GUJARAT INDUSTRIES POWER COMPANY LIMITED
(Surat Lignite Power Plant)

AT & POST NANI NAROLI, TALUKA: MANGROL, DIST: SURAT, PIN 394110 (GUJARAT)
Phone Nos.: EPABX (02629) 261063 to 261072, fax Nos.: (02629) 261112, 261080

VOLUME – I

TENDER DOCUMENTS FOR;

"Surat Lignite Power Plant - 4 x 125 MW, Unit 1 to 4: Repair & Resurfacing of various bituminous roads of Power Plant and SLPP Colony (Year: 2026-27).

Bid No.: SLPP/Civil/Repair BT Road /2026/

((n)Procure new Tender Portal E-Tender Id: 367182)

INSTRUCTIONS TO BIDDERS & CONDITIONS OF CONTRACT

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NOTE: All the Bidders should study entire Tender documents carefully & may carry out site visit before quoting & submitting their online Bid to understand scope of work and its importance.

NOTICE INVITING TENDER (NIT)
TENDER NO.: SLPP/Civil/ Repair BT Roads/2026

Name of work	Surat Lignite Power Plant - 4 x 125 MW, Unit 1 to 4: Repair & Resurfacing of various bituminous roads of Power Plant and SLPP Colony (Year: 2026-27).
Estimated value of work	Rs. 2,78,45,166.05 (including 18% GST) as per Schedule of Rate & estimated quantities mentioned in Section-E.
Place of work	Surat Lignite Power Plant & associated Colony, Village: Nani Naroli, Taluka: Mangrol, Dist.: Surat - 394110 (Gujarat).
Quantity	The successful Bidder will be awarded this contract involving total quantities of various items as mentioned against item descriptions in BOQs.
Contract period	06 Months Liquidated Damages (LD): 0.50% of the "Contract Value (without GST)" per week of delay attributable to the contractor, subject to maximum 10% of the Contract Value (without GST).For details, refer subsequent clause no. 16 (Section-A) & clause no. 3 (Section-D).
EMD	Rs. 1,77,000/- (Rupees One Lakh Seventy seven Thousand only) as per details mentioned hereinunder in clause no. 7 of Instructions to Bidders (Section-A)..
Cost of tender document / tender fee	Rs.2,950/- (Rupees Two Thousand Nine Hundred and Fifty only), nonrefundable, inclusive of applicable GST, to be submitted through RTGS or through online payment gateway of company's website: www.gipcl.com (online Payment Form) as per details mentioned herein under clause no. 7 of Instructions to Bidders (Section-A).
Site Visit	Site visit before submission of bid as per clause no. 4 (Section-A: Instructions to Bidders) at GIPCL (Surat Lignite Power Plant) and SLPP Colony, Village: Nani Naroli, Ta. Mangrol, Dist. Surat.
Availability of online e-Tender document	On website: https://tender.nprocure.com or https://gipcltender.nprocure.com and also www.gipcl.com up to **11.12.2026, 17:30 hrs.**
Last date of online submission of offer	Through website: https://tender.nprocure.com or https://gipcltender.nprocure.com up to **11.12.2026,17:30 hrs.**
Submission of EMD (as above) and online Tender fee transaction detail along with supporting documents for techno-commercial bid in physical form in sealed cover.	**On or before 17.30 hrs. of last date of bid submission during working days** at office of Surat Lignite Power Plant, Nani Naroli, Dist. Surat.
E-Reverse Auction	E-Reverse Auction will be executed through website: https://e-auction.nprocure.com (Schedule will be intimated later on to eligible bidders).

NOTES:

1. Amendment / corrigendum of the tender document, forms, schedules, etc... may be done any time by the GIPCL during the period of publication of tender in the website. The Bidders are required to visit the website regularly till the last date & time of Bid submission.
2. GIPCL reserves the right to reject any or all the tenders without assigning any reason thereof.
3. The Bidders are required to quote the rate/Price (including GST) strictly as per the terms and conditions mentioned in the tender document, adhering to technical specifications as well.
4. Bidders are advised to submit their online bid well in advance to avoid any unexpected last moment technical issues with (n)procure site. In case of any issues /difficulties cropping up during online bid submission / uploading / submission of documents, etc…, bidders are requested to inform these well in advance (at least two days before closing of tender) to (n) Code Solutions as mentioned in Section-B of tender as well as to GIPCL email to rbsoni@gipcl.com
5. The Bidders are required to submit their Bid offer online only through the website https://tender.nprocure.com or https://gipcltender.nprocure.com **(E-Tender ID: 367182)**.
6. EMD either in physical form by way of DD/BG or copies of payment receipts of EMD and Tender fee paid through RTGS/online along with other supporting documents are to be submitted in physical form in sealed cover/envelop at the following address on or before date & time mentioned in above NIT. At the top of envelop, tender notice no.: **SLPP/Civil/ Repair BT Roads/2026** should be superscripted.

Chief General Manager (Thermal)
Gujarat Industries Power Company Limited
Surat Lignite Power Plant
At Village: Nani Naroli,
Taluka: Mangrol,
Dist.:Surat-394 110, Gujarat.
Phone: (02629) 261063-65. E-Mail: rbsoni@gipcl.com

SECTION-A
INSTRUCTIONS TO BIDDERS

1. PLANT SYNOPSIS

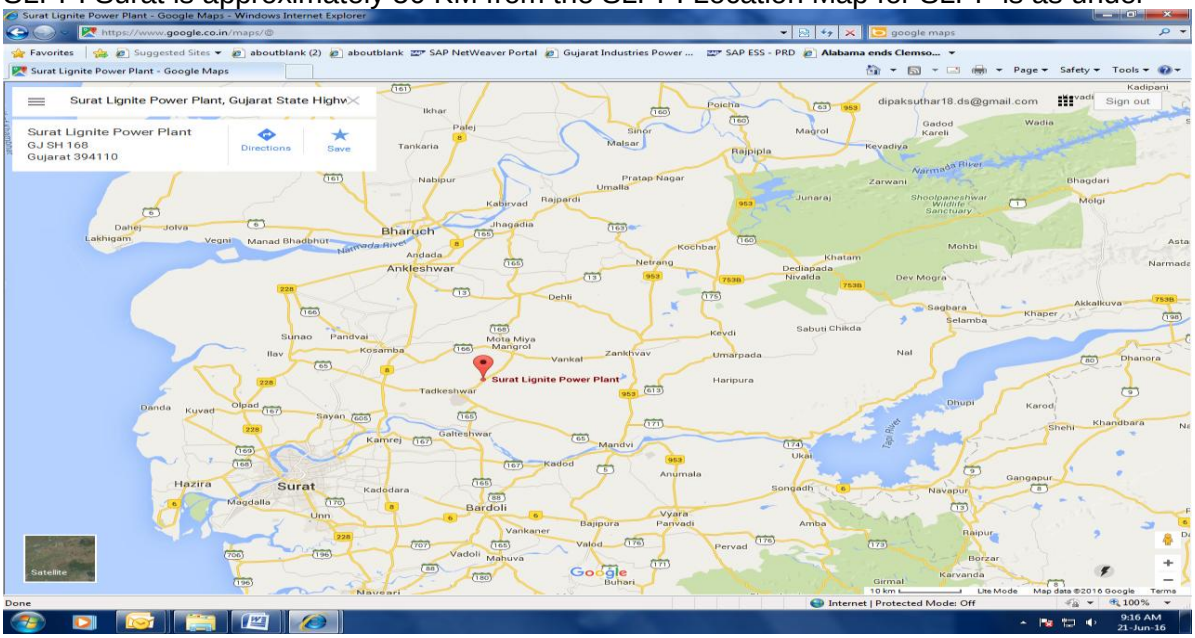
Gujarat Industries Power Company Limited (GIPCL) (henceforth be named Company/GIPCL), is a Premier Power Utility in the State of Gujarat with an installed capacity of 1859.40 MW comprising of various conventional and renewable projects.

GIPCL commissioned its first power project; a 145 MW gas based combined cycle power plant in year 1992 at Vadodara. It expanded its capacity 165 MW Naptha & gas based Combined Cycle Power Plant at Vadodara in year 1997. GIPCL has commissioned 1MWp Distributed Solar Power Projects at two locations in Gujarat viz. at Village: Amrol, Dist.: Anand and at Village: Vastan, Taluka Mangrol, Dist.: Surat.

Surat Lignite Power Plant (SLPP) with four units of 125 MW installed capacity each is located at Village: Nani Naroli, Taluka: Mangrol, District: Surat in Gujarat. GIPCL has also operating its own captive Lignite and Lime Stone Mines close to the Power Plant. The Power Plant is based on Circulating Fluidized Bed Combustion (CFBC) technology for the Boilers, where Lignite is burnt along with Lime Stone in the Combustor of the Boiler. It also commissioned 5 MW solar power station at SLPP in year 2012.

GIPCL has successfully commissioned 937 MW Solar Generating Capacity spread across various locations in Gujarat and 112.40 MW Wind Generating Capacity in the Saurashtra & Kutch region of Gujarat

Surat Lignite Power Plant (SLPP) is accessible by road from Kim and Kosamba, which are on Mumbai-Ahmadabad highway. From Kosamba, SLPP is around 32 KM, out of which 27 KM is part of the National & State Highway and balance 5 KM is District Road. From Kim, SLPP is around 18 KM, out of which 13 KM is the State Highway and balance 5 KM is District Road. The nearest Broad-Gauge Railway Line is at Kim, which is around 21 KM from the SLPP. Surat is approximately 50 KM from the SLPP. Location Map for SLPP is as under



The Company intends to award this contract for Repair & Resurfacing of various bituminous roads (1) Internal roads of Plant road and (2) SLPP Colony internal roads" at Surat Lignite Power Plant and is therefore inviting open online tender offers from experienced & resourceful contractors.

2. SCOPE OF WORK

Scope of work, in general, comprising of following activities, as per detailed Technical Specifications & Item Descriptions mentioned in subsequent sections of this tender document.

2.1 Cleaning & removing dust from road surface & shoulder portions.

2.2 Removing of highly damaged, loose & settled portions of the road by excavating up to desired firm sub base level wherever required in form of box cutting as directed by Engineer-in-charge such that top finished level shall match almost possible with existing road top after completing desired subsequent activities like laying of WMM, BBC, DBM and BC.

2.3 Before application of subsequent layers, the existing prepared surface shall be thoroughly cleaned from dust by deploying high capacity compressor air.

2.4 In depressions, provide WMM in average 100mm consolidated thick or as required by GIPCL with subsequent primer coat.

2.5 Scarifying the existing bituminous top pavement 6cm to 10cm depth without disturbing the base including diversion of traffic, removing surplus materials and disposal to an approved dumping yard (within 12 km lead) including loading and unloading, all leads and lift, fuel, lubricant charges etc complete.. at required roads/patches as directed by GIPCL.

2.6 Providing required layers (average 75mm) of Bituminous Base Course (BBC) base course on WMM layer.

2.7 Providing and laying avg 50 mm thick compacted or as per GIPCL requirement of Dense graded bituminous macadam.

2.8 Providing and laying avg 30 mm thick compacted or as per GIPCL requirement of Bituminuous Concrete.

2.9 Asphalt painting Providing and applying evenly TACK COAT on road surface with bitumen 60/70 (VG-30) grade @ 5.0 Kg per 10 M2 including heating the asphalt and spraying the same using Bitumen tanker with burner facility & sprayer then spreading approved sand/aggregate/dust over the treated surfaces at the rate of 0.03 M3 per 10 M2.

2.10 Providing and laying hot applied thermoplastic compound average 2.5 mm thick including reflectorizing glass beads.

2.11 All the above mentioned basic sequence shall be follow for repairing. However, for some specific patch, contractor shall proceed with some of the above sequence as per site requirement as directed by Engineer-in-charge. In such case, necessary additional surface preparation, based on first required application, shall be carried out.

2.12 The detail scope of work is mentioned in clause no. 1 of enclosed Section-D (Special Conditions of Contract). The technical activity estimate sheet is given in enclosed Section-E and subsequent detail technical specifications provided in Section-G.

2.13 The bid submitted by the bidder not covering the total scope of work and services as detailed out in the tender document shall be liable for rejection.

2.14 Quantum of job mentioned against all items in the BoQ cum SoR (Schedule of Rate) in Section-E are indicative only & may vary as per site requirements and not to be construed as maximum or guaranteed quantity. The quantities shown

in the SoR (Section-E) are approximate quantities for the completion of entire scope of works within stipulated contract period and it may vary as per job requirements.

2.15 All the miscellaneous activities pertaining to specific work to be executed for satisfactory performance is in the scope of contractor in his quoted rates.

3. GENERAL INSTRUCTIONS

3.1 The Bidders who are interested in participating in the tender must read and comply with the instructions and the Terms & Conditions contained in the tender documents.

3.2 The Bids shall be filled in by the Bidders clearly, neatly and accurately. Any alteration, erasures or overwriting shall be liable to make the tender invalid unless the same is neatly carried out and attested over the full signature of Bidder. The decision of the Company to interpret the information and rates filled in by the Bidder shall be final and binding on the Bidder.

3.3 The Bidders are requested to make themselves fully conversant with the General Conditions of Contract, Special Conditions of Contract, Technical Specifications, Site conditions, Safety & Health Aspects and Norms to be observed etc. before submitting their bids so that no ambiguity arises in these respects subsequent to submission of the Bids.

3.4 Before quoting the bid, the Bidder must visit site and should go through the specifications, scope of work etc. and get himself/herself fully conversant with them. The Bid should include cost of mobilization & demobilization and cost to adhere to all Safety Norms, legal & statutory requirements, etc… as described in the tender. No relaxation or request for revision of quoted/accepted rates shall be entertained subsequent to the opening of Bid or during contract period on account of mobilization or Safety costs or other costs or rate hikes whatsoever and contractor should complete the entire scope of work with due diligence without demanding any escalation in final accepted rates / work order rates.

3.5 Bidder has to submit all the information as per required Bid document. Failure to furnish all the information as per required Bid documents or submission of a Bid containing deviations from the contractual terms and conditions, specifications and requirements, shall be rejected.

3.6 The Bids shall be submitted within the time frames set out in the Notice Inviting Tender ('NIT') and Bids submitted thereafter shall not be accepted and considered.

3.7 The tender documents shall not be transferable.

3.8 The Bidders are expected to examine all instructions, forms, terms & specifications in the Bid documents and to get fully acquainted themselves with all the conditions and matters which may affect the subject matter of the work/tender or the cost thereof. If any Bidder finds any discrepancies or omissions in the specifications and documents or any doubt in true meaning or interpretation of any part, he shall seek necessary clarifications in writing if required.

3.9 Conditional offers shall not be considered and liable to be rejected.

3.10 The Company reserves the right to extend the deadlines for submission of the Bids by giving amendments/corrigendum.

3.11 During evaluation of Bids, the Company may, at its discretion ask the Bidder (s) for clarification of their Bid. The request for clarification and the response shall be in writing and no change in prices or substance of the Bid shall be sought, offered or permitted.

3.12 The Company reserves the right to amend/ modify the Bidding documents at any time prior to the deadline for submission of Bids, either at its own discretion or in response to the clarification requested by a prospective Bidder. In such case, the Company may in its discretion extend the deadline for submission of Bids in order to facilitate the prospective Bidders for incorporating the effect of the amendment in their Bids.

3.13 The Bidders shall bear all costs and expenses associated with the preparation and submission of their respective Bids, to attend meetings or conferences, if any, including any pre-award discussion with the successful Bidder, technical and other presentations etc. and the Company shall not be liable for any expense thereof.

3.14 If the successful Bidder is consortium/joint deed of undertaking of company, the Consortium leader/Bidder shall accept joint and several responsibilities and liabilities for all obligations under the Contract.

3.15 Timely and satisfactory completion of the work and strict adherence to the allotted time frames for jobs shall be the essence of the contract.

3.16 The Company reserves the right to qualify/disqualify any applicant without assigning any reason.
The Bidder shall be disqualified if any untrue statement or misrepresentation is made in the Bid forms, attachments and other supporting documents submitted by the Bidder.

4. PLANT VISIT

It is prerequisite and necessary for all interested bidders to visit the Surat Lignite Power Plant (SLPP) and associated colony after downloading the tender copy from website: https://tender.nprocure.com or https://gipcltender.nprocure.com **to understand the actual working conditions, compliance related to labour, safety etc… before submitting their offer. Failing which, any consequential liabilities arising will be to bidder's account**. The Bidders shall examine the site of works and its surroundings at his/her own responsibility. The bidders shall collect information that may be necessary for preparing the Bid and entering into a contract. All costs and liabilities arising out of the site visit shall be at Bidder's account.

The Bidder is deemed to have examined and understood the scope of work, nature of work, site condition, tender document, obtained his/her own information in all matters whatsoever that might affect the carrying out the works expressly mentioned or works which may have to be carried out to fulfill his/her contractual obligation within the scheduled rates and to have satisfied himself/herself to the sufficiency for his/her offer.

The submission of tender by a contractor implies that he/she has read these instructions, conditions of the contract etc. and has him/herself aware of the scope, nature of works & specifications of the works to be done. GIPCL will not, therefore after acceptance of contractor's rate, pay any extra charges for any other reason in case the contractor is found later on to have misjudged the site conditions.

Any error in description or quantity or omission in the contract document shall not vitiate the contract or release the contractor from executing the work comprised in the contract according to scope of works, magnitude of the works, requirement of materials, equipment, tools & tackles, labour, etc. Contractor has to complete the work in accordance with the contract documents irrespective of any defects,

omissions or errors that may be found in the contract documents. BIDDER shall inspect the site, examine and obtain all information required and satisfy him/herself regarding matters such as access to site, communication, transport, working conditions, hazardous areas, main plant areas, LHS, AHS & ELHS areas, Gate pass system, safety requirements, work permit system, right of way, flow of water during monsoon/dry season, the type & number of equipments, tools & tackles, PPEs etc and facilities required for the satisfactory & timely completion of quality works adhering to safety, the estimated quantity of various items of the work, the availability of local labour, availability & rates of material, local working conditions, uncertainties of weather, obstructions & hindrances that may arise, etc which may affect the work or cost thereof, before submission of his/her Bid. Ignorance of site conditions shall not be accepted by the GIPCL as basis for any claim for compensation. The submission of a Bid by the BIDDER will be construed as evidence that such an examination was made. Any later claims / disputes in regard to rates quoted shall not be entertained or considered by the GIPCL.

The rate quoted by BIDDER shall be based on his/her own knowledge and judgment of the conditions & hazards involved and shall not be based on any representations of the GIPCL Engineer.

5. *ELIGIBILITY CRITERIA (PHYSICAL SELF ATTESTED COPIES OF SUPPORTING DOCUMENTS MUST BE SUBMITTED FOR EACH OF FOLLOWING ELIGIBILITY CRITERIA)*

The following criteria will be adopted for qualifying the Bidders for consideration of the Bid for the further proceeding.

5.1 Bidder should possess minimum Three years of experience during last five years ending last day of the month previous to the one in which tender is invited, in similar nature of jobs like construction of bituminous road works and/or repairing of bituminous road works in **Power Plants / Process Industries / Corporation / Corporate Sectors / Institutes** and should enclose proof of the same. Bidder shall submit necessary evidence for the same like self-attested copies of work orders/Work Execution/Work Completion certificates from clients. The work completion certificate shall comprise of Order value & Executed value. Bidders should have executed the work directly. The work executed as a sub-contractor or subletting agency shall not be taken in to consideration.

5.2 Bidder should produce evidence of having experience of successfully completed/executed similar works as defined above (as per above no. 5.1) during last five years ending last day of the month previous to the one in which tender is invited, satisfactory progress of ongoing works etc. along with certified copies of documentary evidence preferably photo copies of work experience from the clients. The experience should be either of the following

a) One similar completed/executed work each costing not less than the amount equal to Rs.167.00 Lakh.

OR

b) Two similar completed/executed works each costing not less than the amount equal to Rs.111.38 Lakh.

OR

c) Three similar completed/executed works each costing not less than the amount equal to Rs.83.54 Lakh.

Note: For evaluation of the bid the executed value mentioned in the work completion/work in progress certificate will be considered.
Bidder should specifically mention fulfilling of above criteria in his offer along with details of work orders & work completion/execution certificates issued by clients

5.3 **Tender fee:** The tender fee of Rs. 2,950/- (Rupees Two Thousand Nine Hundred and Fifty only), including applicable GST (non-refundable) shall be submitted through RTGS or through online payment as per details provided in clause no. 7 herein under. Demand Draft will not be accepted for Tender Fee.

5.4 **EMD:** The EMD of Rs Rs. 1,77,000/- (Rupees One Lakh Seventy seven Thousand only shall be accompanied in the form of DD/RTGS/online or irrevocable Bank Guarantee given by Bank as described in subsequent clause no. 7 herein under.

5.5 Bidder should have separate Employees Provident Fund code number towards registration of firm with RPF commissioner.

5.6 Attested copies of relevant documents duly signed & seal on each & every page shall be submitted. The above documents will be analyzed and after satisfaction, the Price Bid will be open. GIPCL may verify the documents, experience certificates issued by concern authority. After opening of technical Bid, if any required attested documents found missing in the Technical Bid submitted by the Bidder, the tender inviting authority may inform to that Bidder only once by E-mail to submit the missing required documents within stipulated time limit. If Bidder/Bidders fail to submit within stipulated time, their Bid will be declared technically disqualified and no further correspondence will be entertained.

