration Act.
B. Time Control	
GCC 30.1	The Contractor shall submit for approval a Program for the Works within seven days from the date of the Letter of Acceptance.
GCC 30.3	<p>The period between Program updates is 15 days.</p> <p>The amount to be withheld for late submission of an updated Program is 5% of the amount to be paid in the running bill.</p> <p>The period for submission of progress reports is seven days</p>
C. Quality Control	
GCC 38.1	The Defects Liability Period is: 365 days.
D. Cost Control	
GCC 42.7	NA
GCC 48.1	The currency of the Employer's Country is Indian Rupees
GCC 49.1	The Contract "is not" subject to price adjustment in accordance with GCC Clause 45.
GCC 50.1	The proportion of payments retained is: 5 percentage
GCC 51.1	The liquidated damages for the whole of the Works are [0.05 percentage of the final Contract Price] per day. The maximum amount of liquidated damages for the whole of the Works is [5 percentage] of the final Contract Price.
GCC 52.1	omitted
GCC 53.1	The Advance Payments shall be: 15% of the Contract Price as calculated after deducting GST and Cess, shall be paid to the Contractor on submission of a valid Bank Guarantee.
GCC 54.1	omitted
GCC 54.1	<p>The Performance Security amount is Five percent of the Contract Price.</p> <p>The Performance Security shall be in the form of the specified Bank Guarantee:</p> <p>[The Bank Guarantee shall be unconditional (on demand) (see Section X, Contract Forms).</p>

E. Finishing the Contract	
GCC 60.1	The date by which operating and maintenance manuals are required is not applicable. The date by which “as built” drawings are required is fifteen day of final measurements but before release of final bill.
GCC 60.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC Sub-Clause 60.1 is 5% of the next interim payment due to the Contractor.
GCC 61.2 (g)	The maximum number of days is: 100 days
GCC 62.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is twenty percent
GCC 66	The documents attached in Appendix 1 shall form part of the Contract: Environmental Management Plan.

Appendix 1: Environmental Management Plan

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation
Sources of Materials	Extraction of rocks and material may cause ground instability	i) use quarry sites and sources permitted by government. ii) verify suitability of all material sources and obtain approval of GSCDL. iii) Submit to GSCDL on a monthly basis documentation of sources of materials.	Contractor	Contractor’s documentation.
Air Quality	Emissions from construction vehicles, equipment and machinery used for excavation and construction resulting to ducts and increase in concentration of vehicle-related pollutants such as carbon monoxide, Sulphur oxides, particulate matter, nitrous oxides and hydrocarbons	i) Consult with GSCDL on the designated areas for stockpiling of clay, soils, gravel and other construction materials. ii) Damp down exposed soil and any stockpiles on site by spraying with water when necessary during dry weather. iii) Bring materials as and when required	Contractor	i) Location of stockpiles ii) Complaints from sensitive receptors iii) Heavy equipment and machinery with air pollution control devices. iv) Ambient air for Respirable particulate matter (RPM) and suspended particulate matter (SPM). v) Vehicular emission such as Sulphur dioxide (SO ₂), nitrous oxides (NO _x), carbon monoxide (CO), and hydrocarbons

		<p>iv) use tarpaulins to cover sand and other loose material when transported by vehicles.</p> <p>v) Fit all heavy equipment and machinery with air pollution control devices which are operating correctly and</p> <p>vi) Clean wheels and undercarriage of vehicles prior to leaving construction site.</p>		
Surface water quality	Mobilization of settled silt materials, run-off from stockpiled materials, and chemical contamination from fuels and lubricants during construction works can contaminate nearby surface water quality.	<p>i) Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets.</p> <p>ii) Prioritize re-use of excess spoils and material in the construction works. If spoils will be disposed, consult with GSCDL on designated disposal areas.</p> <p>iii) Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies.</p> <p>iv) Place storage areas for fuel and lubricants away from any drainage leading to water bodies.</p> <p>v) Dispose any wastes generated by construction activities in designated sites; and</p> <p>vi) Conduct surface quality inspection according to the Environmental Management plan (EMP)</p>	Contractor	<p>i) Areas for stockpiles, storage of fuels and lubricants and waste materials</p> <p>ii) Number of silt traps installed along drainages leading to water bodies.</p> <p>iii) Records of surface water quality inspection</p> <p>iv) Effectiveness of water management measures.</p>
Noise Levels	Increase in noise level due to earth moving and excavation equipment and	i) Plan activities in consultation with GSCDL so that	Contractor	i) Complaints from sensitive receptors