5.7 Bidder should have minimum average annual turnover of **Rs.83.54 Lakh** for last three financial years (2023-24, 2024-25 & 2025-26). Bidder shall furnish annual audited financial statement duly certified by Chartered Accountant for the last three financial years to demonstrate the financial healthiness of the company. The Balance sheet must be in the name of the company. Any type of MOU for this purpose will not be entertained. (**Note:** In case, the annual turnover is less than the statutory guideline which does not require audit, the bidder shall submit the turnover certificate from Chartered Accountant).

5.8 The Bidder has to submit INCOME TAX Permanent Account Number (PAN) and GST registration number as applicable. Copies of the same shall be submitted.

5.9 The net worth of the bidder should be positive as evidenced from audited accounts of last financial year (2025-26), audited (or whereas per extant laws of the land audit is not applicable, certified) by a qualified Chartered Accountant who should be a member of the Institute of Chartered Accountants of India .

5.10 In case Bidder is a Consortium/Joint deed of undertaking of company, the above requirements/credential of consortium leader/bidder shall be considered unless otherwise specifically mentioned in the tender.

5.11 If Bidder or its Partner(s) or Director(s) is /are/was Black Listed / Deregistered / Stopped or banned from dealing in the past by any Govt, of Gujarat Undertakings / Depts. / Authorities and Govt. of Gujarat supported companies / undertakings / organizations, Bid of that party may be liable to be rejected. Bidder agrees and undertakes to accept decision of GIPCL in this regards as final and binding on the Bidder without any demur and that no further correspondence shall be done in this regard at any stage. Bidder shall have to submit "Declaration for Contractual Litigations" as amended in Annexure-H in Section-F / Form attached.

5.12 Bidder shall have to submit the "Declaration-cum-Undertaking for Compliance of Safety Laws and Regulations" as amended in Annexure-G in Section-F / Form attached.

- If any Major Violation of any safety law(s) / Rule(s) is / are found during the preceding Three (3) years, Bid of that party will be liable to be rejected. Bidder agrees and undertakes to accept decision of GIPCL in this regards

as final and binding on the Bidder without any demur and that no further correspondence shall be done in this regard at any stage.

- If any of the details submitted in the prescribed Annexure-G & H in Section-F / Form to the Bid is/are found to be false, incorrect at any time in future, then the Contract awarded to that Bidder / Contractor shall be liable to be terminated forthwith without any notice / correspondence and Bidder agrees and undertakes to accept decision of GIPCL in this regards as final and binding on the Bidder without any demur and that no further correspondence shall be done in this regard at any stage. Further, Performance / Security Deposit will also be liable to be forfeited. Any dues to GIPCL from the Bidder / Contractor shall be recovered from the pending bills or any other dues payable to the Bidder / Contractor, if any or otherwise through any other recourse available under the Laws.

The Bidder shall submit all the evidences, documents, attested copies of work orders & work completion certificates etc… as a proof with EMD & Tender Fee and also provide the requisite details online for meeting the prequalification requirements. GIPCL will verify the experience, performance, capability & strength of Bidders, independently for executing the job. GIPCL may visit the site & consult the owner of the industry/property where similar job is executed by the Bidder. GIPCL reserves the right to accept/cancel/reject any/all Bids without assigning any reason thereof. The tenders of qualified Bidder/Bidders shall only be considered for further evaluation.

6. LANGUAGE OF BID

The Bid prepared by the Bidder and all correspondence & documents relating to the Bid exchanged by the Bidder & the Company, shall be written in the English language. Any printed literature furnished by the Bidder, written in another language shall be accompanied by an English translation for the purpose of interpretation of the Bid.

7. EARNEST MONEY DEPOSIT (EMD) AND TENDER FEE

7.1 An EMD of Rs. 1,77,000/- (Rupees One Lakh Seventy seven Thousand only) and Non-refundable Tender fee Rs.2,950/- (Rupees Two Thousand Nine Hundred fifty only) shall accompany with Bid. **Tender fee shall be submitted through RTGS / online mode of payment only**

7.2 The EMD shall be submitted in the form of DD/irrevocable Bank Guarantee in favor of "Gujarat Industries Power Company Limited" from all Nationalized Banks or Axis Bank, ICICI Bank, HDFC Bank, Kotak Mahindra Bank, IndusInd Bank, Federal Bank, Bandhan Bank, IDBI Bank and Karur Vysya Bank as per Performa of BG enclosed with this tender document under Section-F (Annexure-C).

Bank for EMD DD	**Payable at :**
1. Bank of Baroda	Mosali, Dist: Surat
2. State Bank of India	Nani Naroli, Branch Code: 13423
3. Any Nationalized banks	Surat

Alternatively, EMD & Tender Fee may also be submitted through RTGS mode of payment by the bidders as per the details given below:-

RTGS detail:

1. BANK NAME:- **State Bank of India**
2. BRANCH:- **Nani Naroli**
3. IFSC CODE:- **SBIN0013423**
4. BENEFICIARY NAME: **Gujarat Industries Power Company Limited**
5. A/C No.- **33514692834**

Also, EMD & Tender fee may be submitted through online payment gateway of company's website: www.gipcl.com (online Payment Form) as per detail provided in Section-F (Annexure-I) herein under.

7.3 In case EMD is paid in the form of BG, the same shall be valid for a period of 180 days after the due date for submission of the bid

7.4 The EMD of the successful bidder will be returned after payment of Security Deposit by successful bidder.

7.5 The earnest money deposit will be refunded to the unsuccessful/disqualified BIDDER after the tender is finalized and after award of LOI/Work Order.

7.6 Any bid not accompanied with EMD and Tender fee will be rejected. Tender fees shall be submitted through RTGS (detail of RTGS shall be provided with physical documents) and EMD should be submitted in physical form directly to GIPCL as per Clause 8.9.

7.7 No interest shall be payable on EMD.

7.8 The EMD will be forfeited if the BIDDER (i) withdraws his tender after acceptance or (ii) withdraws his tender before the validity date of the tender.

7.9 SUBMISSION OF EMD & OTHER SUPPORTING DOCUMENTS

Details/receipts of EMD & Tender fee paid by RTGS/online or EMD in physical form by way of DD/BG (as applicable) with other documents duly signed to be submitted in physical form in sealed cover **as per details mentioned in NIT. Bid No. shall be mentioned at the top of cover/envelope.**	Address for Submission: **Chief General Manager (Thermal)** **GUJARAT INDUSTRIES POWER CO. LTD.,** **(Surat Lignite Power Plant)** **Village: Nani Naroli, Taluka: Mangrol, District: Surat. PIN: 394 110, Gujarat. Phone : 02629-261063** **EMAIL: rbsoni@gipcl.com.**

8. SUBMISSION OF BIDS

A: MODE OF SUBMISSION

The bids shall be submitted online through website: https://tender.nprocure.com or https://gipcltender.nprocure.com within the dates specified in the NIT along with the details of tender fees, EMD in two parts as under:

(a) Pre qualification and Techno-commercial Bid without price.
(b) Price Bid.

Note: Tender fee RTGS details and EMD shall be submitted in physical form as per NIT.

(a) Pre qualification and Techno-commercial Bid without price:

The tender document duly signed in all pages without price bid along with techno-commercial deviations, if any, shall accompany the bid. The following Information shall be provided in the techno commercial bid:

1. Qualification and experience of site-in-charge.
2. Schedule of deviation (Annexure-F in Section-F) Technical as well as commercial, if any.
3. Qualification & experience of Supervisors/Engineers.

The following supporting documents shall also be submitted along with EMD DD/BG & Tender Fee RTGS detail in physical form:

1. The tender documents dully signed in all pages without price bid along with techno-commercial deviations, if any.
2. Proof of experience meeting the minimum eligibility criteria
3. Performance certificate issued by clients.
4. Previous work order copies.
5. Details of present work order (if any)
6. Turnover for the last three years, audited annual accounts/financial statements i.e. profit and loss account and balance sheet duly certified by a practicing CA will be required or certificate from certified chartered accountant as the case may be.
7. P.F. Number and Allotment Letter.
8. PAN Number.
9. **GSTIN number/certificate copy.**
10. User ID for e-reverse auction on website: https://e-auction.nprocure.com

(b) Price Bid:

Percentage Rate Price Bid shall be submitted only in soft form through e- portal system.

Note: Estimated SOR includes cost of all manpower, GIPCL approved make & quality materials, supervision, insurance, equipments, vehicles, consumables, tools & tackles, transportation, Safety, legal & statutory compliance, mobilization-demobilization, all taxes & duties (Including GST) etc... . Price Bid shall be submitted only in soft form through e- portal system.

Total Estimated SoR Amount is including GST by considering present GST rate @18%.

The contractor shall comply with all statutory and legal requirements, including labour laws (minimum wages, EPF, ESI, bonus, etc… as applicable), safety regulations, and environmental norms. All applicable taxes and duties, including GST, are deemed included. The total estimated SoR amount is inclusive of GST, considered at the current rate of 18%. However, GST must be shown separately in invoices, and any change in rate shall be adjusted at actuals upon submission of valid proof.

1. The bidder’s percentage (%) offer shall be based on the **Total Estimated Amount, inclusive of GST**. However, at the time of billing, **GST shall be shown separately** in the invoice, with reverse calculation as per prevailing GST laws. The applicable GST rate shall be charged at actuals, subject to submission of valid documentary evidence, in line with the rates notified by the Central Government.

   All **legal and statutory compliances** including but not limited to **royalties, rents, stamp duties, taxes, levies** (Central, State, Local or Municipal) and **GST as applicable**, or any other duties/taxes imposed by public bodies shall also be deemed included.

2. Moreover, the quoted price must factor in all **overheads, profit**, and any other incidental costs that may not be explicitly mentioned but are necessary for the **satisfactory, safe, and timely completion** of the scope of work as per the specifications detailed in the tender.
3. The bidder shall quote the rates in the form of a **percentage (%)** as follows: “**At Estimated Value**” or “_____ **% below the Estimated Value**” or “_____ **% above the Estimated Value**”.
4. The quantities indicated in the Schedule of Rates (SoR) under Section-E are **tentative and based on preliminary estimation**. These quantities are subject to variation during actual execution, depending on site conditions and final recognition of treated area as directed by GIPCL Engineer.
   The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.
5. The quoted rate/offer shall remain firm and fixed throughout the contract period and any extension thereof, if required, for completion of the entire scope of work. The rates shall not be subject to any escalation or adjustment on any account, including but not limited to increases in the cost of materials, fuels, statutory levies, Minimum Wage Rates (MWR), overheads, idle charges for labour or machinery, or any other unforeseen expenses. No escalation or compensation shall be payable to the contractor for any such revisions or changes during the contract period / till completion of entire scope of work.
6. The accepted / work order rates shall be firm for entire contract period and also during extension, if required, to complete entire scope of work and shall not be subject to any escalation in price, idle charges for labour, machinery, overhead expenses etc.
7. There will not be any escalation/compensation to the contractor against any revision in either MWR (Minimum Wage Rates) or revision in material prices or whatsoever.
8. Contractor shall not pay less than the Minimum Wages notified by the Government from time to time to his employees of corresponding category.
9. Contractor shall at his expense comply with all labour and industrial laws and such other acts and status as may be applicable to this contract in respect to pay etc. On account of any default in respect of all liabilities and in case of non-compliance of the above, the company can withhold their payments till all legal liabilities are discharged.
10. Contractor shall deploy labour/workers & supervisors in sufficient numbers to ensure proportionate progress and quality workmanship of the degree specified in this contract and to the satisfaction of the Company.
11. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.

B: METHOD OF TENDERING/SIGNATURE ON BIDS

(i) The Bid must contain the postal address like name, residence & place of business of the person/persons submitting the Bid and must be signed & sealed by Bidder with his usual signature. The name of all persons signing the documents shall also be typed or printed below the signature on each page.
(ii) Bid by a joint venture/partnership firm must be furnished with full names of all partners and be signed with the partnership name, followed by the signature and designation of one of the authorized partners or other authorized representative(s). A certified copy of the power of attorney authorizing such partner or representative shall also be submitted.
(iii) Bids by a Corporation/Company must be signed with the legal name of the Corporation/Company i.e by the President/Managing Director/Secretary or other person or persons authorized to Bid on behalf of such Corporation/Company. A certified copy of the board resolution/power of attorney authorizing such partner or representative shall also be submitted.
(iv) The Bidder's name stated on the proposal shall be the exact legal name of the firm.
(v) Erasures or other changes in the Bid Documents shall be initialed by the person signing the Bid.
(vi) Bids not conforming to the above requirements of signing shall be disqualified.

9. MODIFICATION AND WITHDRAWAL OF BIDS

a. The Bidder may modify or withdraw the bid prior to the deadline prescribed for submission of bids.
b. No Bid shall be modified subsequent to the deadline for submission of Bids.
c. No Bid shall be withdrawn in the interval between the deadline for submission of Bids and the expiration of the period of bid validity.

10. POLICY FOR BIDS UNDER CONSIDERATION

a. Bid shall be deemed to be under consideration immediately after opening of the bid and till official intimation of award/rejection made by the Company to the Bidders.
b. While the Bids are under consideration, Bidders and / or their representative or other interested parties are advised to refrain from contacting by any means, the Company. The Engineer, if necessary, will obtain clarifications on the Bids by requesting for such information from any or all the Bidders, in writing as may be necessary. The Bidder will not be permitted to change the price or substance of the Bid after the Bid has been opened.

11. EFFECT AND VALIDITY OF THE BID

a. The Bid should be kept valid for acceptance for a period of one hundred and eighty (180) calendar days from the last date of submission of Bids.
b. The submission of any Bid along with the required documents and specifications shall constitute an agreement that the Bidder shall have no cause of action or claim, against the Company for rejection of his Bid. The Company shall always be at liberty to reject or accept any Bid or Bids at his sole discretion and any action will not be called into question and the Bidder shall have no claim in that regard against the GIPCL.

12. OPENING OF BIDS

12.1 The GIPCL will open the pre-qualification/Technical Bid/price Bid, as the case may be, in presence of Bidder's representatives whenever such a procedure has been specified. Otherwise the tender will be opened by the authorized officers of GIPCL.

12.2 **Preliminary Examination:**

12.2.1 The Company will examine the Bids for any computational errors, for sureties furnished by bidder, for authentication of documents submitted and completeness of the Bids.

12.2.2 Arithmetical errors will be rectified on the following basis:

(a) 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 will be corrected & will be binding to the bidders.

(b) If there is a discrepancy between the Total Bid Amount and the sum of total prices, the sum of total prices shall prevail and the Total Bid Amount will be corrected & will be binding to the bidders.

13. EVALUATION & COMPARISON OF BIDS

13.1 GIPCL shall evaluate the Bids received and accepted by it to ascertain the lowest evaluated Bid in conformity with the specifications of the tender documents.

13.2 The Technical Bids will be examined for minor matters regarding qualification of bids. Subsequent to correspondence with the respective bidders, the decision of Tender Committee will be final.

13.3 All responses to requests for clarifications shall be in writing and shall be presented to the Company through e-mail or in a sealed envelope on or before the given date requested by the Company. If the Technical clarifications sought by the Company do not reach the Company on or before due date, the Bid will be rejected.

13.4 The comparison of all the Bids shall be carried out with reference to the scope of work as per the technical specification. Any deviation/omission shall be evaluated at highest quoted price of the deviation/omission quoted by any of the Bidder. In case a separate price (for omission) is not given by any other Bidder, a reasonable price of the same shall be taken & the same shall be binding to the Bidders.

13.5 The commercial deviation, if any, shall be loaded to bring all the Bids at par. The loading shall be carried out at an interest rate of 2% above PLR of SBI.

13.6 A Bid to be substantially responsive shall be one which on evaluation confirms to all the terms, conditions and specifications of the Bid documents without any material deviation or reservation.

13.7 For the above referred purpose, a 'material deviation' shall be one which:

(a) Which affects in any substantial way the scope, quality or performance of the contract, or

(b) Which limits in any substantial way and in a manner inconsistent with the Bid documents, GIPCL's right or the Bidder's obligations, under the contract, or

(c) Whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

14. RIGHT OF REJECTION OF TENDERS

15.1 GIPCL reserves the right to accept or reject any Bid or to cancel the Bidding process and reject all Bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders regarding the same.

15.2 Any Tender without EMD and Tender fee will be treated as non-responsive and shall be rejected at the outset & no further correspondence shall be entertained regarding this.

15.3 GIPCL reserves the right to debar any Bidder from participation in future Bids if such Bidder has quoted an abnormally low rate in the Bid document/price Bid.

15. AWARD OF CONTRACT

16.1 GIPCL will award the contract to that bidder whose quotation has been determined to be substantially responsive and evaluated as the lowest quotation in conformity with the requirements of the specifications and documents contained herein, provided further that the bidder is determined and evaluated to be qualified to perform the contract satisfactorily.

16.2 The successful bidder shall be intimated of his selection through the Letter of Intent or Letter of Award/ Work Order which shall be sent to him through e-mail, courier, fax or registered mail.

16. CONTRACT PERIOD

17.1 The contract / completion period for scope of works shall be 0*6* (*six*) months from the date of issuance of the Letter of Intent (LoI) and/or Work Order, whichever is earlier (except monsoon season from 1st June to 30th September) as stated in the Special Conditions of Contract ('Contract Period').

17.2 GIPCL reserves the right to extend the contract period by up to an additional **03 (three) months** on the same rates, terms, and conditions, without any price escalation and without entering into a new contract on sole discretion of GIPCL only. However, delay attribute to contractor beyond above schedules will attracts penalty as LD (Liquidated Damages) as per specific clause mentioned in Special Conditions of Contract (Section-D).

17.3 If the scope of work is not completed by the Contractor, necessary LD will be deducted as per specific clause mentioned in Special Conditions of Contract (Section-D) and in the interest of work completion, GIPCL will extend the contract period appropriately (along with deduction of LD) as per contract requirement on the same rates, terms, and conditions without any price escalation or new contract on sole discretion of GIPCL.

GIPCL reserves the right to short-close the contract at any time by giving **01 (one) months' notice**, without assigning any reason.

17. ASSIGNMENT AND SUB-LETTING

The Contractor shall not directly or indirectly assign or sub-let total/any part of the contract to any other party or agency.

18. CONTRACTOR'S OBLIGATIONS

A: DEPLOYMENT & RESPONSIBILITY OF MANPOWER

(i) The Contractor shall deploy suitably qualified and sufficient manpower for timely & satisfactorily execution of the works under the contract.
(ii) The Contractor shall deploy sufficient skilled, Semi-skilled and Un-skilled manpower to properly complete the job in given/scheduled time.
(iii) The Contractor shall depute its own workmen/labor with proper identification to enter the plant premises after ensuring that the jobs are scheduled.
(iv) At the time of deploying manpower, the Contractor shall strictly comply all the applicable labor laws/Acts norms including but not restricted to the age of the workers, women workers and shall also ensure that a police verification, security check, pre-employment medical fitness check-ups & induction safety training for all the workmen/labor engaged at the GIPCL site is done and necessary documents regarding the same shall be submitted to the GIPCL’s authorized representative/officer-in-charge. Any default in complying with the same or any misrepresentation regarding compliance of the same shall compel GIPCL to initiate appropriate civil or criminal proceedings regarding the same.
(v) The Contractor shall also comply with the safety requirements and provide his workmen/labor with safety equipment like safety helmets, dust masks, gum shoes/safety shoes, uniform and other necessary PPEs for properly undertaking the operations involved under this contract. Following are also to be issued:
    a) Safety shoes (standard approved ISI make in yellow colour only) and/or gum shoes based on day to day requirements.
    b) Safety Goggles / face shield.
    c) Ear plug / Ear muff, standard dust mask.
    d) Hand gloves like electrical hand gloves / cotton hand gloves / Chemical hand gloves.
(vi) Contractor shall nominate /authorize senior experienced person in writing as Site-In-Charge to co-ordinate with concern GIPCL engineers and who shall bear overall responsibility for performance of the contract. Such person shall remain always available at site. Contractor has to submit the authority letter and documentary proof for the same.
(vii) The Contractor shall appoint supervisor who shall co-ordinate with GIPCL’s Engineer-In-Charge for daily entrusted job. They have to maintain daily records dully signed for the works carried out and duly certified by Engineer-In-Charge. The Contractor in co-ordination with the Engineer-In-Charge shall ensure the availability of adequate manpower to carry out the job satisfactorily on a daily basis. As per the instruction of Engineer-In-Charge they have to allot the work and execute the same in specified time limit.
(viii) During execution of the works, one or more jobs may be required to be done simultaneously and the Contractor shall mobilize additional resources accordingly.
(ix) During emergency or similar situations the Contractor shall be required to mobilize resources as per need within the period of 04 hours as directed by GIPCL. If the contractor fails to mobilize sufficient manpower to complete the job in time, GIPCL will execute the job through other agency at the risk and cost of the contractor with 10% supervision charges & the same will be recovered from the Contractor’s bill.
(x) Important Note: Whenever any of the Unit at SLPP remains under outage due to any reason and require to enhance the work force at site to utilize the opportunity, the contractor shall mobilize sufficient work force at site within a period of twelve hours from the time of intimation to the site-in-charge or via mail to your office**.**
(xi) During unit overhauling, the contractor has to enhance the site manpower as per the requirement to ensure the timely completion of work (During overhauling period quantum of work increases substantially). For this, enhanced work shall

be completed by deploying additional manpower with separate supervisor. Payment will be made on item rate basis only. The work during the overhauling period is to be carried out round the clock. Contractor should mobilize sufficient number of manpower and execute the work in all shifts with independent manpower. Contractor should not continue the same manpower for more than 12 hours.