	the transportation of equipment, materials and people	<p>activities with the greatest potential to generate noise are conducted during period of the day which will result in least disturbance</p> <p>ii) provide prior information to the local public about the work schedule.</p> <p>iii) Require horns not be used unless it is necessary to warn other road users or animals of the vehicle's approach.</p> <p>iv) Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise reducing mufflers and portable street barriers the sound impact to surrounding sensitive receptors and</p> <p>vi) Maintain maximum sound levels not exceeding 80 decibels (dBA) when measured at a distance of 10m or more from the vehicles.</p>		<p>ii) use of silencers in noise producing equipment and sound barriers</p> <p>iii) Equivalent day and night time noise levels.</p>
Socio-Economic Employment and income	Generation of contractual employment and increase in local revenue	<p>i) Employ at least 50% of the labour force or to the maximum extent, local persons within the 2 km immediate area if manpower is available and</p> <p>ii) Secure construction materials from local market.</p>	Contractor	<p>i) Employment records</p> <p>ii) records of sources of materials.</p>
Occupational Health and Safety	Occupational hazards which can arise during work	<p>i) Develop and implement site-specific Health and safety (H&S) plan which will include measures such as a) excluding public from the site b) ensuring all</p>	Contractor	<p>i) Site specific Health and Safety Plan</p> <p>ii) Equipped first aid stations</p> <p>iii) Medical insurance coverage for workers.</p> <p>iv) Number of accidents</p> <p>v) Supplies of potable drinking water</p>

		<p>workers are provided with and used Personal Protective Equipment c) H&S Training for all site personnel d) documented procedures to be followed for all site activities and e) documentation of work-related accidents</p> <p>ii) Ensure that qualified first aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site.</p> <p>iii) Provide medical insurance coverage for workers.</p> <p>iv) Secure all installations from unauthorized intrusion and accident risks</p> <p>v) provide supplies of portable drinking water</p> <p>vi) Provide clean eating areas where workers are not exposed to hazardous or noxious substance</p> <p>vii) Provide H & S orientation training to all new workers to ensure that they are apprised of the basic site rules of work at the site, rules of work at the site, personal protective protection and preventing injuring to fellow workers</p> <p>viii) provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitors do not enter hazard areas unescorted.</p> <p>ix) Ensure the visibility of workers through their use of high visibility</p>		<p>vi) Clean eating areas where workers are not exposed to hazardous or noxious substances</p> <p>vii) record of H & S orientation trainings</p> <p>viii) personal protective equipment</p> <p>ix) % of moving equipment outfitted with audible back-up alarms.</p> <p>xi) Sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing, high voltage equipment and areas for storage and disposal.</p>
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		<p>vests when working in or walking through heavy equipment operating areas.</p> <p>x)Ensure moving equipment is outfitted with audible back-up alarms.</p> <p>xi)Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to and easily understood by workers, visitors and the general public as appropriate and</p> <p>xii) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.</p>		
Quarry Sites and Borrow Pits	Extraction of non-stock materials and other loose materials other than stones can cause disruption of natural land contours and vegetation resulting in accelerated erosion, landslide disturbance in natural drainage patterns, sedimentation/situation of surface waters and water pollution.	<p>i)Verify suitability of all materials sources and obtain approval of GSCDL</p> <p>ii)prioritize government approved quarries and borrow pits</p> <p>iii)Obtain approval of GSCDL if new quarries and borrow sites are necessary.</p> <p>iv)Obtain approval of GSCDL if extracting rocks, gravel and sand from small rivers or streams is necessary. The extraction points</p>	Contractor	<p>i)list of approved quarry sites and borrow pits.</p> <p>iii)GSCDL/PDMC report in writing that the necessary environmental restoration work has been adequately performed before the acceptance of work.</p>

		<p>shall be spread out along the length of the river to minimize disruption in river flow and to prevent instability to embankments. Local residents and water users shall be consulted to ensure that irrigation intakes, bunds, and local fishing are not adversely impacted</p> <p>v)Request GSCDL to report in writing that the necessary environmental restoration work has been adequately performed before the acceptance of work.</p>		
Work Camps	Temporary air and noise pollution from machine operation, water pollution from storage and use of fuels, oils, solvents and lubricants	<p>i)Consult with GSCDL before locating project offices, shed and construction plants</p> <p>ii)Minimize removal of vegetation and disallow cutting of trees</p> <p>iii)Provide water and sanitation facilities for employees.</p> <p>iv)Prohibit employees from poaching facilities and cutting of trees for firewood</p> <p>v)Train employees in the storage and handling of materials which can potentially cause soil contamination</p> <p>vi)Recover used oil and lubricants and reuse or remove from the site</p> <p>vii)Manage solid waste according to the following preference hierarchy, reuse, recycling and disposal to designated areas.</p> <p>viii)Remove all wreckage, rubbish or temporary structures</p>	Contractor	<p>i)_Complaints from sensitive receptors</p> <p>ii)Water and sanitation facilities for employees and</p> <p>iii)GSCDL/PDMC report in writing that the camp has been vacated and restore to pre-project conditions.</p>