B: EQUIPMENTS AND TOOLS & TACKLES:

All standard tools & tackles and equipments (including as specified in Annexure-E of Section-F) required to execute the contract are in the scope of the contractor. The contractor should ensure that tools & tackles are in healthy & working condition. All consumable items would be in the scope of the contractor **(Note: If work is suffered due to want of sufficient manpower, tools & tackles, vehicles, equipments and/or required consumables/materials then 25% of the total job cost plus applicable GST as per extant GST Laws & other taxes & duties as per applicable extant laws will be levied as a penalty for each and every instance).**

(i) For proper execution of the work as per the scope, the contractor is required to maintain sufficient quantity of tools & tackles, equipments, standard safety PPEs, standard MS scaffolding materials in good working condition at site as per day to day work load and emergency situations to complete the work in stipulated time.

(ii) In case of breakdown of equipment, the contractor should work round the clock for putting back the area in service immediately within minimum time. In case of any emergency arising during night hours the contractor should be in a position to mobilize the manpower immediately within minimum time.

(iii) Arrangement for lighting at the work spot has to be made by the contractor. He has to arrange all lighting equipment such as power cable, hand lamps. The contractor has to take prior approval for taking electrical power supply. The contractor should keep hand lamps of 24Volt for confined space and sufficient quantity of 240 Volt halogen lamp for other area ensuring safety at work place

(iv) Pin sockets of IS standards should be used for all connections. For any accident take place & any damage to the equipment and/or injury to human due to carelessness in loose connection, contractors will be held responsible & liable for any recovery/actions.

19. CLARIFICATION OF BIDDING DOCUMENTS

If any Bidder requires any further information or clarification in the Bidding Documents, may notify the Company before one week of last date of submission of online Bid, in writing or by E-mail at the GIPCL's mailing address rbsoni@gipcl.com as indicated in the 'Invitation to Bids'. The GIPCL's response (including an explanation of the query) will be sent in writing or by E-mail to all prospective Bidders who have received the Bidding Documents.

20. TIME SCHEDULE

The basic considerations and the essence of the 'Contract' shall be the strict adherence to the time schedule for performing the specified 'Works'.

21. UNDERSTANDING AND CLARIFICATION ON DOCUMENTS AND SPECIFICATION

The Bidder is required to carefully examine the specifications and documents, all the conditions and matters work wise & cost wise. If any Bidder finds any discrepancies or omissions in the specifications and documents or is in doubt for any meaning of any part, he shall request in writing for an interpretation/ clarification to the GIPCL.

All such interpretations and clarifications shall form a part of the Bid documents

22. PAYMENTS

All the payments against the work order shall be in Indian currency and payable through RTGS (online payment) system only based on submission of required documents like bank mandate form with original cancelled cheque.

23. POINTS TO BE CONSIDERED DURING QUOTING ONLINE PRICE BID

a. The schedule of rates shall be read in conjunction with Instructions to Bidders, General conditions of contract, Special conditions of contract and Technical specifications.
b. The quantities given in the schedule of rates are estimated and will be made as per actual work carried out as per the rates of work order.
c. The method of measurement of completed work for payment shall be in accordance with the method of measurement specified in the Special Conditions of Contract.
d. No separate amount shall be payable for use of auxiliary equipment incidental to or in day to day operation in the course of fulfillment of contractual obligation of the supplier.

Note: Interested bidders are requested to submit the online tender at least two days in advance from the due date set for online submission of bid in order to avoid non participation of e-tender due to probable technical problem in e-tender system.

24. QUANTITIES

The quantities specified are estimated and for tendering purpose only. Payment will be made, based on actual work done as jointly measured at site, as per approved methodology of measurement & certified by Engineer-in-charge of GIPCL. However, contractor shall be responsible to restrict the scope of work and not exceed beyond the provided quantities under specified items of given packages or beyond package cost without prior written consent of GIPCL. In any case, GIPCL will not pay for any additional quantity due to any reason except if advance written consent taken by the contractor from GIPCL to execute additional quantities.

Quantities of individual items may be revised during the course of contract period based on site requirement. Contractor shall not be entitled for any compensation on ground of such alteration in individual quantities. GIPCL reserves the right to operate or increase/decrease quantities in each item or omit any item included in Schedule of Quantity at its discretion. Quantity of individual item of SoR package may vary to any extent. However, contract value per package will be remained firm. Contractor shall have no claim, whatsoever, on grounds of loss of anticipated profit etc. on account of the same.

After commencement of the work, GIPCL, for any reason may not require to be carried out the whole/part of the work as specified in the tender, the Engineer-in-charge shall inform the fact for thereof to the CONTRACTOR and contractor shall have no claim for any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out nor shall he have any claim for compensation by reason of any change having been made in the original specifications and instructions which shall involve any curtailment of the work as originally contemplated.

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SECTION-B
INSTRUCTIONS TO BIDDERS FOR ONLINE TENDERING & E-REVERSE AUCTION

SR. NO.	DESCRIPTION
1.	Tender documents are available only in electronic format and same can be downloaded from the website: https://tender.nprocure.com or https://gipcltender.nprocure.com and It can also be viewed from Company's website www.gipcl.com
2.	Price bid should be submitted online through the website https://gipcltender.nprocure.com only. No physical submission of price bid will be entertained as it should be furnished on-line only
3.	Bidders who wish to participate in online tenders will have to procure / should have legally valid Digital Certificate (Class III) as per Information Technology Act-2000, using which they can sign their electronic bids. Bidders can procure the same from any of the license certifying Authority of India or can contact (n)code solutions- a division of GNFC Limited, who are licensed Certifying Authority by Government of India
4.	All bids should be digitally signed. The bidders are required to contact at the below mentioned address for detailed training on on-line tendering and also for requirement. (n) Code Solutions - A division of GNFC Ltd. 403, GNFC Info tower, S.G Road, Bodakdev, Ahmedabad – 380054 (Gujarat, India). Toll Free: **7359021663** Tel: 079-26857315/316/317 E-mail: nprocure@ncode.in, website: https://tender.nprocure.com

Interested bidders are requested to submit the online tender at least two days in advance from the due date set for online submission of bid in order to avoid non-participation in case of any technical issues (website and/or network) at last moments.

E-REVERSE AUCTION:

i. GIPCL reserves the right to conduct E-Reverse auction through (n) Procure platform.
ii. E-Reverse auction shall be conducted amongst (a) the lowest 50% eligible bidders (rounded to the next higher whole number) from the total bids received OR (b) Minimum three (03) lowest bidders, whichever is higher, shall be invited for participation in e-Reverse Auction through n-procure platform.
iii. Opening Price (including GST), Decrement value and duration for the e-Reverse Auction shall be informed to the qualified bidders before start of e-Reverse Auction.
iv. After e-Reverse Auction process, L1 bidder shall be decided on Lowest Total Contract Price (including GST).

v. To participate in e-Reverse Auction, Bidders have to create e-Auction USER ID on website: **https://e-auction.nprocure.com** that the bidder shall be allowed to participate the e-Reverse Auction.

vi. In case of any further information regarding online bidding or if a Bidder needs any assistance in accessing/ submission of online bid/ clarification or if training is required for participating in online e-reverse bidding, then the Bidder can contact the following office for assistance or training:

(n) Procure Cell, (n) code solutions-A division of GNFC Ltd.,
403, GNFC Info tower, S.G. Road,
Bodakdev Ahmedabad – 380054 (Gujarat)
Toll Free: **7359021663**
Phone No. 079-26857315 / 316 / 317,
Fax: 079-26857321 / 40007533, Email: nprocure@ncode.in

Bidder may visit https://tender.nprocure.com for information regarding e-tendering registration process.

SECTION-C
GENERAL CONDITIONS OF CONTRACT

1. CONTRACT SECURITY DEPOSIT (PERFORMANCE GUARANTEE)

1.1 PERFORMANCE BANK GUARANTEE (PBG)

As a Contract Security, the successful Bidder, to whom the work is awarded, shall be required to furnish a Performance Bank Guarantee (PBG)/Contract security deposit in favour of Gujarat Industries Power Company Limited for guarantee amount at five percent **(5%)** of the “Contract Price” from all Nationalized Banks or Axis Bank, ICICI Bank, HDFC Bank, Kotak Mahindra Bank, IndusInd Bank, Federal Bank, Bandhan Bank, IDBI Bank and Karur Vysya Bank in the format attached in **SECTION-F**, and it shall guarantee the faithful performance of the 'Contract' in accordance with the terms and conditions specified in these documents and specifications. The guarantee shall be valid up to Three years from the contract completion date. The Guarantee amount shall be payable to the Company in Bidder's home currency without any condition whatsoever.

Contract security deposit shall be submitted strictly within twenty one days from the date of LoI or work order, whichever is earlier. However, any delay in submission of initial SD will result in equivalent late release of entire SD after guarantee period

1.2 SECURITY DEPOSIT THROUGH DD OR CHEQUE

An additional cash security deposit at 05% of contract price shall be retained from the RA Bills.

The Security Deposit & Performance Bank Guarantee will be returned to the Vendor/Contractor without any interest at the end of the ‘Guarantee Period' after completion of contract, repairing of any defect noticed & informed during guarantee period and on fulfilling contractual obligations throughout the guarantee period as per following terms:-

(a) 02.50% of the security deposit amount shall be released after one year from the date of actual completion of work, subject to repairing of road/attending any defects observed during that particular period by contractor based on information/communication made by GIPCL.
(b) Another 02.50% of the security deposit amount shall be released after two years from the date of actual completion of work, subject to repairing of road/attending any defects observed during that particular period by contractor based on information/communication made by GIPCL.
(c) Final balance 05% of the security deposit (PBG) shall be released after three years from the date of actual completion of work, subject to repairing of road/attending any defects observed during that particular period by contractor based on information/communication made by GIPCL.

However, any delay in submission of initial SD (PBG) and/or delay in attending the defect/repair beyond 07 days of information/communication made by GIPCL will result in equivalent late release of such SD after above periods.

GIPCL reserves the right to forfeit Performance Bank Guarantee (PBG)/Contract security deposit. Bid security/EMD should be refunded to the successful bidder on receipt of Performance Security.

2. RECOVERY CLAUSE

(i) In case of any damage of equipment/machinery due to negligence of contractor or any other reasons attributed to contractor the decision of Engineer-in-charge regarding the amount of recovery shall be final and binding subject to a maximum of 10% of contract value plus applicable GST as per extant GST laws & other taxes & duties as per applicable extant laws. Recovery will be affected from the monthly bills and/or retention money/security deposit

(ii) If the contractor fails to execute the work as per directions of Engineer (I/c) within the time frame given in work order and as per day to day instructions by Engineer-in-charge, GIPCL shall get the work done by third party at the risk & cost of the contractor with 10% additional overhead charges of GIPCL, plus applicable GST as per extant GST laws & other taxes & duties as per applicable extant laws.

3. ASSIGNMENT AND SUBLATING OF THE CONTRACT

The Contractor shall not assign or sublet any part of the contract to any other party or agency without written permission from GIPCL.

4. DEDUCTIONS FROM CONTRACT PRICE

All costs, charges or expenses that GIPCL may have paid, for which, under the contract the contractor is liable, shall be recovered by the GIPCL. The contractor shall pay all such claims within 15 days of claim, failing which the same shall be deducted from the bills of contractor.

5. TERMINATION OF CONTRACT BY GIPCL

Contractor shall be responsible to complete the jobs within agreed time schedule and in case contractor fail to complete the job, GIPCL shall recover from his bill, Security Deposit and / or whatsoever for expenses incurred to complete the job with additional 10% overhead charges, including GST.
In case if contractor's services are not found satisfactory with respect to timely mobilization to meet emergency requirements, time bound activities, workmanship & safety (OH&S policy of GIPCL) then GIPCL has right to terminate the contract at any time by giving 15 days advance notice without assigning any reason and will make the alternate arrangement at the risk & cost of contractor.

GIPCL may terminate the contract after due recoveries of pending jobs/damages after giving 15 days advance notice to the contractor if any of the following events occur –

i. Contractor is adjudged as insolvent.
ii. Contractor has abandoned the contract.
iii. Contractor fails to proceed with the work with due diligence as per requirements of the contract.

iv. Contractor has neglected or failed persistently to observe or perform any of the acts, matters or things, which as per the contract are to be observed and performed by the contractor.
v. Contractor repetitively violating the safety norms for more than three incidents.
vi. Any major contradiction of applicable labour laws.
vii. Any major deviations from contractual terms and conditions including quality of job.
viii. GIPCL reserves the right to terminate the contract without giving any reason whatsoever and forfeit the PBG.

6. FAILURE & TERMINATION

If the CONTRACTOR after receipt of written notice from the GIPCL/ ENGINEER requiring compliance, with such further drawings and / or the GIPCL /ENGINEER instructions fails within seven days to comply with the same, the GIPCL /ENGINEER may employ and pay other agencies to execute any such work whatsoever as may be necessary to give effect thereto and all costs incurred in connection therewith shall be recoverable from the CONTRACTOR by the GIPCL on a certificate by the GIPCL/ENGINEER as a debt or may be deducted by him/her from any money due or to become due to the CONTRACTOR.

If the contractor fails to execute the work or fails to mobilize the resources and equipments as per directions of GIPCL / ENGINEER within the time frame given and/or violating the GIPCL's safety rules & regulations, ENGINEER/ GIPCL shall get the work done by third party at the risk & cost of the CONTRACTOR with additional 10% overhead charges of GIPCL, including GST and all costs incurred in connection therewith shall be recoverable from the CONTRACTOR by the GIPCL /ENGINEER as a debt or may be deducted by him from any money due or to become due to the CONTRACTOR.

7. SETTLEMENT OF DISPUTES

a. Any disputes or difference of opinion between parties arising out of the contract to the extent possible shall be settled amicably between the parties. If amicable settlement cannot be reached all the disputed issues shall be resolved through arbitration before a Sole Arbitrator appointed by Managing Director, GIPCL according to the provisions of The Arbitration and Conciliation (Amendment) Act, 2019, as amended from time to time. The place of arbitration shall be at Vadodara/ Surat or any other place within state of Gujarat.
b. Work under the contract shall be continued by the contractor during arbitration proceedings unless GIPCL shall order suspension thereof or any part thereof in writing or unless the matter in such work cannot possibly be continued unless the decision of the Arbitration proceedings is obtained.

8. INTERPRETATION OF CLAUSE

In case of disputes as regards interpretation of any of the clauses or specification, the decision of Chief General Manager (Thermal) will be final and binding on the contractor.

9. EMPLOYEE'S COMPENSATION INSURANCE

Contractor shall take all risk Insurance Policy to cover all his workmen/employees, staff applicable under the Employee Compensation Act 1923 or any amendment thereof as also insurance cover for third party liability. The contractor shall keep the GIPCL indemnified from all liabilities arising out of his action in pursuance of this contract. The E. C. Policy should be obtained from Surat Jurisdiction and shall be assigned to GIPCL. EC policy should cover the specified contract period.

10. STATUTORY REQUIREMENTS SHALL BE ADHERED AS APPLICABLE

a. COMPLIANCE OF LABOUR LAWS

The contractor shall at his own cost comply with the provision of labour laws, rules, orders and notifications whether central or state or local as applicable to him or to this contract from time to time. These Acts/Rules include without limitation the followings.

1. Contractor shall be solely responsible and shall fully comply with all the provisions of all the labour laws applicable such as the Minimum Wages Act, 1948, Contract Labour (Regulation & Abolition) Act 1970, Factories Act, 1948, Payment of Bonus Act 1965, Employees Provident Fund and Miscellaneous Provision Act 1952, Industrial Dispute Act 1947, Workmen Compensation Act 1923, Payment of Gratuity 1972, Interstate Migrant Workmen Act 1979, Equal Remuneration Act with Rules, Order and Notifications issued/made there under and as amended from time to time.
2. All other Acts, Rules/Bye-Laws, Orders, Notifications etc. present or future applicable to the contractor from time to time for performing the contract job.

2.1. The Contractor shall provide and be responsible for payment of Wages, Salaries, Bonus, Social charges, Insurance, Food, Accommodation, Transport, Medical and Canteen facilities and other statutory privileges and facilities to his personnel as per law/rules/regulations and orders of the Central Government, State Government, Local Authorities or other authorities as are in force from time to time. All employees of the Contractor shall be employee of the Contractor.

2.2. The contractor shall have a valid license obtained from Licensing Authority under the Contract Labour (Regulation & Abolition) Act,1970 as amended from time to time at the time of execution of the contract covering all his employees working at SLPP site and furnish the same failing which GIPCL may terminate the contract at its sole discretion.

2.3. The Contractor shall at the time of execution of the contract have a EPF Code Number obtained from the Authorities concerned under the Employees Provident & Miscellaneous Provisions Act, 1952, as amended from time to time and remit contributions in respect of the employees employed by him at SLPP Site to the P.F office concerned every month failing which GIPCL will recover from the outstanding payment to the contractor from GIPCL.PF code of Gujarat region should be taken.

2.4. The Contractor shall maintain all records/registers required to be maintained by him under various labour laws mentioned above and produce the same before the Statutory Authorities whenever required.

2.5. The Contractor shall also submit periodical reports / returns to the various statutory authorities such as those under the Contract Labour (Regulation & Abolition) Act-1970, Employees Provident Fund Act, as amended from time to time, etc., under intimation to HR & Admn. Dept.

2.6. The Contractor shall not pay less than the Minimum Wages notified by the Government from time to time to his employees of corresponding categories.

2.7. The Contractor shall be responsible for payment of overtime wages to his workmen, if any, in case they are required to work beyond the prescribed hours under law as per applicable rates.
2.8. The contractor shall take Workmen Compensation Insurance Policy for all his employees working at GIPCL. The contractor shall indemnify the company against any liability due to any work injury or accident to any of its employees.
2.9. The Contractor shall in the event any of his workmen / employee sustains any injury or disablement due to an accident arising out of and in the course of his employment, provide necessary medical treatment and pay compensation as applicable, required under the Workmen’s Compensation Act, 1923 as amended from time to time.
2.10. If any of the persons engaged by the Contractor misbehave with any of the officials or the Company or commit any misconduct with regard to the property of the Company or suffer from any serious communicable disease, the Contractor shall replace them immediately.
2.11. The Contractor shall not engage / employ persons below the age of 18 years. Employment of women shall be strictly according to applicable laws.
2.12. GIPCL will have right to deduct and disburse the claims of the individual / parties being a principal employer on any account whatsoever in relation to their employment with the contractor. The Security deposit will be released to the contractor at the end of the contractual tenure subject to an undertaking by the contractor that in the event any of his workmen or the heirs of workmen puts up a claim for recovery of money due to him from the contractor before the appropriate authority under the I.D.Act 1947 or under any other labour laws or for compensation under the Workmen’s Compensation Act, 1923 as amended from time to time and the appropriate authority has given a direction for making payment the contractor will meet the same or indemnify GIPCL if in the event GIPCL pays it as Principal Employer.
2.13. The contractor shall make payment of wages to his employees on fixed date within the period specified under the applicable Law, in presence of representative of the company. He will submit a true copy of wage sheet, attendance register and P.F. remitted challans on monthly basis to HR&A dept. for verification and record.
2.14. The Contractor shall provide Safety items / kits to his employees such as safety shoes, goggles, ear plugs, hand gloves, safety belts etc., if any, required under the law.
2.15. The contractor shall conduct pre-induction and periodic medical checkup of his workmen as per applicable laws.
2.16. The contractor shall be solely responsible for any accident caused to his workers and should adhere to all rules / regulations as per labour laws of Government and other statutory laws as applicable.
2.17. The contractor should register himself under the Contract Labour Act, Employee Compensation Act and PF Act, as amended from time to time (Code no. to be mentioned) and submit the copy of registration certificate and should possess the same from the date of commencement of work, failing which the contract is liable to be cancelled. The E.C. Policy copy should be submitted to the GIPCL before commencement of the work and Labour License should be obtained within one week from the date of issue of form-V. Contractor should apply for Form-V immediately after receipt of LOI. A copy of Labour License shall be submitted to GIPCL, HR & A Department.
2.18. Contractor shall have to insure his workmen /supervisors etc. under Group Insurance scheme.
2.19. The Contractor shall be responsible for compliance of all statutory rules, regulation, act enforced from time framed by the government such as Factory Act, Employee Compensation Act, payment of ‘Wages Act’, Minimum Wages Act’, Provident Fund

Act, All Labour Laws Act, as amended from time to time in respect of employees engaged by him for the work and shall have to maintain necessary records. In case any amount becomes due to be payable by him to his employees or to the Government under the above rules, regulation, Acts, GIPCL reserves the right to recover the same from the running bill of the contract.

2.20. Documentary evidence of deposit of PF paid shall have to be produced by the contractor along with the next bill.

2.21. Records as per the provisions of various statutory Acts will have to be maintained by the contractor and submitted as and when required.

2.22. All employees of contractor should maintain due discipline and respect local sentiments. GIPCL reserves the right to direct the contractor to remove any such person who does not comply with it.

2.23. The list is indicative in nature and not an exhaustive one. Any amendment/alteration/Notifications or addition to the existing Law or a new statute shall automatically and immediately become applicable.

All laws, rules, regulations, notifications, etc. stated in this tender document shall be applicable as amended from time to time. Where applicable self-certified true copies of the required documents to be furnished, unless stated otherwise explicitly.

b. LEGAL ASPECTS

1. Contractor shall maintain all register required under the Labour Laws and make the payment as per the Minimum Wages Act to the workers employed by him.
2. Contractor shall obtain requisite license to carry out this contract under the provisions of Contract Labour Act, 1970 and maintain necessary records and registers under the said Act.
3. Contractor shall submit a copy of each of the registration certificates with respect to Employees Provident Fund and Employee Compensation Act within one week time, from the date of award of this contract.
4. Contractor's employees, agent or sub-agent shall not smoke or light anything within the premises of the GIPCL and carry match box / lighter or any other explosive and /or inflammable material inside the plant.
5. Contractor shall abide by all the statutory rules and regulations like Labour Laws etc.
6. Contractor shall issue an appointment order to each casual labourer stating therein the nature of job to be performed by him and fix time for which the concerned labourers are likely to be deployed. Contractor shall also issue a temporary identity card specifying the period for which the labourer has been deployed.
7. Contractor is fully liable for the persons engaged by him for above work; however, GIPCL reserves the right to deduct any amount legally justified towards any liability not fulfilled.
8. Contractor shall indemnify GIPCL from any liabilities arising out of the employment of the manpower.
9. If the contractor fails to complete the allocated job within specified time frame, GIPCL shall get the work done by third party at the risk and cost of contractor.

11. PAYMENT OF WAGES

Contractor shall be responsible for compliance of all statutory rules, regulation, act enforced from time framed by the government such as Factory Act, Employee Compensation Act, payment of 'Wages Act', Minimum Wages Act', etc in respect of employees engaged by him for the work and shall have to maintain necessary records. In case any amount becomes due to be payable by him to his employees or

to the Government under the above rules, regulation, Acts, GIPCL shall keep hold the same till contractor submit evidences as desired by GIPCL in line of such acts.

12. ACCIDENT TO WORKMEN

Contractor shall be fully responsible for injury or death of any of your or third party workmen due to any act omission / indiscretion on your part while undertaking the work and contractor shall fully abide by the statutory requirements of the employee's compensation act. GIPCL shall not be liable for any compensation due to accident, death or injury to any of contractor's workmen or any third party due to negligence, act or omission on your part.

13. LIGHTING

General area lighting will be provided by GIPCL. However work area specific lighting should be arranged by contractor.

14. NIGHT/SUNDAY/HOLIDAY SHIFT

The contractor shall depute qualified and adequate resources in night shift/Sunday/holidays for any emergency job, which may come up at night/Sunday/holiday.

15. SAFETY ASPECT

Contractor shall observe all the safety and security rules and regulation of the GIPCL which are at present in force and which may come into force during the pendency of the contract. Any violation of any rules and regulations will entail immediate termination of the contract.

When contractor moves his lifting tools and tackles to the plant area, required test certificates as per the Factory Act 1948 and the state factories rules has to be submitted to safety Dept. Safety Dept. will check the certificates and if found okay, then only materials will be allowed to enter inside the plant. Material inward gate pass will be made only after certification from Safety Dept. Security Dept. will inform to Safety Dept., as & when such tools and tackles brought at the gate for making entry in the maintenance site.

The contractor has to submit the list of required safety gears along with safety equipments available with him to safety Dept. Safety Dept will check for quantity and quality of the safety gears and then allowed permission of work. Poor quality material will not be allowed to take inside the Plant. If quantity of required safety equipments is not satisfactory, contractor will not be allowed to carry out the work using such safety gears inside the Plant for the work.

16. GENERAL SAFETY CLAUSES

1. The Contractor shall observe and comply, with regard to his workmen working at the SLPP site, the safety norms as per the safety operating standards.
2. The Contractor shall ensure that his workmen are informed and trained regarding the safety standards to be adopted while operating within the SLPP Plant & Mines premises and the Contractor shall brief them regarding the same and use of the Personal Protective Equipment ('PPE').

3. The Contractor shall issue safety shoes and safety helmet of IS standard to all his workmen immediately on execution of the work and the contractor shall ensure that his workmen wears the protective equipments at all times during the work operation. Following brand of the safety shoes and helmet shall be issued to contract workmen. Contractor shall issue safety shoes every year.

Helmet :

Sr No.	Model	Company	Specifications
01.	Tough Hat, HP-TH	Sure Safety	IS : 2925 – 1984, ANSI / ISEA Z89.1-2009
02.	V-Gard	MSA	
03.	PN 521 - Shelmet	Karam	

Safety Shoes :

SR. No.	Name of Manufacturer	Model
1	Acme Fabrik Plast Co.	SSTEELE (Strom) – Double Density or TRIMAX(Adjacent) – Double Density
2	Favourite Safety Products.	Waves Nile D/D or FSP Nile DD

4. Other safety gears like ear plug, dust mask, hand gloves, safety goggles, gum boots, fall arrester, life line, full body safety uniform and belts, safety net etc. shall be issued and used as per the job requirements. Safety helmet shall be of YELLOW COLOUR ONLY. Contractor will procure safety shoes & safety helmet from a reputed company with at least 12 months' guarantee and shall produce the guarantee certificate and IS standard certificate to the safety department. Contractor should purchase safety shoes of reputed brands. Safety shoes will be issued every year. IS certificate and guarantee certificate must be obtained from the vendor and submitted to the Safety department. Safety shoes should be heat, water, oil and chemical resistant, having an anti-slippery sole of 15298- 2002 make.
5. It is the duty of contractor to ensure that his workmen are wearing required PPEs as per work requirement. Contractor should ensure that their workers are wearing Safety helmet, safety shoes, dust mask, goggles, ear plug etc. at all times when they are at work throughout the contract period. The contractor has to maintain the PPE issue registers with signature of workmen.
6. Contractor will reissue these PPEs in case of damage or misplacement of the same. Replacement shall be made immediately.
7. The contractor shall be responsible for providing first aid or emergency medical help and treatment to his workmen in the event of any accident or injury.
8. If it is observed that contractor is not issuing required PPEs timely and that of required quality, GIPCL will issue the required PPEs to contract workers and back charge the same with 25% overhead charges of GIPCL plus applicable GST as per extant GST Laws & other taxes & duties as per applicable extant laws.
9. All lifting tools and tackles shall be duly certified by competent person in conformity with the statutory requirements and certificate in form no. 10 as per rule 60 of Gujarat Factories Rules, 1963 and section 29 of the Factories Act, 1948 shall be submitted every year before using such tools and tackles. In case of purchase of new lifting tools and tackles, form no. 10 as per the said rules shall be submitted before they are taken into use. All lifting tools and tackles shall be of reputed make having International manufacturing standard and shall be maintained in proper and workable condition.
10. The Contractor shall nominate one Safety Officer with required qualification for supervising the daily job/ shutdown jobs for observing and maintaining the safety aspects at site. He is solely responsible for any safety measures during maintenance

work. He has to ensure that all the workmen working at site are equipped with essential PPE’s and proper safety arrangement is made at the SLPP site.

11. After mobilization of any tools & tackles to site, which includes chain pulley blocks, D-shackles, wire ropes, winch machines, Mobile crane, Hydra etc. shall be offered for inspection with all above statutory test certificate before using at site for any work. They should use all tools and tackles only after certification by GIPCL representative/safety officer.
12. When working at height, working on ceiling or roof covered with fragile materials, full body harness safety belt, ladders and crawling boards, fall arrester, etc. shall be used to prevent accident. Further, during working on height, contractor should arrange proper scaffolding of still pipes, safety net, full body safety belt, fall arrestor system etc. Advice and instructions of engineer in charge/ safety in charge shall be strictly complied with in this regard. All necessary safety precautions shall be taken by the contractor to prevent accident and personnel injuries while working on height.
13. Flash back arrestors made of reputed manufacturer shall be provided on cutting torch, on DA cylinders and on O2 cylinder. Cylinder caps also required for handling the cylinders at the work at height area. Gas cylinders shall be transferred through gas cylinder trolley only with cylinder cap and stored up right (vertical) position only. All gas cylinders shall be hydro tested / certified as per gas cylinder rules 2004. Gas cylinders shall be stored, handled as per gas cylinder rules 2004.
14. All vehicles shall be operated by licensed drivers only. All vehicles’ PUC to be tested as per Government approved RTO guidelines. All Vehicles must be parked in Parking space designated by GIPCL. If any vehicle is found inside the plant premises other than the parking area such vehicles shall be handed over to Security dept. and their entry shall be cancelled for movement inside the plant premises with immediate effect.
15. All electrical equipment shall be in good condition and free from any defect. Electrical tools & equipments i.e. welding machine, grinding and drill machine etc. may be checked by the electrical engineer of the contractors regularly, every six month at least and report to be submitted to concerned HOD and safety depts.
16. During hot work, contractor will use fire curtains like asbestos sheets or fire blankets to prevent falling and spreading of sparks and hot material on and around the work area. Contractor will procure and use such items. ELCB / RCCB shall be provided with rating of 9-30 milli amperes on welding machine and all portable power tools.
17. The contractor shall fill – up Incident notification form (S-I), Incident Investigation form (S-II) and near miss report within time limit as specified in forms, if any accident, Incident, near miss occurred while working at SLPP site.
18. Major AMC / ARC contractor (Where the man power strength is more than 50 and above) should appoint / nominate one qualified safety officer and he shall be responsible for addressing all the safety related aspects of execution of contract jobs and he will in close coordination with safety officer of SLPP and attend all safety related meeting such as safety committee, on job safety training etc. Where the contractual man power is less than 50, the site in charge of the contractor will act as a safety officer and he will perform all the duties of safety officer as mentioned above.
19. No loose connection / joints allowed in electrical cables during performance of any kind of job.
20. Safety shoes to be issued to female employees also.
21. All the vehicles shall be fit as per RTO guidelines and valid fitness certificate is required as per RTO guidelines.
22. The Contractor’s nominated safety officer shall be imparted regular on-job safety training like tool-box talk etc. and submit a record of such training in safety dept, respective dept and HR&A dept.

23. The Contractor shall comply all the new requirements related with safety as informed by the HOD / Safety department from time to time.
24. Penalty to be imposed for Violation of safety norms is proposed as follows:-
    The Contractor & Contract workmen shall strictly adhere to Safety standards / Guidelines as per practices. The list provided below is an indicative list to explain the principles behind safety practice. If the contract workmen fail to comply with safety standards as per category A, B & C below, penalty shall be levied on the contractor as per the table mentioned below:

Category	Classification	Examples / Cases	Penalty
A	PPEs Related	Working without helmet, shoes, safety belt, gloves etc.	Rs.100 /- per instant.
B	WI Related	Failure to adhere to HSE guidelines/plans, careless attitude in material handling, Machine being used with damaged machine guard, unsafe electrical work - workout plug top/improper electrical joints/cables lying on ground, electrical equipment working without proper earthing, machine being used without machine guard, Welding machine without ELCB / RCCB of proper rating, Gas cylinder without test certificate, Cylinder cap, NRV / Flash back arrester, Cylinder trolley etc.	• Rs.500 /- per instant. • After three incidence, Per incidence Rs.2500/- • Continuous unsafe acts will disqualify the contractor from further participation in tender of contract with GIPCL-SLPP.
		Unsafe working practices at height more than 3 meters	
		Working without permit or non-compliance with permit conditions like hot work, height work etc. as applicable, lifting tools and tackles being used without third party inspection certificates in form no. 9/10 as per Factory Act – 1948 etc..	
C	Unsafe Practices	Breach of safe practices by a particular person repeatedly for three times.	Suspend the entry gate pass for one week. After two suspensions his gate pass will be cancelled.

Penalty so levied against the contractors and company employees will be used during the observation of National Safety Day.

The contractor, workmen following good safety practices in their work area continuously will be rewarded / honored on National safety day.

16.1. Electrical safety

a. All the electrical apparatus including welding machine (either 3-phase or single phase) should be provided with Earth Leakage Circuit Breaker (ELCB/RCCB/RCBO) of 30mA rating.
b. Bidder/Contractor should ensure periodic checking of ELCB provided in their electrical apparatus.
c. Bidder/Contractor should ensure that there should not be any joint in the power supply cable of any machine. All cables should be in good condition with no bare insulation or frayed wires
d. Any power supply switchboard/extension boards brought by Bidder/Contractor should have ELCB of 30mA rating and it should have sockets along with 3-pin plug.
e. Any type of cable brought by Bidder/Contractor should not have any joint and should be of sufficient capacity for the respective job.
f. Bidder/Contractor to bring their own 24V rating portable hand lamps along with cable of (apparatus should be having 230V / 24V transformer) for the temporary lighting arrangement required at site for the respective jobs.
g. Bidder/Contractor should bring sufficient quantity no. of temporary light fixtures (230V or 24 V as per requirement of job/contract), extension boards, cables to draw supply from nearest power point.
h. Hand-held and portable machines shall be equipped with a built-in switch to switch off power in case of emergency
i. Bidder/Contractor to ensure healthiness of their electrical equipment whenever brought to GIPCL site and get them tested / verified by GIPCL Electrical Department representatives before start using.
j. Bidder/Contractor to ensure - All portable electric apparatus shall be regularly examined, tested and maintained to ensure that the apparatus and leads are in good order.
k. Only three-core cable shall be used for single phase operated tools with the third core connected to earth.
l. Ensure that all metallic portable appliances are provided with 3 pin plug and socket connections with third pin be connected to the ground terminal where ever possible. Also, the metal work of the apparatus is effectively earthed.
m. All cables and connections should be sound and of adequate capacity and properly insulated while using any welding machine and other power connections.
n. The earthing arrangements should be properly made with earthing clamps or a bolted terminal while using any welding machine
o. Electric holders when not in use, should be placed on an insulated hook or the holders should be fully insulated while using any welding machine
p. Whenever the welder stops or leaves work for any appreciable time, the power supply to welding machine shall be effectively disconnected while using any welding machine
q. GIPCL will provide either single phase OR 3-phase 3 wire power supply from the nearby point at job site. Bidder/Contractor to supply the required cable between GIPCL power supply point to equipment brought by Bidder/Contractor for the specified job. Further, if Bidder’s/Contractor’s equipment requires 3-ph 4 wire supply then they should derive 3-ph 4 wire supply from GIPCL 3-ph 3 wire supply system by

incorporating sufficient capacity transformer. Like for hydro jet cleaning system, mixer machine, induction heating machine, SR machine etc., GIPCL will provide 3-ph 3 wire power supply.

r. Cable between welding machine to GIPCL power supply point should have cable TOP plug towards GIPCL power supply point of Make BALS having rating as 63 Amp.

Contractors not following above electrical safety points at any point of time are liable to penalty and their machine/ apparatus shall be seized by GIPCL

17. REJECTION OF WORK

If, as a result of inspection, examination or testing, the GIPCL's Representative/Engineer decides that any materials, work or workmanship is defective or otherwise not in accordance with the Contract, the GIPCL/Engineer/ GIPCL's Representative may reject such plant, materials, work or workmanship and shall notify the CONTRACTOR promptly, stating his reasons. The CONTRACTOR shall then promptly make good the defect and ensure that the rejected item complies with the Contract. If Contractor failed to rectify the rejected work or workmanship, GIPCL/Engineer reserves the right to deduct or withhold amount against rejected work or Workmanship. CONTRACTOR shall not entitle for any claim or release of hold payment until rectify the defect up to satisfactory of GIPCL. If Contractor failed to rectify any such defective work or workmanship, GIPCL reserve the right to rectify at risk and cost of the CONTRACTOR and deducted by the GIPCL from any amount due, or to become due, to the CONTRACTOR's dues.

If the GIPCL/Engineer/GIPCL's Representative requires such materials, work or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If such rejection and retesting cause the GIPCL additional costs for the traveling and lodging costs of GIPCL/Engineer's personal for attending the retest, such costs shall be recoverable from the CONTRACTOR by the GIPCL and may be deducted by the GIPCL from any amount due, or to become due, to the CONTRACTOR.

18. GENERAL TERMS AND CONDITIONS

s. All materials, tools & tackles, labours, equipments, vehicles, tractors, dumpers, road roller, bitumen paver, etc… to execute the contract are in the scope of the contractor. The contractor should ensure that tools & equipments are in healthy condition.

t. The decision of the Engineer-in-charge shall be final and binding on the contractor for defining the terms and condition included in this contract.

u. If the work is not found satisfactory, Engineer-in-charge reserves the right to take suitable action.

v. Contractor shall depute full time independent experienced site-in-charge and independent site supervisor at site. They shall co-ordinate with concern GIPCL engineer and shall bear overall responsibility of contract including joint measurement, billing etc. Such person shall function from site office of contractor at SLPP.

w. Contractor shall also nominate one safety supervisor at site and shall submit nomination of safety supervisor in writing before commencement of contract. Safety supervisor shall arrange small safety talk with all workers working under this contract.

x. Contractor shall strictly follow the existing work permit system of the GIPCL and any future revisions.

y. The contractor has to take EC insurance policy for their workmen. The contractor has to submit labor license and PF account number to the Engineer-in-charge before start the work.

z. The contractor has to do the job timely. GIPCL shall not compromise in delay. In case of delay of work without any valid reason, the GIPCL reserves the rights to carry out the work by deploying other agencies at the risk & cost of contractor with additional 10% overhead charges.

aa. Contractor shall mobilize the resources as per need within the period of four hours. If the contractor fails to mobilize sufficient resources to complete the job in time, GIPCL will execute the job through other agency at the risk and cost of the contractor with additional 10% overhead charges.

bb. Contractor should mobilize all resources for efficient & smooth execution of contract within seven days from the date of issue of Letter of Intent/Work Order.

cc. The offered prices / item rates shall remain firm till completion of the contract and any agreed extensions thereafter and shall not be subject to any escalation, idle charges for labor, machinery, overhead expenses etc… due to any reason whatsoever. No price escalation / idle charges shall be entertained due to delay in work on unavailability of work front, non-issue of work permit, holding of work permit for any reason, unavailability of contractor’s supervisor, violation of safety rules, unsafe act by any of contractor’s worker, negligence & ignorance of safety & quality instructions of GIPCL Engineer-in-charge or any other reason whatsoever.

dd. Contractor must fulfill all the safety regulations and to take safety measures to avoid hazards. Contractor shall arrange all standard adequate healthy safety PPEs like but not limited to approved quality safety shoes & safety helmets, standard dust masks, safety goggles, etc… as required and shall use exclusively under this contract for all the time during working at specified locations, failing which, the Engineer-in-charge may hold the work and will take necessary action including penalty as decided. If the contractor repeatedly violates safety rules/regulations (more than three successive incidents), Engineer-in-charge may take necessary action against the contractor, including appropriate financial penalty (Maximum of Rs.1,000/- per incident per man-day and as per above clause no. 16) and/or termination of contract.

ee. One or more jobs may be required to be done simultaneously and contractor shall mobilize additional resources accordingly.

ff. Timely completion of all jobs and works shall be the essence of this Contract. Contractor should closely monitor each activities and complete the jobs as per the time given by and under the supervision of the Engineer-In-charge and shall ensure that sufficient manpower is deployed for the same.

gg. The contractor has to complete the works as per the planning schedule and their respective supervisor has to interact with Engineer-In-Charge for PTW (Permit to work), work instruction, Return of permit etc.

hh. The contractor has to submit daily reports showing work carried out with details of available manpower, material & machinery etc.

ii. Any job other than the listed jobs in work order shall be executed by the contractor on instruction from GIPCL and payment shall be made to the contractor on respective item rate only.

jj. The Government of India has enacted the Micro, Small and Medium Enterprises Development Act, 2006 (the “Act”) and the Act has come into force from October 2, 2006. The Bidder shall confirm whether your organization is registered under the Micro, Small and Medium Enterprises Development Act,

2006. If your organization is registered under the Act, please specify the category i.e., Micro Enterprise, Small Enterprise or Medium Enterprise under which it is registered and kindly attach a copy of your registration certificate.

kk. The Bidder shall provide details of registration along with copy of the registration certificate issued by the District Industries Centre/Department of Industries, etc of the respective State Government. It is to be noted that large scale industries and trading firms have been excluded from the purview of the Act.

ll. GIPCL is an ISO 9001, ISO 14001, OHSAS 18001 & ISO 50001:2011 (EnMS) certified company, and GIPCL gives extreme importance to maintain these global standards. Contractor shall be required to observe these standards while working with GIPCL. Contractor should ensure that his workmen/labour work in accordance with them.

19. CONTRACTOR'S SUPERVISION

The contractor shall, during the whole time the work is in progress, employ a qualified experienced site-in-charge of the works with adequate experience in handing of jobs of this nature and with the prior approval of the GIPCL / ENGINEER. Such in-charge shall be constantly in attendance at the site during working hours.

During CONTRACTOR'S supervisory engineer absence during working hours, if unavoidable, and also beyond working hours, when it may be necessary to give directions, orders may be given by the ENGINEER / GIPCL and shall be received and obeyed by the CONTRACTOR'S superintendent or Foreman who may have charge of the particular part of the work in reference to which orders are given. If requested to do so, the ENGINEER /GIPCL shall confirm such orders in writing. Any directions, instructions or notices given by the ENGINEER / GIPCL to him, shall be deemed to have been given to the CONTRACTOR. The representative of the CONTRACTOR shall have all necessary powers to receive materials from the GIPCL, issue valid receipts for the same, engage labour or purchase materials and proceed with the work as required for speedy execution.