		<p>which are no longer required and</p> <p>ix)Request GSCDL to report in writing that the camp has been vacated and restored to pre-project conditions before the acceptance of work.</p>		
Social and Cultural Resources-Chance Fields	Risk of archaeological chance fields	<p>i)strictly follow the protocol for chance finds in any excavation work</p> <p>ii)Request GSCDL or any authorized person with archaeological/historical field training to observe excavation</p> <p>iii)Stop work immediately to allow further investigation if any finds are suspected and</p> <p>iv)inform GSCDL if a find is suspected and take any action, they require ensuring its removal or protection in situ.</p>	Contractor	Records of chance finds

Section X - Contract Forms

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Notification of Intention to Award

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

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

For the attention of Bidder's Authorized Representative

Name: [insert Authorized Representative's name]

Address: [insert Authorized Representative's Address]

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

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

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

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

Notification of Intention to Award

Employer: Gangtok Smart City Development Ltd

Project: Improvement of Selected Feeder Roads in and around Gangtok.

Country: India

RFB No: 007/GSCDL/2020, **Project identification No:** SIK-GAN-077.

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

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

1. The successful Bidder

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

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

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

[insert name]	[insert Bid price]	[insert evaluated price]
[insert name]	[insert Bid price]	[insert evaluated price]

3. Reason/s why your Bid was unsuccessful

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

4. How to request a debriefing

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

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

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

Attention: Mr. Bhupendra Kothari, Chief Technical Officer

Address: Gangtok Smart City Development Limited, Sokaythang, Gangtok, East Sikkim

City: Gangtok, Pin Code: 737102, India

Phone Number: 8116679989

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

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

5. How to make a complaint

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

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

Attention: Mr. Bhupendra Kothari, Chief Technical Officer

Address: Gangtok Smart City Development Limited, Sokaythang, Gangtok, East Sikkim

City: Gangtok, Pin Code: 737102, India

Phone Number: 8116679989

Electronic mail address: ctosmartcity.gangtok@gmail.com

In summary, there are four essential requirements:

1. You must be an 'interested party'. In this case, that means a Bidder who submitted a Bid in this bidding process, and is the recipient of a Notification of Intention to Award.
2. The complaint can only challenge the decision to award the contract.

3. You must submit the complaint within the period stated above.
4. You must include, in your complaint, all of the information required.

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

On behalf of the Employer:

Signature: _____

Name: _____

Title/position: _____

Telephone: _____

Email: _____



Gangtok Smart City Development Limited,
Sokaythang, Gangtok,
Sikkim – 737102
T – 03592 – 280290
E Mail – gangtoksmartcity@gmail.com
CIN – U9309090WB2017SGC223807

Memo No. /GSCDL/2020

Dated: . .2020

Letter of Acceptance

To:[name and address of the Contractor]

Subject:

[Notification of Award Contract No].

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

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

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

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Contract Agreement

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

WHEREAS the Employer desires that the Works known as **Jhora Training and Drainage Improvement below ICAR (below Hotel Spring Brook)** should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

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

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

Signed by: _____

for and on behalf of the Employer

Signed by: _____

for and on behalf the Contractor

in the
presence of: _____

Witness, Name, Signature, Address,
Date

in the
presence of: _____

Witness, Name, Signature, Address, Date

Performance Security - Bank Guarantee

Bank Guarantee

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

Applicant: [Insert name and Address of Contractor]

Beneficiary: Gangtok Smart City Development Limited, Sokaythang, Gangtok, East Sikkim

Date: [Insert date of issue]

BANK GUARANTEE No.: [Insert guarantee reference number]

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

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

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

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

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

[signature(s)]

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

Advance Payment Security

Bank Guarantee

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

Applicant: [Insert name and Address of Contractor]

Beneficiary: Gangtok Smart City Development Limited

Date: [Insert date of issue]

BANK GUARANTEE No.: [Insert guarantee reference number]

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

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

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

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

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

[signature(s)]

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