None of the CONTRACTOR'S Superintendents, engineers, supervisors or labour should be withdrawn from the work without due notice being given to the GIPCL / ENGINEER; further no such withdrawals shall be made if in the opinion of the GIPCL / ENGINEER such withdrawals will jeopardize the required pace of progress / successful completion of the work. The CONTRACTOR shall employ in or about execution of the work only such persons as area careful, skilled and experienced in their respective trades, and the GIPCL shall be at liberty to object to and require the CONTRACTOR to remove any person employed by the CONTRACTOR in or about execution of works who in the opinion of the ENGINEER misconducts himself or is incompetent or negligent in the proper performance of his duties and all such persons shall not again be employed upon the works without the prior permission of the GIPCL. Neither the CONTRACTOR and the PURCHASER nor the ENGINEER shall hire or employ any employee of the other party except by mutual consent.

20. CONTRACTOR TO REMOVE ALL OFFENSIVE MATTER IMMEDIATELY AND CLEAN-UP

All loose materials, wastage, packing materials, cut pieces or other matter of an offensive nature shall not be deposited on the surface, but shall at once be carted away by the CONTRACTOR to some pit or place provided by him away from the site of work and approved by local authorities.

As a part of the work included in this contract, the CONTRACTOR shall completely remove and satisfactorily dispose of all temporary works to the extent directed. He shall tear down and dispose of all temporary works, shall remove or grade, to the extent directed, all plant and equipment, shall satisfactorily dispose off all rubbish resulting from the operations under this contract and shall do all work necessary to restore the territory embraced within the site of his operations to at least as good order and conditions as at the beginning of the work under this contract.

21. FACILITIES TO BE PROVIDED BY GIPCL

A. The Company shall provide the following facilities to the Contractor at the site:

a. Electricity & water at nearest available one point. Further distribution to be done by contractor at their cost.
b. Quarter(s) for supervisor/ engineers on chargeable basis in GIPCL's township at discretion of GIPCL if available.
c. Workshop facility as available at site only on chargeable basis. However contractor may visit the workshop to ensure the existing facility. For the facilities other than available, contractor has to carry out the job outside at their own cost.
d. First aid facilities as available on chargeable basis.

Apart from the above, no other facilities shall be provided by GIPCL.

B. GIPCL shall also conduct an orientation program appraising the workmen regarding the safety norms and measures to be observed during work operations at the plant site.

22. WORK MEASUREMENT/CERTIFICATION

a. The work to be performed being a specialized nature, the contractor should be fully conversant with modern practices and should be able to carry out works independently of large thermal power plant. The contractor shall therefore be required to engage qualified/ experienced personnel to undertake the work as per specifications and requirement.
b. Contractor should maintain one computer with printer for keeping daily records and maintain the data.
c. All the work measurements shall be jointly recorded in a measurement sheet/register/relevant documents by the contractor / authorized representative of the contractor and the Engineer-in-charge. The measurements shall be clearly written indicating date of measurement, location, reference to drawings, if any, and jointly signed.
d. The Contractor shall be required to furnish satisfactory job completion report to GIPCL. The submission of report should be on daily basis, the monthly bill payment shall be released based on the certified reports of the works.
e. Inspection of work will be done by Engineer in Charge or his authorized representative. If the work is not found satisfactory engineer in charge reserves the right to take suitable action and shall be binding to the contractor.

23. FORCE MAJEURE

The performance of the obligations herein contemplated may be suspended without incurring the penalty in the event of the subsistence of Force Majeure conditions. If a Force Majeure situation arises, the affected Party shall promptly notify the other Party

in writing of such conditions and the performance shall be suspended as per mutual agreement.

For the purposes of this clause, ‘Force Majeure’ means an event beyond the control of the Party and not foreseeable by the Party and shall include events of floods, explosions, riots, wars, hurricane, epidemics, any other Act of God, quarantine restrictions, terrorism, government actions and provided always that such acts result in the impossibility of the further performance of the contract.

24. INDEMNITY

The Contractor shall indemnify and keep harmless GIPCL from and against all actions, proceedings, claims, demands, losses, costs, damages and expenses whatsoever which may be brought against or suffered by GIPCL which it may sustain, pay or incur as a result of or in connection with the performance/ purported performance/ non-performance of the contract by the Contractor.

In case, in any litigation pertaining to labour employed through contractor if any direction or order is issued by court at any point of time the contractor shall comply with and implement such direction or order whether passed at the time of award of contract or during the pendency of contract. Further, the Contractor shall indemnify the GIPCL against all consequences arising and affecting GIPCL owing to the compliance of the orders by the Contractor.

25. GOVERNING LAW AND JURISDICTION

This tender document and contract shall be governed by the laws of India and the Courts at Surat shall have jurisdiction regarding the same.

26. Where any portion of the General Condition of Contract is repugnant to or at variance with any provisions of the Special Condition of Contract, then unless a different intention appears, the provision of the Special Conditions of Contract shall prevail to the extent of such repugnancy of variance.

SECTION-D
SPECIAL CONDITIONS OF CONTRACT

1. DETAIL SCOPE OF WORK

The scope of work covered by this specification, in general, comprises the general road works for repairing of bituminous approach roads, internal roads which includes activities like but not limited to cleaning, excavation for Box cutting as per requirement, surface preparation, Scarifying the existing bituminous top pavement, cleaning & disposal of debris/dust, rolling of existing prepared surface before proceeding with further activities, Wet Mix Macadam (WMM), Bituminous Base course, Dense Bituminous macadam, Bituminous concrete , asphalt painting and Road marking thermoplastic paint at Surat Lignite Power Plant-GIPCL & its Colony, at & Post: Nani Naroli, Taluka: Mangrol, Dist.: Surat as per detail technical specifications and item description (Section-E).

Scope of works covered under this specification includes in general excavation of box cutting, Scarifying the existing bituminous top pavement, cleaning and disposal of waste materials, debris/dust etc., providing & laying Wet Mix Macadam (WMM) with watering, leveling and rolling, applying primer with bitumen emulsion on wet mix surface, providing, laying & compacting 75 mm thick Bituminous Base course on wet mix surface, providing, laying & compacting D.B.M. and subsequent average 30mm thick bituminous concrete, asphalt painting and Thermoplastic paint etc.. as per detailed item nomenclature, technical specification etc.

Repairing of road shall including repairing of pot holes, damages, wearing of surface, cracks on road surface, settlement of road etc. The scope of work shall also includes diversion of existing traffic safely by providing necessary sign boards, making alternate arrangement for movement, making working area safe by providing barrier etc complete as directed by Engineer-in charge.

Scope of work includes providing, supplying and laying of all materials, safe storage of materials, wastage, labour, supervision, shifting, transportation, loading, unloading, plant and equipment, machinery, wastage of materials, all consumables such as, but not limited to fuel, lubricants, petrol, oil, diesel, all required tools & tackles, all leads & lifts, etc.. and all necessary auxiliary works not specified herein but which is required to carry out for satisfactory and timely completion of entire scope of work as specified and as directed by Engineer-in-charge.

The Bidder shall carry out Wet Mix Macadam work with wet mix plant of having sufficient Capacity.

The Bidder shall carry out D.B.M. and B.C. with Hot Mix Plant/Batching Plant.

The bidder must have to mobilized and make own arrangement for WMM batching plant, Hot mix plant/Batching Plant for bitumen works, sensor paver machine of required width, Vibro roller minimum 10 tone capacity, water tanker, grader machine, air compressor machine, dumpers, bitumen spreader and other required tools and tackles for the quality and timely completion of work as directed by Engineer-in-charge as per site requirements time to time.

Bidder shall mobilize/arrange sufficient resources and equipment like but not limited to wet mix plant, Hot mix plant/Batching Plant with all essential component as per direction of M.O.T.S. issued vide letter no. RW/24011/3/2000 dtd, & no. RW/24011/3/2000 (P1) 14/12/2000, Vibro roller minimum 10 ton capacity, Water Tanker, Automatic sensor paver, Motor grader, Compressor air machine, JCB, dumpers, tractors, Mechanical bitumen sprayer, Bitumen tanker with burner facility, DG sets etc. for timely completion of work.

Bidder shall arrange to take levels with dumpy level or theodolite or total station of existing ground level and each layer of road construction & Level register shall be maintained, if necessary.

Contractor shall use materials as approved by GIPCL for road works and submit test certificates for aggregates, bitumen, and bitumen emulsion used for the work time to time. Quality of material shall be tested on site and in NABL accredited authentic laboratory as directed by Engineer-In-Charge Expenses incurred for such tests will be borne by the contractor.

Prior to start the work, the contractor shall get approval of the samples of each and every material, which will be the part of work as a whole from GIPCL. Such materials are like, but not limited to Bitumen 60/70 grade (VG30) of IOCL/approved), aggregates of required size, sand, thermoplastic paint, Emulsion (RS-1), Emulsion (SS-1) etc.

The scope of work covered by this specification, in general, comprises:-

1.1 Cleaning & removing all obstructions, loose stone, materials and rubbish of all kind, bush, wood and trees from land width required for the roadway.

1.2 To carry out survey work for finalization requirement of excavation/ filling work by taking initial levels and also the alignment of the road shall be properly set out true to line, curves, slopes, grade and sections.

1.3 Mobilization of all required equipment including not limited to JCB, excavator, dumper, auto level machine, water tanker, grader, paver, vibratory roller with minimum 80-100 kN static weight, concrete mixture machine, vibrator etc. and all other tools & tackles as required.

1.4 The scope of work also including supply of all GIPCL approved quality materials, consumable, labour, supervision, testing and completion of work as per technical specification etc. complete.

1.5 Providing and laying Wet Mix Macadam as per requirement at specific patches/locations wherever required.

1.6 Supplying and applying Slow Setting-1 (SS-I) bitumen emulsion confirming to IS 8887, for application of prime coat over Wet Mix Macadam at the rate of 7.5 kg/10SM area.

1.7 Supplying and applying Rapid Setting-1 (RS-I) bitumen emulsion for application of Tack coat before application of binder course at the rate of 4.00 kg/10 SM area.

1.8 Providing and laying average 75 mm consolidated thick or as per GIPCL requirement of bituminous base course using BT chips of required gradation premixed with VG 30 bituminous binder @ 1.99% by weight of total mix

1.9 Providing and laying avg 50 mm thick compacted or as per GIPCL requirement of Dense graded bituminous macadam with tack coat at 2.50 Kg/10 Sq.mt. of Emulsion RS-I by mechanical sprayer and using stone chips as per MORT&H gradation and asphalt VG-30 grade @ 4.50% (As per mix design) by total weight

of mix for binder by batch mix hot laid process including transporting the mix and spreading the same by paver finisher and consolidation by vibratory roller including providing and operating required drum mix/batch mix plant & machinery cost of fuel, asphalt, oil, lubricant & labour charges etc. complete.

1.10 Providing and laying avg 30 mm thick compacted or as per GIPCL requirement of Bituminous Concrete using Emulsion RS-1 for Tack coat at 2.5 Kg./10Sq.mt. with mechanical sprayer, stone chips as per MORT&H gradation & VG-30 grade asphalt for mixing @ 5.50% (As per mix design) by weight of total mix for binder including heating the aggregate and asphalt by Drum mix/Batch mix plant and spreading the same by sensor paver finisher and consolidation with vibratory roller including providing all materials, equipments, tools and plants, oil, kerosene, fire wood, labour charges etc. complete.

1.11 Providing and applying evenly TACK COAT on road surface with bitumen 60/70 (VG-30) grade @ 5.0 Kg per 10 M2 including heating the asphalt and spraying the same using Bitumen tanker with burner facility & sprayer then spreading approved sand/aggregate/dust over the treated surfaces at the rate of 0.03 M3 per 10 M2.

1.12 Providing and applying 2.50 mm thick hot applied thermoplastic road marking of white / yellow colour on bituminous / concrete surface with fully automatic machines.

1.13 Before application of subsequent layers, the existing prepared surface shall be thoroughly cleaned from dust by deploying high capacity compressor air.

1.14 The scope of work also includes necessary arrangement for diversion of ongoing traffic on the road by preparing necessary approach without any extra claim, in manner creating least interference to the flow of traffic while consistent with the satisfactory execution of the work.

1.15 The scope of work also includes to take all necessary measures for the safety of traffic during the work and provide, erect and maintain such barrels, including signs, markings, flags, lights and flagmen as may traffic approaching or passing through the section of road under repair. The rate is including all such operations for completion of work

1.16 The bid submitted by the bidder not covering the total scope of work and services as detailed out in the tender document shall be liable for rejection.

1.17 Quantum of job mentioned against all items in the price bid are indicative only & may vary as per site requirement and not to be construed as maximum or guaranteed quantity. The quantities shown in the schedule of quantity are approximate quantities for the contract period and they may vary as per job requirements.

1.18 All the miscellaneous activities pertaining to specific work to be executed for satisfactory performance is in the scope of contractor in his quoted rates.

1.19 Quality control and testing of samples as per technical specifications, quality plan through GIPCL approved NABL accredited laboratory as directed by Engineer in charge. Expenses incurred for all these tests shall be borne by contractor.

Scope of work includes providing, supplying and laying of all materials, safe storage of materials, wastage, labour, supervision, shifting, transportation, loading, unloading, plant and equipment, machinery, wastage of materials, all consumables such as, but not limited to fuel, lubricants, petrol, oil, diesel, all required tools & tackles, all leads & lifts, etc.. and all necessary auxiliary works not specified herein but which is required to carry out for satisfactory and timely completion of entire scope of work as specified and as directed by Engineer-in-charge.

The Bidder shall carry out Wet Mix Macadam work with wet mix plant of having sufficient Capacity.

The Bidder shall carry out D.B.M. and B.C. with Hot Mix Plant/Batching Plant.

The bidder must have to mobilized and make own arrangement for WMM batching plant, Hot Mix Plant/Batching Plant of sufficient capacity for bitumen works and also distance of the plant shall be minimum to maintain the required temperature of bituminous mix of DBM & BC works. The bidder shall also mobilize sensor paver machine of required width, Vibratory roller, water tanker, grader machine, air compressor machine, dumpers, bitumen spreader, dumpy level machine and other required tools and tackles for the quality and timely completion of work as directed by Engineer-in-charge as per site requirements time to time.

Bidder shall mobilize/arrange sufficient resources and equipment like but not limited to wet mix plant and Hot Mix Plant/Batching Plant of sufficient capacity with all essential component as per direction of M.O.T.S. issued vide letter no. RW/24011/3/2000 dtd, & no. RW/24011/3/2000 (P1) 14/12/2000, Vibratory roller, Water Tanker, Automatic sensor paver, Motor grader, Compressor air machine, JCB, dumpers, tractors, Mechanical bitumen sprayer, Bitumen tanker with burner facility, DG sets etc. for timely completion of work.

Bidders shall use materials as per technical specifications and as approved by GIPCL for road works and submit test certificates for quarry spell, aggregates, bitumen, and bitumen emulsion and any other materials used for the work time to time. Quality of material shall be tested at authentic NABL accredited laboratory as directed by Engineer-In-Charge. The bidder shall submit design mix and Job mix formula of WMM, DBM & BC as per MORTH Specification before start of work.

Prior to start the work, the contractor shall get approval of the samples of each and every material, which will be the part of work as a whole from GIPCL. Such materials are like, but not limited to Bitumen (VG 30 grade of IOCL/approved), aggregates of required size, Emulsion, Thermoplastic paint etc.

It is not the intent to specify completely herein, all details of works covered under this enquiry. All works shall conform in all respects to high standards of engineering, design and workmanship and shall fulfill the anticipated performance during the CONTRACTOR’s guarantee period in a manner acceptable to the COMPANY who shall have the power to reject any works or materials which in his judgment are not in full accordance with the specification requirements. In case of any conflict regarding the interpretation of the intent or meaning of the specifications or drawings, COMPANY shall interpret such intent or meaning, which will be final and binding on the CONTRACTOR.

Third party testing: -

Contractor shall arrange third party testing of materials supplied for jointly collected random samples of construction materials such as but not limited to aggregates, sand, stone dust, bituminous, bituminous materials (i.e. BBC(Bituminous Base Course), DBM, BC etc. as directed by Engineer-in-charge. All cost towards testing shall be borne by the contractor. The testing laboratory shall be NABL accredited as decided by GIPCL

1A TOOLS & TACKLES AND EQUIPMENTS

For proper execution of the contract, the contractor is required to arrange sufficient quantity of tools & tackles, dumpers, and equipments in good working condition with sufficient quantity of materials at site. Contractor is required to maintain sufficient number of standard tools & tackles including shovels, wire brush, metal pan, crowbars, axe, pickaxe, pneumatic breaker, air compressor, etc. in good working condition at site.

The estimated list of such equipments, tools & tackles is provided under Annexure-E of Section-F herein under. Contractor shall note that this list is not exhaustive and if any additional tools & tackles and equipments are required for proper performance of the contract, the contractor shall also arrange the same immediately with no extra cost to GIPCL.

1B SCHEDULE OF ACTIVITIES

Contractor shall deploy suitable manpower along with supervisors to carry out the activities of scope of work. The contractor shall deploy their sufficient supervisors & site-in-charge for day to day monitoring, to check the site requirements regularly and to get the certification of work done on daily basis from concerned GIPCL's representatives. Various activities shall be carried out as directed by GIPCL.

The work is of specialized nature and the contractor should be fully conversant with modern practices and should be able to carry out the works independently.

1C DISPOSAL OF MATERIAL

Contractor shall be responsible for removal and disposal of surplus materials, excavated stuff etc outside premises or at designated locations as per prevailing GPCB norms. GIPCL will not be held responsible for any subsequent consequences regarding improper disposal of material. Contractor shall be required to submit written undertaking along with the final bill that all the material is disposed off at outside premises or at designated location as per prevailing Government guideline and contractor shall indemnify, keep harmless the GIPCL against any future liabilities or consequences in this regard. Contractor's final bill shall be processed only after receipt of letter of undertaking by the contractor.

1D SCOPE OF CONTRACTOR

1. All tools & tackles, equipments, machineries etc required to execute the contract will be in the scope of the contractor. The contractor should ensure for healthiness/working conditions of tools, tackles & equipments.
2. All consumable items like bituminous, primer, aggregate, dust powder, cotton waste, kerosene, gas, diesel, lubricants, etc will be in the scope of the contractor.
3. All safety/PPEs required during work at site are to be arranged by the contractor.
4. The Contractor shall have to provide necessary facilities including accommodation for their labour at their own cost.
5. Contractor has to depute their experienced site-in-charge & independent supervisors for work execution as per specification and for day to day work planning & coordination with respective department's Engineer-in-charge, to get

work supervision, to record joint work done reports/measurements/trip certification, to prepare bills, to prepare & apply manpower gate pass, to maintain statutory & legal compliance records, etc…

1E TO REMEDY DEFECTIVE WORK

If the work or any portion thereof shall be damaged in any way excepting by the acts of the GIPCL, or if defects not readily detected by proper inspection shall develop before the final completion and acceptance of the whole work, the CONTRACTOR shall forthwith make good, without compensation, such damage or defects in a manner satisfactory to the ENGINEER / GIPCL. In no case shall defective or imperfect work be retained even if contractor followed all technical specifications. GIPCL will not compromise for quality of materials, works & workmanship.

The CONTRACTOR shall remain liable under the provisions of this clause notwithstanding the passing by the GIPCL of any certificate, final or otherwise or the passing of any accounts.

1F DAILY DIARY AND PROGRESS REPORT

A daily diary register will be kept in the ENGINEER'S office. The CONTRACTOR will supply all detailed information every day at 9:00 hours for the day preceding and the diary will be jointly signed by the ENGINEER and the CONTRACTOR'S representatives, every day in token of its correctness. A works instruction book, serially numbered will also be kept in the ENGINEER'S office and all day to day instructions will be given in that book. The CONTRACTOR'S representative shall report every day to see these instructions and sign them at the bottom in token of his having seen them.

The CONTRACTOR shall supply all information regarding availability of site manpower, procurement of materials, availability of tools & tackles, equipments & machineries along with progress of work, as is required by the ENGINEER for compiling the weekly progress reports. This information shall be supplied by 9:00 hours on every Monday, for the preceding week.

2. PRICE & RATES

This is SoR based contract and final item rates will be derived by applying contractor's quoted/offered final percentage rate on GIPCL's provided SoR item rate through e-Reverse Auction. Pro-rata reduction will be applied in the quoted price for all the items of SoRs after price discovery through e-Reverse Auction. The item rates so derived shall be inclusive of cost of all approved materials like bitumen, aggregate, grit, stone dust, etc and other required materials, safe storage of materials, wastage, operators ,helpers, labour, supervisors, survey work, consumables like but not limited to petrol, diesel, oil, lubricants and all the required tools & tackles, equipments, machineries like bitumen road paver machine, vibratory road roller, water tanker, dumper/truck, tractor, JCB, air compressor, etc…, loading-unloading, transportation, mobilization & de-mobilization, idle charges of labours, operators, drivers, machineries, equipments during unavailability of front or due to unavoidable circumstances or any reasons whatsoever, safety equipments & PPEs, Royalties, Rents, Stamp Duties, Central or State Government or Local body or Municipal Taxes or Duties or any other duty / tax (Item rates are without GST but GST @18% is considered in Total Estimated SoR Value), levied by the Central, State Government or other Public bodies etc…and such

other costs that are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work. The whole item rates shall be deemed to include for everything mentioned in the specification, all leads & lifts, contractor's overheads & profits for due performance of the work under this contract and such other costs that are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work. The rates shall also include cost for mobilization / demobilization of manpower, equipments, materials, etc... as per work requirement.

Any statutory changes in taxes & duties will be to GIPCL's account. In case of any reduction and/or removal of taxes, the same shall be passed on to GIPCL.

Rates will remain firm throughout the contract period and any extension thereof. There will not be any escalation/compensation to the contractor against any revision in materials cost, MWR (Minimum Wage Rates). However, contractor shall not pay less than the Minimum Wages notified by the Government from time to time to his/her employees of corresponding category.

Contractor shall at his/her expense comply with all labour and industrial laws and such other acts and status as may be applicable to this contract in respect to pay etc. On account of any default in respect of all liabilities and in case of non-compliance of the above, the company can withhold their payments till all legal liabilities are discharged.

Contractor shall deploy labour/workers & supervisors in sufficient numbers and quality to ensure workmanship of the degree specified in this contract and to the satisfaction of the Company.

The rates shall be firm for entire contract period and also during extension, if required, and shall not be subject to any escalation in prices on materials cost, idle charges for labour, machinery, overhead expenses etc. No price escalation / idle charges shall be due to any reason whatsoever.

The prices / item rates quoted by Bidder shall remain firm till completion of the contract period and any agreed extensions thereafter and shall not be subject to any other escalation, idle charges for labour, machinery, overhead expenses etc. No price escalation / idle charges shall be payable due to delay in work by contractor or due to non-availability of work front by GIPCL or any reason whatsoever.

The price/rate quoted by CONTRACTOR shall be considering mobilization of all required manpower, tools & tackles, materials, equipment for timely and satisfactory completion of all scope of work.

The value and/or quantum of work may be increased or decreased depending upon day to day requirement. However, item rates remains unchanged and the payment shall be made as per the actual quantity executed as informed & certified by GIPCL representatives.

2.1 THE TOTAL RATE INCLUDING QUOTED % RATE OF CONTRACTOR,

- *shall include the cost of all materials, tools & tackles, equipments, machineries as per detail specifications and as per above clause no. 1.1, cost of labour, operators, drivers, supervision, tools, equipments, mobilizing, demobilizing, fuels, lubricants,*

oils, setting out, transport, royalties, temporary & permanent works, local taxes & levies (Item rates are without GST but GST @18% is considered in Total Estimated SoR Value), duties, EC & off duty coverage policy, safety PPEs, overheads, profit, etc… all complete.

- *shall include octroi, all other taxes like sales tax, turnover tax of Govt. of Gujarat on works contract etc… (Item rates are without GST but GST @18% is considered in Total Estimated SoR Value).*
- *shall be deemed to cover working in adverse condition as well as supervision.*
- *shall be final and firm for the entire contract period including extension, if any, and shall not be subjected to any escalation whatsoever.*
- *Compliance of labour laws and other applicable statutory requirements is to be ensured by the contractor.*
- The contractor will pay to laborers in line with prevailing minimum wages.

3. CONTRACT / COMPLETION PERIOD AND LIQUIDATED DAMAGES

3.1 The contract / completion period for scope of works shall be 0*6* (*six*) months from the date of issuance of the Letter of Intent (LoI) and/or Work Order, whichever is earlier (except monsoon season from 1st June to 30th September) as stated in the Special Conditions of Contract ('Contract Period').

3.2 GIPCL reserves the right to extend the contract period by up to an additional 03 (three) months on the same rates, terms, and conditions, without any price escalation and without entering into a new contract on sole discretion of GIPCL only. However, delay attribute to contractor beyond above schedules will attracts penalty as LD (Liquidated Damages) as per LD clause mentioned herein under.

3.3 If the scope of work is not completed by the Contractor, necessary LD will be deducted as per LD clause mentioned herein under and in the interest of work completion, GIPCL will extend the contract period appropriately (along with deduction of LD) as per contract requirement on the same rates, terms, and conditions without any price escalation or new contract on sole discretion of GIPCL.

3.4 GIPCL reserves the right to short-close the contract at any time by giving 01 (one) month's notice, without assigning any reason.

3.5 The Contractor should prepare a detailed activity wise detail time schedule jointly with the Engineer-in-Charge within 07 days of receipt of LOI/Work Order as per contract period with each milestone. The WORK shall be executed strictly as per the time schedule which includes the time required for mobilization, testing, rectification (if any) and completion of given scope of work in all respects in accordance with Contract Document to the entire satisfaction of the Engineer-in-Charge.

3.6 The above detail time schedule (PERT/BAR network) shall be reviewed periodically and reports shall be submitted by the Contractor as directed by the Owner/GIPCL. At any time, if contractor fails to execute the work or fails to mobilize the resources and equipments as per agreed schedule of work planning and/or as per directions of GIPCL / ENGINEER within the time frame, GIPCL shall get the work done by third party at the risk & cost of the CONTRACTOR with additional 10% overhead charges of GIPCL, including GST and all costs incurred in connection therewith shall be recoverable from the CONTRACTOR by the GIPCL /ENGINEER as a debt or may be deducted by him from any money due or to become due to the CONTRACTOR.

3.7 In any case, contractor shall not be eligible to claim any compensation or reimbursement or price escalation which attributed to poor progress, poor quality work, rework, holding the work by GIPCL in case of decision or modification in proposed layout or due to any whatsoever reason.

3.8 Contractor shall not have any right for time extension or compensation or price escalation on account of delay due to late handing over of particular front by the GIPCL or any other reason whatsoever. However, GIPCL at its sole discretion may grant time extension only against the justifications submitted by the contractor in writing.

3.9 In order to complete the works timely as per approved completion schedule, contractor shall mobilize sufficient nos. of manpower & required material, resources, tools & tackles etc at locations simultaneously, including independent site supervisors.

3.10 <u>DELAY AND EXTENSIONS OF TIME</u>

3.10.1 The time allowed for carrying out the work as entered in the contract shall be strictly observed by the CONTRACTOR and shall be deemed to be of the essence of the contract on the part of the CONTRACTOR. The CONTRACTOR shall be allowed admittance to the site on the 'Date of Commencement' and he shall there upon and forthwith begin the work and shall proceed with the work with due diligence.

3.10.2 The CONTRACTOR agrees that the work shall be commenced and carried on at such points and in the order of precedence and at such times and seasons as may be directed by the OWNER/ ENGINEER in accordance with the schedule for completion of the work as outlined elsewhere. The CONTRACTOR declares that he has familiarized himself with the site and rights-of-way, with all the local conditions, and with all the circumstances which may, or are likely to affect the performance and completion of the work, and that he has allowed for such conditions. However, if a time schedule is submitted by the CONTRACTOR so as to keep the phasing of work generally in line with the time schedule drawn up and such time schedule after approval from the OWNER/ENGINEER shall be accepted and complied with by the CONTRACTOR and it shall form a part of the contract. The progress of work will be checked at regular monthly intervals and the percentage progress achieved shall be commensurate with the time elapsed after the award of the contract.

3.10.3 If the CONTRACTOR shall desire an extension of time for completion of work on the grounds of his having been unavoidably hindered in its execution or any other ground, he shall apply in writing to the OWNER within 7 days of the date of hindrance on account of which he desires such extension as aforesaid. This application shall invariably be accompanied by sufficient supporting valid documentation giving reasons for seeking such extension. No application for such extension shall be entertained if it is not received in sufficient time to allow the OWNER / ENGINEER to consider it and the CONTRACTOR shall be responsible for the consequences arising out of such negligence.

3.10.4 No necessity for an extension of time is anticipated but if untoward or extra-ordinary circumstances beyond the control of the CONTRACTOR should arise, which in the opinion of the OWNER/ENGINEER should entitle the CONTRACTOR to a reasonable extension of time; such extension may be granted but shall not operate to release the CONTRACTOR from any of his obligations. For purpose of this clause, untoward and extraordinary circumstances are defined of Contract. Under above circumstances, only extension of time may be granted but the CONTRACTOR will not be entitled to any additional compensation. In case of strike or lockout, the CONTRACTOR shall, as soon as possible, give written notice to the OWNER

/ ENGINEER, but the CONTRACTOR shall delay and shall do all that may reasonably be required to the satisfaction of the OWNER / ENGINEER to proceed with the work.

3.10.5 The OWNER shall have the right to require the discontinuance of the work, in whole or in part, for such time as may be necessary, should the condition of the weather or of flood or other contingencies make it desirable to do so in order that the works shall be well and properly executed. The CONTRACTOR shall have no claim for idle time, escalation etc. However, the OWNER will grant such extension of time for completion of the contract as he may think proper and sufficient in consequence of such delay.

3.11 LIQUIDATED DAMAGES (LD) FOR DELAY

3.11.1 In the event of the contractor failing to comply with the approved time schedule and if failing to complete the scope of works (as specified in clause no. 1 of special condition of contract), he shall be liable to pay as compensation, a sum equal to half percent (1/2%) of the "Total Contract Value" per week of delay as Liquidated Damages (LD). However, the above amount of LD will be subject to maximum of 10% of the Total Contract Value. The LD from R.A bill will be deducted based on total contract value. However, at the end of contract, the LD will be calculated based on the executed value as per final bill on completion of entire given scope of works and excess amount of LD deduction, if any, will be refunded back to the contractor.

3.11.2 The OWNER may without prejudice to any other method of recovery, deduct the amount of such damages from any money due or which may become due to the CONTRACTOR. In the event of extension of time being granted by the OWNER in writing for completion of work, this penalty clause will be applicable after the expiry of such extension period.

3.11.3 All sums payable by way of Liquidated Damages shall be considered as reasonable compensation to be applied to the use of the OWNER without reference to the actual loss or damage sustained and whether or not any damage has been sustained.

4. TERMS OF PAYMENT

The contractor shall raise running invoice/final bill in duplicate (one original in physical form and soft copy in MS Excel format as directed by Engineer-in-charge) for work performed or completed during the previous month along with the documents as mentioned hereinafter. On receipt of the invoice complete in all respects and with all the said documents, the payment in respect of the same shall be made within 21 days of such receipt of a complete invoice as per the following terms of payment:

(i) 95% of monthly RA bill along with taxes shall be released against the work executed duly certified by GIPCL. Income Tax (IT) will be deducted at source from monthly RA bills as per the rules in force. 05% cash security deposit shall be deducted from each RA bills & final bill as per clause no.: 1 of Section-C.

(ii) Contract Security deposit/irrevocable PBG at 05% of contract value excluding GST shall be submitted as per clause no.: 1 of Section-C. Cash Security deposit as well as irrevocable PBG will be returned to the Contractor without any interest after successful completion of defect liability period from actual contract completion date as certified by Engineer-in-charge and as per clause no.: 1 of Section-C.GST shall be paid along with bills after fulfillment of following terms.

(a) Submission of copy of registration certificate issued by GST Authority (to be furnished only once).
(b) Citing the GST Registration no., HSN Code and the date of issue of registration certificate on invoices.
(c) Citing GIPCL's GST no. along with contractor's GST registration no. and the date of issue of registration certificate on invoices.
(d) Claim of GST amount with percentage (%) separately shown on the invoices.
(e) The contractor shall be required to submit the proof of payment of GST of previous month/quarter, as may be applicable as & when demanded by GIPCL/Owner/company.
(f) Contractor shall inform the Owner in the event of its registration certificate is cancelled or discontinued for whatsoever reason.
(g) The contractor shall also mention on their invoice the HSN/SAC code as applicable under the GST laws under which GST is levied and a self-certified authentic third-party evidence (www.cbic-gst.gov.in) shall be adduced to that effect by the contractor.

(iii) At the time of submission of the first RA Bill, the Contractor shall submit a certificate from Engineer-in-charge regarding availability of tools & tackles, equipments, etc at site as desired by GIPCL. The Contractor shall also furnish the checklist as per **ANNEXURE-A** enclosed with the Section-F of tender document along with the RA bill of respective month if applicable.

(iv) While making running account payment, the following deductions may be made by GIPCL, if applicable:
(1) Cost of materials issued, if any, by GIPCL and to the extent consumed in the work.
(2) Security deposit recoverable if any.
(3) Advance on materials / work progress advance payments, if any.
(4) LD/Penalty for delayed delivery, penalty for delayed execution of work, recovery of charges for the work done by other contractor due to delay or any other reason, if applicable
(5) Any other dues recoverable by GIPCL from the contractor under the contract.
(6) Any applicable taxes under any law for the time being in force, eg. TDS, etc.

(v) The contractor along with monthly RA Bill shall submit copy of P.F. Challan, wages register of previous month, attendance sheet of respective month & ECR statement indicating the employee and employer's P.F contribution of previous month with respect of employees employed by him for the contract at GIPCL site if applicable.

(vi) The Contractor shall submit his Final Bill within a period of four months of the expiration or earlier termination of the contract or any extensions that may be granted by GIPCL to the Contractor. GIPCL shall not entertain any bill for any work item after expiration of period of four months. After the final bill amount is certified by GIPCL for payment and the same is made known to the bidder by GIPCL, the bidder to submit no claim no arbitration certificate to GIPCL for the latter to pay the Final Bill.

(vii) The Contractor shall include all his claims in the Final Bill submitted by him and accordingly the final bill submitted by the Contractor shall be deemed to be inclusive of all and whatsoever the claims that the Contractor may have from GIPCL. The Contractor shall not be entitled to claim any amounts which are not mentioned in the Final Bill and the Contractor shall be deemed to have waived any claims not mentioned in the Final Bill and shall not be entitled to

recover the same from GIPCL subsequent to the submission of the Final Bill on any account and GIPCL shall stand absolved of all its liabilities in respect of any such claims not raised by the Contractor in his Final Bill.

5. SUBMISSION OF TECHNICAL DOCUMENTS TO THE ENGR-IN-CHARGE

Contractor shall submit following documents to the Engineer-in-charge for verification purpose of the bill:-

(i) Joint Measurement records / Daily work certification records in the form of joint inspection reports duly signed by authorized representative of contractor and GIPCL Engineer.
(ii) Jointly recorded level records.
(iii) Authorized weighment slips of materials for respective items to be paid in MT through GIPCL's authorized weighbridge.
(iv) Test reports of material and other specified field tests as applicable.

The bill will not be entertained without submission of above documents.

6. SUBMISSION OF STATUTORY COMPLIANCES WITH EACH BILL

Contractor shall submit each RA bill of work carried out along with following documents.

(i) Copy of statutory compliance, labour compliance records as applicable to this contract.
(ii) Notarized Indemnity Bond in case of Final bill.
(iii) No claim - No arbitration certificate as per Performa (Annexure-D) in Section-F), after releasing final bill payment.

Bill submitted without any of the above documents shall not be processed for payment.

7. MEASUREMENT & DAILY REPORTS

The measurement shall be in item wise unit mentioned in Schedule of Quantity for finished product of work done as per detailed technical specifications mentioned in schedule of quantity.

The contractor shall be required to furnish satisfactory job completion report and joint record of measurement to GIPCL. In the bill, payment shall be released based on the joint measurement record of the works.

Excavation and WMM works shall be paid based on joint certified level records before and after completing respective activities as per scope & specifications.

To arrive at weight of the material for payment in MT basis, **Weighment slip from GIPCL Weighbridge shall be attached with the bill. Weight shall be considered final from GIPCL Weighbridge only, no other weigh bridge will allow for final certification.**

7.1 Contractor should maintain one computer with printer for keeping daily records and maintain the data.

7.2 The Contractor shall be required to furnish satisfactory job completion report to GIPCL. The submission of report should be on daily basis. The monthly bill payment shall be released based on the certified reports of the works.

7.3 Inspection of work will be done by Engineer-in-Charge or his authorized representative. If the work is not found satisfactory Engineer-in-Charge reserves the right to take suitable action and shall be binding to the contractor.

Wherever any dispute regarding mode of measurement arise, the decision of the Engineer-in-charge shall be final and binding to the contractor.

8. MOBILIZATION AND EXECUTION

a) Contractor shall mobilize the resources at site within 07 to 15 days from the time the intimation given by GIPCL.

b) Contractor shall provide site supervisor who will be responsible for supervision and execution of job in specified time with respect to quality, specifications, site preparations, safety, coordination with GIPCL, joint measurements, etc... The supervisors shall coordinate with the Engineer-in-charge of GIPCL for proper execution of the job.

c) Contractor shall provide accommodation for the persons deployed by him for the work at his own cost.

9. QUANTITY OF WORK

The quantities specified are estimated and for tendering purpose only. Payment will be made, based on actual work done as certified by Engineer-in-charge of GIPCL. Quantities of individual items may be revised during the course of contract period based on plant operational & maintenance requirements as well as extent of deterioration of structure taken up for painting in this contract as directed by Engineer-in-charge.

Contractor shall not be entitled for any compensation on ground of such alteration in given estimated quantities within overall limits of awarded contract price. GIPCL reserves the right to operate or increase/decrease quantities in each item or omit any item included in Schedule of Quantity at its discretion. Contractor shall have no claim, whatsoever, on grounds of loss of anticipated profit etc. on account of the same.

10. DEFECT LIABILITY PERIOD

The defect liability period of whole work shall be 03 (Three) years after completion of contract as certified by Engineer-in-charge.

During defect liability period, if any defect arises in jobs which have been already executed, shall be rectified by the contractor at free of cost within seven days on receiving the intimation from Engineer-in-charge failing which GIPCL may take suitable action and also engage third party to carry out rectification work at the risk and cost of the contractor.

11. GENERAL CONDITIONS OF CONTRACT

General Conditions of Contract (Section-C) and detail specification prepared by the company will be applicable for this contract. The same is enclosed herewith. Bidders are advised to go through the same.

Where any portion of the general conditions of contract is repugnant to or at variance with any provisions of the special conditions of contract, then unless a different intention appears, the provision of the special conditions of contract shall prevail to the extent of such repugnancy of variance.

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SECTION-E

PRICE BID (To be quoted online only through website:

https://tender.nprocure.com)

Description (1)	SoR Amount including GST (Rs.) (in Rs.) (2)	Above/Below (3)	Contractor's percentage to be filled by bidder (equal, below or above SoR) (4)	Total Quoted Amount in (Rs.) (5)
Surat Lignite Power Plant - 4X125 MW, Unit # 1 to 4: Repair & Resurfacing of various bituminous roads of Power Plant and SLPP Colony (Year: 2026-27)"as per SoR amount (Including 18% GST).	2,78,45,166.05	Equal Above Below		

NOTE:

The quoted percentage rate on given SoR item rates will be inclusive of all labour cost, equipments, materials, supervision, consumables, tools, tackles, profit & overheads, all taxes & duties (GST 18% is considered on total estimated SoR value), etc… Rates shall be firm for entire duration of contract period till completion of works

My rates are as under (only to be quoted online on (n)Procure).

At estimated value

OR _____ %age above the estimated value

OR _____%age below the estimated value.

Note:- (1) Percentage rate offer/bid price on SoR value including GST shall be quoted through online (n)-Procure only. Hard copy of price bid shall not be considered/accepted.

(2) Evaluation of tender & E-Reverse Auction will be done on gross total quoted amount with GST.

NAME OF TENDERER : _____

SEAL & SIGNATURE OF TENDERER : _____

NAME OF AUTHORISED PERSON : _____

ADDRESS : _____

PHONE NO. _____ **FAX No.** _____

MOBILE NO. _____ **Email ID.** _____

SUMMARY FOR REPAIR & RESURFACING OF BITUMINIOUS ROAD OF POWER PLANT AND SLPP COLONY

	Name of Work	Amount (Rs.)	GST @ 18%	Total Amount with GST
		A	B	C=(A+B)
A	Repair of various bitumen roads in Plant	7342759.65	13,21,696.74	86,64,456.39
B	Repair of various bitumen roads in colony	1,62,54,838.70	29,25,870.97	1,91,80,709.67
	Total Amount (Rs.)	**2,35,97,598.35**	**42,47,567.70**	**2,78,45,166.05**

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SCHEDULE OF QUANTITIES & RATES

PACKAGE-A: Plant Internal Roads and Service Road

Sr. No.	Item Description	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
1	Cleaning of road surface including removing ash, dust, dirt for exposing existing surface including cleaning of dust from road sides, from exposed damaged Bituminous surfaces, from pot holes, etc... with wire brush and compressed air, etc... Scope of work is including the disposal of debris outside the plant premises within lead of 07 kms.	14800.000	Sqm	3.35	49,580.00
2	Earthwork in excavation below ground level up to 0.50 mtr depth in sub grade in all class of soil and also dismantling the bitumen surface, BBC, carpet & seal coat, WBM/WMM/old bituminous surface as the case may be (the work is including the disposal of debris/excavated stuff out side plant premises within 07 kilometer lead), dressing of the sides and bottom, etc. complete as directed by Engineer-in-charge.	225.000	Cum	140.92	31,707.00

Sr. No.	Item Description	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
3	Providing, Laying, spreading and compacting graded stone aggregate to wet mix macadam (WMM) at average thickness of 100mm (compacted) or as required by GIPCL and including marking of pegs for setting out as per detailed specification, premixing the material with water at Optimum Moisture Content in mechanical mix plant carriage of suitable 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 as per clause 406.	225.000	Cum	893.85	2,01,116.25
4	Providing and applying Hincol made or equivalent grade primer coat with emulsion SS-1 as directed by Engineer-in-charge on prepared existing surface or granular base with low porosity WMM/WBM including clearing of road surface and spraying primer at the rate of 7.50 kg/10sqm using mechanical means with pressure distributor and as per relevant clause of Section-500 and as directed by Engineer-in-charge.	1500.000	Sqm	66.74	1,00,110.00
5	Scarifying the existing bituminous top pavement 6cm to 10cm depth without disturbing the base including diversion of traffic, removing surplus materials and disposal to an approved dumping yard (within 12 km lead) including loading and unloading, all leads and lift, fuel, lubricant charges etc complete.	4200.000	Sqm	42.34	1,77,828.00

Sr. No.	Item Description	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
6	Providing and laying average 75 mm consolidated thick or as per GIPCL requirement of bituminous base course using BT chips of required gradation premixed with VG 30 bituminous binder @ 1.99% by weight of total mix and including applying tack coat using Emulsion RS-1 over WMM surface at rate of 4.00 kg/10 Sqm, including heating and mixing by Drum mix plant and transporting required hot material at site, spreading, laying & levelling the mix with paver at the specified line, level and camber, rolling with vibro roller and also spreading stone dust over finished surface and also including cleaning of WMM surface, providing and operating plant, paver and machinery, cost of fuel, oil lubricant, consumables and labour charges, all lead & lift, testing as required, including cost of Bitumen, aggregate and filler etc. complete all as per MORTH technical specifications and as directed by Engineer-in-charge.	40.000	MT	2,769.03	1,10,761.20
7	Providing and laying avg 30 mm thick compacted or as per GIPCL requirement of Bituminous Concrete using Emulsion RS-1 for Tack coat at 2.5 Kg./10Sq.mt. with mechanical sprayer, stone chips as per MORT&H gradation & VG-30 grade asphalt for mixing @ 5.50% (As per mix design) by weight of total mix for binder including heating the aggregate and asphalt by Drum mix/Batch mix plant and spreading the same by sensor paver finisher and consolidation with vibratory roller including providing all materials, equipment, tools and plants, oil, kerosene, fire wood, labour charges etc. complete.	1140.000	MT	5,213.62	59,43,526.80

Sr. No.	Item Description	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
8	Asphalt Painting :- Providing and applying evenly TACK COAT on road surface with bitumen 60/70 (VG-30) grade @ 5.0 Kg per 10 M2 including heating the asphalt and spraying the same using Bitumen tanker with burner facility & sprayer then spreading approved sand/aggregate/dust over the treated surfaces at the rate of 0.03 M3 per 10 M2. The rate shall be also including cleaning of surface using Air compressor/brush & disposal of dust/waste outside the premises etc. complete all as per specifications and instruction of Engineer-in-charge.	14800.000	Sqm	44.77	6,62,596.00
9	Providing and laying hot applied thermoplastic compound average 2.5 mm thick including reflectorizing glass beads at 250 grams / Sq.mt. area. Thickness of thermoplastic is exclusive of surface applied Glass beads as per I.R.C. 35. The finished surface to be level uniform and free from streaks and holes etc. completes all as per specifications and instruction of Engineer-in-charge.	180.000	Sqm	364.08	65,534.40
	Total estimated SoR value >>>				**73,42,759.65**
	GST @ 18%				**13,21,696.74**
	Total estimated SoR value with GST @ 18% >>>				**86,64,456.39**

PACKAGE-B: SLPP Colony internal roads

Sr. No.	Item Description	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
1	Cleaning of road surface including removing ash, dust, dirt for exposing existing surface including cleaning of dust from road sides, from exposed damaged Bituminous surfaces, from pot holes, etc... with wire brush and compressed air, etc... Scope of work is including the disposal of debris outside the plant premises within lead of 07 kms.	24800.000	Sqm	3.35	83,080.00
2	Earthwork in excavation below ground level up to 0.50 mtr depth in sub grade in all class of soil and also dismantling the bitumen surface, BBC, carpet & seal coat, WBM/WMM/old bituminous surface as the case may be (the work is including the disposal of debris/excavated stuff out side plant premises within 07 kilometer lead), dressing of the sides and bottom, stacking of useful materials as required, back filling with selected excavated materials, compacting the back filling, removing of surplus earth after back filling to outside premises at suitable location within 07 kms lead, etc. complete as directed by Engineer-in-charge.	50.000	Cum	140.92	7,046.00
3	Providing, Laying, spreading and compacting graded stone aggregate to **wet mix macadam (WMM)** at average thickness of 100mm thick (Compacted thickness) and including marking of pegs for setting out as per detailed specification, premixing the material with water at Optimum Moisture Content in mechanical mix plant carriage of suitable 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 etc.. complete as per details given in technical specification and as per directed by Engineer in charge.	50.000	Cum	893.85	44,692.50

Sr. No.	Item Description	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
4	Providing and applying Hincol made or equivalent grade primer coat with emulsion SS-1 as directed by Engineer-in-charge on prepared existing surface or granular base with low porosity WMM/WBM including clearing of road surface and spraying primer at the rate of 7.50 kg/10sqm using mechanical means with pressure distributor and as per relevant clause of Section-500 and as directed by Engineer-in-charge.	100.000	Sqm	66.74	6,674.00
5	Scarifying the existing bituminous top pavement 6cm to 10cm depth without disturbing the base including diversion of traffic, removing surplus materials and disposal to an approved dumping yard (within 12 km lead) including loading and unloading, all leads and lift, fuel, lubricant charges etc complete.	8800.000	Sqm	42.34	3,72,592.00
6	Providing and laying average 75 mm consolidated thick bituminous base course (BBC) using BT chips of required gradation premixed with VG 30 bituminous binder @ 1.99% by weight of total mix and including applying tack coat using Emulsion RS-1 over WMM surface at rate of 4.00 kg/10 Sqm, including heating and mixing by Drum mix plant and transporting required hot material at site, spreading, laying & levelling the mix with paver at the specified line, level and camber, rolling with vibro roller and also spreading stone dust over finished surface and also including cleaning of WMM surface, providing and operating plant, paver and machinery, cost of fuel, oil lubricant, consumables and labour charges, all lead & lift, testing as required, including cost of Bitumen, aggregate and filler etc. complete all as per MORTH technical specifications and as directed by Engineer-in-charge.	40.000	MT	2,769.03	1,10,761.20

Sr. No.	Item Description	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
7	Providing and laying avg **50 mm thick Dense graded bituminous macadam** with tack coat at 2.50 Kg/10 Sq.mt. of Emulsion RS-I by mechanical sprayer and using stone chips as per MORT&H gradation and asphalt VG-30 grade @ 4.50% (As per mix design) by total weight of mix for binder by batch mix hot laid process including transporting the mix and spreading the same by paver finisher and consolidation by vibratory roller including providing and operating required drum mix/batch mix plant & machinery cost of fuel, asphalt, oil, lubricant & labour charges etc. complete.	1010.000	MT	4,646.00	46,92,460.00
8	Providing and laying avg **30 mm thick compacted Bituminous Concrete** using Emersion RS-1 for Track coat at 2.5 Kg./10Sq.mt. with mechanical sprayer, stone chips as per MORT&H gradation & VG-30 grade asphalt for mixing @ 5.50% (As per mix design) by weight of total mix for binder including heating the aggregate and asphalt by Drum mix/Batch mix plant and spreading the same by sensor paver finisher and consolidation with vibratory roller including providing all materials, equipments, tools and plants, oil, kerosene, fire wood, labour charges etc. complete.	1850.000	MT	5,213.62	96,45,197.00
9	Asphalt Painting :- Providing and applying evenly TACK COAT on road surface with bitumen 60/70 (VG-30) grade @ 5.0 Kg per 10 M2 including heating the asphalt and spraying the same using Bitumen tanker with burner facility & sprayer then spreading approved sand/aggregate/dust over the treated surfaces at the rate of 0.03 M3 per 10 M2. The rate shall be also including cleaning of surface using Air compressor/brush & disposal of dust/waste outside the premises etc. complete all as per specifications and instruction of Engineer-in-charge.	24800.000	Sqm	44.77	11,10,296.00

Sr. No.	Item Description	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
10	Providing and laying hot applied thermoplastic compound 2.5 mm thick including reflectorizing glass beads at 250 grams / Sq.mt. area. Thickness of 2.5 mm is exclusive of surface applied. Glass beads as per I.R.C. 35. The finished surface to be level uniform and free from streaks and holes etc. completes all as per specifications and instruction of Engineer-in-charge.	500.000	Sqm	364.08	1,82,040.00
	Total estimated SoR value >>>				**1,62,54,838.70**
	GST @ 18%				**29,25,870.97**
	Total estimated SoR value with GST @ 18% >>>				**1,91,80,709.67**

GENERAL NOTE: Payment of works specified in “MT” shall be made on the basis of Weighment records from GIPCL’s weighbridge.

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SECTION-F

LIST OF ANNEXURES & FORMS

1.0 ANNEXURE-A (Whichever is applicable)

CHECKLIST FOR PASSING THE BILLS

For the month of :

1)	Work Order / P.O. No. & Contract value	:	
2)	Nature of work	:	
3)	Duration of Work Order	:	From to
4)	Maxi. No. of manpower per day deployed in the month.	:	M F Total
5)	Details of Labour License	:	Valid up to for Persons.
6)	Details of E.C Policy	:	Valid up to for Persons.
7)	Documents attached for verification for the previous month.	:	Wage & Attendance Sheets. Yes/No
			P.F Challan Yes/No
8)	Documents attached for verification (in case of Final Bill)	:	Bonus Payment Register Yes/No
		:	Leave wage register Yes/No
9)	Security Deposit / Retention Money lying with Co.	:	Yes / No if yes, Rs.

Date :

Signature of Contractor
with official stamp

2.0 ANNEXURE-B

PROFORMA FOR CONTRACT SECURITY-CUM-PERFORMANCE GUARANTEE BY SELLER / CONTRACTOR

(To be executed on non-judicial stamped paper of approximate value)

B. G. No.----------Date: ……

1. WHEREAS Gujarat Industries Power Company Limited having its office at PO: Ranoli, Dist. Vadodara – 391 350, Gujarat State, India (hereinafter referred to as "The Company/Owner" which expressions shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has entered into a contract with M/s. …….. ……(hereinafter referred to as "Contractor(s)/ Seller(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns) for ……on the terms and conditions as set out inter alia, in the Company's contract No./ work order No……..date ……and various documents forming part thereof hereinafter referred to as the "said contract" which expression include all amendments, modifications and/ or variations thereto and where as the Contractor(s)/ Seller(s) has agreed for due execution of the entire contract and guarantees its performance including any parts executed through any other agencies/ subcontractors

   AND WHEREAS one of the conditions of the "said contract" is that "contractor(s)/seller(s) shall furnish to the owner a Bank Guarantee from a bank for….% (…….percent) of the total value of the "said contract" against due and faithful performance of the "said contract" including performance guarantee obligations of the contractor(s)/seller(s) for execution/ supplies made under the "said contract."
2. We ……Bank having its branch office at ……..……..do hereby agree and undertake to pay the amount due and payable under this guarantee without any demur merely on a demand from the Company stating that in the opinion of the Company, which is final & binding, the amount claimed is due by reason of default made by the Contractor(s)/ Seller(s) in performing any of the terms & conditions of the said Contract including defect liability obligations, in fulfilling the performance guarantee obligation or loss or damage caused to or would be caused to or suffered by the Company by reason of any breach by the said Contractor (s)/ Seller(s) of any of the terms & conditions of the contract. Any such demand made on the Bank by the owner shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However our liability under this guarantee shall be restricted to Rs.----------(Rs ……only)
3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the contractor(s)/ Seller(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not

dependent or conditional on the owner proceeding against the Contractor(s)/ Seller(s).

4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said Contractor(s)/ Seller(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/ Order(s) are fulfilled.
5. This guarantee will remain valid up _____ days or _____ whichever is earlier. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the OWNER/PURCHASER and further agrees that if this guarantee is extended for a period as mutually agreed between contractor & owner/purchaser, the guarantee shall be valid for a period so extended provided that a written request for such extension is received before the expiry of validity of guarantee.
6. We ……Bank further agree with the Company that the company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract(s)/ Order(s) or to extend the time of performance by the said Contractor(s) Seller(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s)/ Seller(s) and to forbear or enforce any of the terms and conditions relating to the said Contract(s)/ Order(s) and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor (s) / Seller(s) or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the said Contractor(s)/ Seller(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.
7. Notwithstanding anything contained herein before, our liability shall not exceed Rs…….(Rupees……only) and shall remain in force till……..Unless a demand or claim under this Guarantee is made on us within three months from the date of expiry we shall be discharged from all the liabilities under this guarantee.

Date _____

……. Bank
Corporate Seal of the Bank

By its constitutional Attorney
Signature of duly Authorized person
On behalf of the Bank

With Seal & Signature code

3.0 ANNEXURE-C

PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(To be executed on non-judicial stamped paper of approximate value)

B. G. No.----------Date: ……

1. WHEREAS M/s. Gujarat Industries Power Company Limited having its Corporate Office at PO: Ranoli, Dist. Vadodara – 391 350, Gujarat State, India (hereinafter called "The Company Owner" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has issued tender paper vide its Tender No……for ---------- ---------- (hereinafter called "the said tender")to M/s……(hereinafter called the said Tenderer(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns and as per terms and conditions of the said tender, the tenderer shall submit a Bank guarantee for Rs……. (Rupees……..only) towards earnest money in lieu of cash.
2. We ……..Bank having its branch office at …… do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Company stating that in the opinion of the company which is final and binding, the amount claimed is due because of any withdrawal of the tender or any material alteration to the tender after the opening of the tender by way of any loss or damage caused to or would be caused or suffered by the Company by reason of any breach by the said tenderer(s) of any of the terms and conditions contained in the said tender or failure to accept the letter of Intent Agreement or that the amount covered under this Guarantee is forfeited. Any such demand made on the Bank by the owner shall be conclusive as regards the amount due and payable by the Bank under this guarantee, However, our liability under this guarantee shall be restricted to an amount not exceeding Rs……..(Rupees……..only).
3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the tenderer (s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the owner proceeding against the tenderer.
4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said tenderer(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/ Order(s) are fulfilled.
5. We ……..Bank Ltd. further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the finalization of the said tender and that it shall continue to be enforceable till the said tender is finally decided and order placed on the successful tenderer(s) and or till all the dues of the company under or by virtue of the said tender have been fully paid and its claims satisfied or discharged or till a duly authorized officer of the company certifies that the terms and conditions of the said tender have been fully and properly carried out by the said tenderer (s) and accordingly discharges the guarantee.

6. That the Owner Company will have full liberty without reference to us and without affecting this guarantee to postpone for any time or from time to time the exercise of any of the power of the owner under the tender.

7. Notwithstanding anything contained herein before, our liability shall not exceed Rs……. (Rupees……only) and shall remain in force till…….. (Date to be filled up shall be 180 days from the date of submission of Bid).

Date _____ ……. ……Bank
Corporate Seal of the Bank

By its constitutional Attorney
Signature of duly Authorized person
On behalf of the Bank
With Seal & Signature code

4.0 ANNEXURE-D

PERFORMA CERTIFICATE
(No claim, No arbitration)

To,
Chief General Manager (Thermal)
Gujarat Industries Power Company Limited,
Surat Lignite Power Plant,
Village: Nani Naroli, Ta. Mangrol,
Dist. Surat – 394110 (Gujarat).

Dear Sir,

Subject:_____

Ref: Work Order No.:_____Dated_____

We hereby confirm with free consent as under:-

1. The measurements certified in final bill is full and final. We accept all the certified measurements and no claim related to the measurement is left.
2. The payment certified in that or above referred LoI / contract is full and final. We accept this, and no claim related to payment is left.
3. The rates of the LoI / contract and its amendments are firm till completion of contract and extension period. We shall not claim any escalation against these rates.
4. Along with the contract referred, the ARBITRATION CLAUSE also perishes i.e. we will not resort to arbitration.
5. No extra items are left to be settled.
6. We do not have any claims against any item related to the LoI than those items certified in the bills.
7. We are accepting the recoveries or hold amount from our bills, if any, made by GIPCL against non compliance or as decided by GIPCL within terms & conditions of contract.
8. We have paid royalties, taxes for all the materials procured by us, for carrying out the works for above LoI and we indemnify GIPCL from any liability arising thereof.
9. In case of any disputes arising in future related to payment of royalties, all liabilities of settlement of dispute and its payment if any, will be borne by us.
10. We have paid wages to all the workmen who were deployed by us for carrying out above referred work as per prevailing Minimum wages act. We have also fulfilled all requirements of the P.F. Act. We have maintained all records necessary as per the statutory requirements. We hereby indemnify GIPCL from any disputes arising in future related to payment of labours, Provident Fund, etc.. and confirm that all liabilities of settlements of disputes and their payment is our responsibility.

The above confirmation will come into effect as soon as payment from final bill after due recoveries will be received by us.

For, M/S._____

Signature, Stamp and date.

5.0 ANNEXURE-E

EQUIPMENTS, TOOLS & TACKLES TO BE OWNED BY CONTRACTOR

Sr. No.	Description	Quantity
1.	Hot Mix plant / Batching Plant of adequate capacity.	1 no.
2.	Plant for WMM 60-80 TPH	1 no.
3.	Vibro Road roller minimum 10 Ton capacity	1 no.
4.	Automatic/Semi Auto sensor paver	1 no.
5.	Auto level or theodolite or total station with staff	1 set
6.	Truck Mounted Water tanker of 12000 liters capacity	1 no.
7.	Bitumen tanker with burner facility	1 no.
8.	Mechanical Bitumen sprayer	1 no.
8.	Dumpers	10 nos.
9.	Motor Grader	1 no.
10.	JCB	1 no.
11.	Compressed air machine	1 no.
12.	DG sets	1 no.

NOTE:-

The Contractor shall note that above list is not exhaustive and if any additional tools & tackles or equipment, machinery etc., are required for proper performance of the contract, the contractor shall also arrange the same immediately without any extra cost to GIPCL. Above equipments shall be in good condition for execution of work, equipments older more than 10 years and running not properly shall not be allowed to work on site.

6.0 ANNEXURE-F

GUJARAT INDUSTRIES POWER COMPANY LIMITED
(Surat Lignite Power Plant)

SCHEDULE OF DEVIATION

All the deviations from the general and special conditions of contract shall be filled by BIDDER clause by clause in this schedule.

Sr. No	SECTION	CLAUSE NO	AS PER TENDER DOCUMENT	DEVIATION

The bidder here by certifies that the above mentioned are the only deviations from GIPCL’s General/ Special Conditions of this enquiry. The bidder further confirms that in the events any other data and information presented in the BIDDER’s proposal and accompanying documents are at variance with specific requirements laid out in the GIPCL’s General /Special Conditions, then the latter shall govern and will be binding on the BIDDER for quoted price.

COMPANY SEAL
……

SIGNATURE

NAME

……

DESIGNATION ……..

COMPANY ……

DATE ……..

7.0 ANNEXURE-G

(To be submitted on Company's Letter Head)

Declaration Cum Undertaking for Safety Laws and Regulations Compliance

I _____ on behalf of ……Name of Party/Company……..hereby confirm, agree and undertake that all the Statutory and Safety Laws and Regulations of the applicable Authority/ies shall be strictly followed for all types of works at the site during the period of the Contract, if awarded to me.

Further, I ……..Name of Party/Company…… also hereby confirm, declare and undertake that there has not been any major Safety Violation and any single Fatal Accident during the execution of the contracts awarded to me covering the scope and area of work of this Tender during the period of preceding Three years.

PLACE:
DATE:

Signed and Stamped by the
Authorized Signatory
Of the Bidder \

8.0 ANNEXURE-H

(To be submitted on Company's Letter Head)

Declaration for Contractual Disputes/ Litigations

I _____ on behalf of …… (Name of Party/Company) hereby confirm that I/We have not been engaged in any Industrial Dispute(S) or have invoked legal recourse e.g. Arbitration and/or litigation against any Govt. of Gujarat Undertakings / Depts. / Authorities and Govt. of Gujarat supported companies / undertakings / organizations for the last Five (05) years. There are no ongoing/pending legal matter(s) with any of the Govt. of Gujarat Undertakings / GoG supported Companies, including GIPCL.

I/We also confirm that M/s. …… (Name of Party/Company) have not been Blacklisted/ deregistered / listed under stop Deal by any Govt. of Gujarat Undertakings / Depts. / Authorities and Govt. of Gujarat supported companies / undertakings / organizations, including GIPCL for the last Five (05) years.

The above is true, as on date, to the best of my knowledge. Any breach/ false statement in this regard shall amont to disqualification of the Bid being submitted herein.

PLACE:
DATE:

Signed and Stamped by the
Authorized Signatory of the Bidder

9.0 Form-A

List of qualifying staff to be submitted with physical documents

Sr. No.	**Name of Supervisor**	Qualification	Experience

Contractor / Authorized Representative’s
Signature, Company’s / Organization’s Seal & Date

10.0 Form-B

List of Tools & Tackles to be submitted with physical documents

Sr. No.	**Description**	Nos.	Status

Contractor / Authorized Representative’s
Signature, Company’s / Organization’s Seal & Date

11. ANNEXURE- I

PROCEDURE FOR MAKING ONLINE PAYMENT OF EMD/SD/TENDER FEE

1. For making online payment, first go to the website: **www.gipcl.com**

2. Then, click on the caption/link as can see like:

"Click here for Making Online Payment of EMD/SD, Advance for Ash, Advance for DM water etc."
(The link is visible as horizontal highlighted in "BLUE" shade below Tenders - News & Update Section).

3. After clicking the link the new page will open. On this page, No need to enter User Name and Password. Directly click on "Payment Form" given below the sign in option.

4. After clicking the "Payment Form", the vendor has to enter the details asked which will be self-explanatory. It is desired that all the information may be filled correctly so that the payment made can be tracked.

If the some required fields are not known/available, vendor may write "Not Available" and then proceed. E.g. some information like Party code is not available to vendor or GST No. not available with vendor.

Optional Note: Although mentioned as above can be proceeded with "Not available", It will be appreciated that regular vendors may obtain the party code from Materials Dept. or Concerned Person, so that the vendor can be identified. The same party code may be used for future transactions also.

After entering the details, click on SUBMIT Button.

5. The vendor/Party will be redirected to Payment Gateway.
   By selecting the desired payment mode, payment can be made:

6. After making the payment, the receipt will be generated which has to be shared with Concerned Person of GIPCL.

Important Note: Please note that for making online payment through the above gateway, the charges* as below will be applicable, which has to be borne by Vendor/Party making the Payment:

Payment Mode	**Charges**
Net Banking	Rs.9 + GST
Debit Card	NIL
Credit Card	0.75% + GST
International Card	3.00% + GST
UPI	NIL

12. ANNEXURE- J

(To be submitted on Company’s Letter Head on six monthly and with final bill)

Declaration & Undertaking for disposal of empty paint drums/barrels

I _____ on behalf of …… (Name of contractor) hereby confirm that I/We have taken all our empty paint drums & barrels to outside of SLPP premises on date _____ through our vehicle/s no./s. _____. We also declare & confirm that all these empty paint drums/barrels have been disposed as per prevailing GPCB (Gujarat Pollution Control Board) norms/guidelines and shall indemnify, keep harmless the GIPCL against any future liabilities or consequences in this regard.

The above is true, as on date, to the best of my knowledge. Any breach/ false statement in this regard shall amont to legal action, including forfeiting of our security deposit/pending dues and also to disqualification for future bid participation of GIPCL.

PLACE:
DATE:

Signed and Stamped by the
Authorized Signatory of the Contractor

13. ANNEXURE- K

CERTIFICATE OF COMPLIANCE BY CONTRACTOR

(To be submitted with each monthly bill on letter head along with labour compliance records)

Certified that M/s.....has been awarded BRC / BMC for ..... for the period of.....to ..... at Gujarat Industries Power Company Limited – Surat Lignite Power Plant, Nani Naroli. I undertake to be bound by all the provisions of the Contract Labour (Regulation & Abolition) Act 1970 and the Contract Labour (Regulation & Abolition) Rules 1972, The Employees’ Provident Funds and Miscellaneous Provisions Act 1952, Minimum Wages Act 1948, Payment of Wages Act 1936 and Payment of Bonus Act 1965 and all other applicable labour laws in so far as the provisions are applicable to me in respect of the employment of contract labour by me for the month of .....

For M/s. .....
Authorized Signature with Stamp

Place: Nani Naroli
Date :

Through : HoD

To,
DGM (HR&A)

SECTION-G
TECHNICAL SPECIFICATION

Earth Work in Excavation

Earthwork in excavation below ground level up to 0.50 mtr depth in sub grade in all class of soil and also dismantling the bitumen surface, Bituminous Base Course, carpet & seal coat, WBM/WMM/old bituminous surface as the case may be (the work is including the disposal of debris/excavated stuff out side plant premises within 07 kilometer lead), dressing of the sides and bottom, stacking of useful materials as required, back filling with selected excavated materials, compacting the back filling, removing of surplus earth after back filling to outside premises at suitable location within 07 kms lead, etc. complete as directed by Engineer-in-charge

General:

Excavation shall be carried out in any type of soil including soft rock for sub grade of road or dismantling existing bituminous surface in required shape and size as box cutting for patch repair of road. Cutting for road shall be of correct size, shape and correct side slope and gradient as per drawing/road profile chart in proper line, level and gradient at the site as directed by Engineer-in-charge.

Clearing The Site:

The site on which the structure is to be built shall be cleared, and all obstructions, loose stone, materials and rubbish of all kind, bush, wood and trees shall be removed as directed. The materials so obtained shall be the property of the GIPCL and shall be conveyed and stacked as directed up to 1.00 km lead. The roots of the trees coming in the sides shall be cut and coated with hot asphalt.

The rate of site clearance is deemed to be included in the rate of earthwork for which no extra amount will be paid.

Excavation:

Earthwork in excavation in all kinds of soil including soft rock for road in required shape and size, pipe/cable, area grading, etc including excavation below existing ground level at any depth for road of correct size, shape and correct side slope and gradient as per drawing in proper line, level and gradient at the site as directed by Engineer-in-charge .The site shall be left clean of all debris on completion. The excavation shall be carried out in correct line, level & profile of the Road. After completion of excavation up to required level, contractor have to compact excavated surface using water sprinkling and vibro roller before starting bituminous work on road. Rate for excavation is included all such operations. The payment shall be done considering the average thickness of excavation calculated based on level records or as per road profile provided by Site In charge or jointly measurement on site. No additional *payment shall be made for excavation thickness more than specified.*

Disposal of Excavated Materials:

The excavated earth shall be disposal / stacking of surplus excavated soil within radius of 7.0 kms including loading, un loading transporting, dozing, leveling and making suitable approach road as required etc complete. No materials excavated from the road or drain edge, of whatever kind they may be, are to be placed even temporarily up to 1.5 Mts. or at the distance prescribed by the Engineer, from the outer edge of excavation. All materials excavated shall remain the property of the GIPCL. Rate of excavation shall include sorting out of useful materials and stacking them separately as directed within the specified lead. Materials suitable and useful for back filling or other use shall be stacked in convenient places but not in such a way as to obstruct free movement of men, animals and vehicles or encroach upon the area required for constructional purposes.

Mode Of Measurement And Payment:

All excavation shall be measured net dimensions for purpose of payment shall be reckoned on the horizontal area of the excavation at the base considering road dimension required for particular patch repair in accordance with the Site In charge. Excavation in side slopes and working space will not be paid for. No over-excavation below required level given in road profile chart or drawing will be permitted. In such cases over-excavation shall be made good by the Contractor with fly ash or of the same class as for road and side drain and no payment shall be made for the same. Depth of excavation is to be measured from existing ground level. No additional *payment shall be made for excavation thickness more than specified.*

No extra payment shall be made for temporary pumping of water/sewage due to abnormal adverse conditions/climate. Sub soil water may envisage during execution of work. Rates shall deem to be included in rates.

The Plan area of road shall be measured for its length, breadth and depth as per level sheet (Difference between levels of OGL & bottom of excavation done at site) or jointly measured with Engineer-in-charge, limiting dimensions to those specified on plan or as directed. The rate shall be for a unit of one cubic meter and including backfilling with available soil, if require.

Providing & Laying WMM

Providing, Laying, spreading and compacting graded stone aggregate to wet mix macadam (WMM) at average thickness of 100mm thick (Compacted thickness) and including marking of pegs for setting out as per detailed specification, premixing the material with water at Optimum Moisture Content in mechanical mix plant carriage of suitable 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 etc.. complete as per details given in technical specification and as per directed by Engineer in charge.

Scope

This work shall consist of laying and compacting clean, crushed, graded aggregate and granular material, premixed with water, to a dense mass on a prepared sub grade/sub-base/base or existing pavement as the case may be in accordance with the requirements of these Specifications. The material shall be laid in one or more layers as necessary to lines, grades and cross-sections shown on the approved drawings or as direction by the Engineer.

The thickness of a single compacted Wet Mix Macadam layer shall be average 100 mm thick as per requirement on site. When vibrating or other approved types of compacting equipment are used, the compacted depth of a single layer of the sub-base course shall be approved by Engineer and joint record shall be taken on site for verifying thickness of wet mix layer for patch work.

Materials

Aggregates

Physical requirements: Coarse aggregates shall be crushed stone. If crushed gravel/shingle is used, not less than 90 percent by weight of the gravel/shingle pieces retained on 4.75 mm sieve shall have at least two fractured faces. The aggregates shall conform to the physical requirements set forth in Table 1 below.

TABLE 1

PHYSICAL REQUIREMENTS OF COARSE AGGREGATES FOR WET MIX MACADAM FOR SUB-BASE/BASE COURSES

Test	Test Method	Requirements
* Los Angeles abrasion value or	IS : 2386 (Part-4)	40 per cent (Max.)
* Aggregate Impact value	IS : 2386 (Part-4) or IS : 5640	30 per cent (Max.)
Combined Flakiness and Elongation indices (Total)	IS : 2386 (Part-1)	30 per cent (Max.)**

* Aggregate may satisfy requirements of either of the two tests.

** To determine this combined proportion, the flaky stone from a representative sample should first be separated out. Flakiness index is weight of flaky stone metal divided by weight of stone sample. Only the elongated particles be separated out from the remaining (non-flaky) stone metal. Elongation index is weight of elongated particles divided by total non-flaky particles. The value of flakiness index and elongation index so found are added up.

If the water absorption value of the coarse aggregate is greater than 2 per cent, the soundness test shall be carried out on the material delivered to site as per IS : 2386 (Part- 5).

Grading requirements: The aggregates shall conform to the grading given in Table 2

TABLE 2
GRADING REQUIREMENTS OF AGGREGATES FOR WET MIX MACADAM

IS Sieve Designation	Per cent by weight passing the IS sieve
53.00 mm	100
45.00 mm	95-100
26.50 mm	-
22.40 mm	60-80
11.20 mm	40-60
4.75 mm	25-40
2.36 mm	15-30
600.00 micron	8-22
750.00 micron	0-5

Materials finer than 425 micron shall have Plasticity Index (PI) not exceeding 6.

The final gradation approved within these limits shall be well graded from coarse to fine and shall not vary from the low limit on one sieve to the high limit on the adjacent sieve or vice versa.

Construction Operations

Preparation of base: Clause 404.3.1 of MORTH shall apply.

Provision of lateral confinement of aggregates: While constructing wet mix macadam, arrangement shall be made for the lateral confinement of wet mix. This shall be done by laying materials in adjoining shoulders along with that of wet mix macadam layer and following the sequence of operations described in Clause 407.4.1.

Preparation of mix: Wet Mix Macadam shall be prepared in an approved mixing plant of suitable capacity having provision for controlled addition of water and forced/positive mixing arrangement like pug mill or pan type mixer of concrete batching plant. For small quantity of wet mix work, the Engineer may permit the mixing to be done in concrete mixers.

Optimum moisture for mixing shall be determined in accordance with IS : 2720 (Part-8) after replacing the aggregate fraction retained on 22.4 mm sieve with material of 4.75 mm to 22.4 mm size. While adding water, due allowance should be made for evaporation losses. However, at the time of compaction, water in the wet mix should not vary from the optimum value by more than agreed limits. The mixed material should be uniformly wet and no segregation should be permitted.

Spreading of mix: Immediately after mixing, the aggregates shall be spread uniformly and evenly upon the prepared sub grade/sub-base/base in required quantities. In no case should these be dumped in heaps directly on the area where these are to be nor shall their hauling over a partly completed stretch be permitted.
The mix may be spread either by a Paver finisher or motor grader. For portions where mechanical means cannot be used, manual means as approved by the Engineer shall be used. The motor grader shall be capable of spreading the material uniformly all over the

surface. Its blade shall have hydraulic control suitable for initial adjustments and maintaining the same so as to achieve the specified slope and grade.

The Paver finisher shall be self-propelled, having the following features:

a. Loading hoppers and suitable distribution mechanism
b. The screed shall have tamping and vibrating arrangement for initial compaction to the layer as it is spread without rutting or otherwise marring the surface profile.
c. The Paver shall be equipped with necessary control mechanism so as to ensure that the finished surface is free from surface blemishes.

The surface of the aggregate shall be carefully checked with templates and all high or low sports remedied by removing or adding aggregate as may be required. The layer may be tested by depth blocks during construction. No segregation of layer and fine particles should be allowed. The aggregates as spread should be of uniform gradation with no pockets of fine materials.

Compaction: After the mix has been laid to the required thickness, grade and cross fall/camber the same shall be uniformly compacted, to the full depth with suitable roller. If the thickness of single compacted layer does not exceed 150 mm, smooth wheel roller of minimum 100 kN weight may be used. For a compacted single layer up to 150 mm, the compaction shall be done with the help of vibratory roller of minimum static weight of minimum 100 KN or equivalent capacity roller. The speed of the roller shall not exceed 5 km/h.

In portions having unidirectional cross fall/super elevation, rolling shall commence from the lower edge and progress gradually towards the upper edge. Thereafter, roller should progress parallel to the centre line of the road, uniformly over-lapping each preceding track by at least one third width until the entire surface has been rolled. Alternate trips of the roller shall be terminated in stops at least 1 m away from any preceding stop.

In portions in camber, rolling should begin at the edge with the roller running forward and backward until the edges have been firmly compacted. The roller shall then progress gradually towards the centre parallel to the centre line of the road uniformly overlapping each of the preceding track by at least one-third width until the entire surface has been rolled.

Any displacement occurring as a result of reversing of the direction of a roller or from any other cause shall be corrected at once as specified and/or removed and made good.

Along forms, kerbs, walls or other places not accessible to the roller, the mixture shall be thoroughly compacted with mechanical tampers or a plate compactor. Skin patching of an area without scarifying the surface to permit proper bonding of the added material shall not be permitted.

Rolling should not be done when the sub grade is soft or yielding or when it causes a wave-like motion in the sub-base/base course or sub grade. If irregularities develop during rolling which exceed 12 mm when tested with a 3 meter straight edge, the surface should be loosened and premixed material added or removed as required before rolling again so as to achieve a uniform surface conforming to the desired grade and cross fall. In no case should the use of unmixed material be permitted to make up the depressions.

Rolling shall be continued till the density achieved is at least 98 per cent of the maximum dry density for the material as determined by the method outlined in IS : 2720 (Part-8).

After completion, the surface of any finished layer shall be well-closed, free from movement under compaction equipment or any compaction planes, ridges, cracks and loose material. All loose, segregated or otherwise defective areas shall be made good to the full thickness of the layer and re-compacted.

Setting and drying: After final compaction of wet mix macadam course, the road shall be allowed to dry for 24 hours.

Opening to Traffic
Preferably no vehicular traffic of any kind should be allowed on the finished wet mix macadam surface till it has dried and the wearing course laid.

Surface Finish and Quality Control of Work

Surface evenness: The surface finish of construction shall conform to the requirements of Clause 902 of MORTH.

Quality control: Control on the quality of materials and works shall exercised by the Engineer in accordance with Section 900 of MORTH.

Rectification of Surface Irregularity
Where the surface irregularity of the wet mix macadam course exceeds the permissible tolerances or where the course is otherwise defective due to sub grade soil getting mixed with the aggregates, the full thickness of the layer shall be scarified over the affected area, reshaped with added premixed material or removed and replaced with fresh premixed material as applicable and re compacted in accordance with Clause 406.3. The area treated in the aforesaid manner shall not be less than 5 m long and 2 m wide. In no case shall depressions be filled up with unmixed and ungraded material or fines.

Arrangement for Traffic

During the period of construction, arrangement of traffic shall be done as per Clause 112 of MORTH.

Measurements for Payment

Wet mix macadam shall be measured as finished work in position in cubic meters considering average thickness of WMM as per requirement on site. Levels shall be taken for Top of WMM after dressing and leveling the bottom surface of excavation. The required average thickness of WMM shall be verified based on difference between top of WMM & bottom of excavation. The payment shall be done considering the average thickness of WMM calculated based on level records or jointly measured on site. *No additional payment shall be made for thickness more than required laid on site.*

Rates

The Contract unit rate for WMM sub-base/base course shall be measured in cubic meter of compacted thickness. The width of the WMM shall be as per site for actual length of Road. The thickness of WMM shall be calculated based on level record or jointly measured on site after compaction. The Contract unit rate for wet mix macadam shall be payment in full for

carrying out the required operations including full compensation for all components listed in Clause 401.8 of MORTH.

Applying Primer coat

Providing and applying hincol made or equivalent grade primer coat with emulsion SS-1 as directed by Engineer-in-charge on prepared existing surface or granular base with low porosity WMM/WBM including clearing of road surface and spraying primer at the rate of 7.50 kg/10sqm using mechanical means with pressure distributor and as per relevant clause of Section-500 and as directed by Engineer-in-charge.

PRIME COAT OVER GRANULAR BASE

Scope

This work shall consist of application of single coat of low viscosity liquid bituminous material to an absorbent granular surface preparatory to any superimposed bituminous treatment or construction.

Materials

The primer shall be cationic bitumen emulsion SS-1 grade conforming physical and chemical properties shown in Table 5. Quantity of SS-1 grade bitumen emulsion for Wet mix macadam shall be 7.50 kg/10Sq.mt. Quantity of Bitumen emulsion shall be such that it can be absorbed by the surface without causing run-off of excessive primer and to achieve desired penetration of about 8-10 mm.The normal range of spraying temperature for a bituminous emulsion shall be 20°C to 70°C.

Physical and Chemical properties of Bitumen Emulsion Grade SS-1		
Sr. No	Properties	
1	Residue on 600 micron IS Sieve, percent by mass, (Max)	0.05
2	Viscosity by Saybolt Furol viscometer, seconds: At 25° C	20-100
3	Coagulation of emulsion at low temperature	Nil
4	Storage stability after 24 h, percent (Max)	2
5	Particle charge	Weak Positive
6	Stability to mixing with cement (percentage coagulation), Max	2
7	Tests on residue:	
	A. Residue by evaporation, percent, (Min)	50
	B. Penetration 25°C / 100g/5 sec	60-350
	C. Ductility 27° C/cm, A4in	50
	D. Solubility: In trichloroethylene, percent by mass (Min)	98
8	Distillation in percent, by volume at	
	A. 190° C	20-55
	B. 225° C	30-75
	C. 260° C	40-90

	D. 315° C	60-100
9	Water content, percent by mass, (Max)	20

If Emulsion is stored for more than 90 days, its properties as mentioned in Table 5 should be checked Preferred source for bitumen emulsion is Hindustan Colas Ltd. (HINCOL) or equivalent industry which follows standards of IS: 8887-2004 and must be PSU manufacturers.

Weather and Seasonal Limitations

The bituminous primer shall not be applied on a wet surface or during dust storm or when the weather is foggy, rainy or windy. The prime coat for surface treatment should not be applied when the temperature in the shade is less than 10^{o}C.

Construction

Equipment: The primer distributor shall be pneumatic tyred self-propelled pressure distributor equipped for spraying the material uniformly at the specified rates and temperatures. Spraying by manual methods may be allowed for small areas at the discretion of the Engineer. Power broom and/or blowers may be supplemented by hand brooms as directed by the Engineer.

Preparation of road surface: The surface to be primed shall be swept clean, free from dust and shall be dry. It shall be shaped to the specified grades and section. It shall also be free from ruts, any other irregularities and segregated materials. Minor depressions and potholes may be ignored until the surface is primed, after which they shall be patched with a suitable premix material prior to the surface treatment.

Application of bituminous primer: The bituminous primer shall be sprayed/distributed uniformly over the dry surface, prepared as per Clause 3.2 of MORTH using self-propelled sprayer equipped with self-heating arrangement, suitable pump, adequate capacity compressor and spraying bar with nozzles having constant volume or pressure system capable of supplying primer at specified rates and temperatures so as to provide a uniformly unbroken spread of primer. If the surface to be primed is so dry or dusty as to cause freckling of bituminous material, it shall be lightly and uniformly sprinkled with water immediately prior to priming; however, the bituminous material shall not be applied till such time as no surface water is visible. The primer shall be applied at the rate as specified in clause 3.3 of MORTH.

Temperature of application of a primer need only be high enough to permit the primer to be effectively sprayed through the jets of the spray bar and to cover the granular base surface uniformly in the desired quantity.

During this period no traffic of any kind shall be permitted.

Laying of bituminous course over primed surface: Bituminous base course or wearing course shall be laid over the primed water bound macadam, wet mix macadam or any other granular base course, in the usual manner as per relevant Specification for the same including the requirement of tack coat as per Item specification.

Quality Control of Work

Control on the quality of materials and work shall be exercised by the Engineer in accordance with Section 900 of MORTH.

Arrangement for Traffic

During the construction operations, arrangement of traffic shall be done as per Clause 112 of MORTH.

Measurements for Payment

Prime coat shall be measured in terms of surface area of application in square meters. For verification weight of empty tanker and weight of loaded tanker will be checked in GIPCL weighbridge.

Rate

The contract unit rate for prime coat shall be payment in full for carrying out the required operations like cleaning with wire brushes, brooming, collecting unwanted and removal of same including full compensation including full compensation for:

i. Making arrangements for traffic.
ii. Supplying all materials to be incorporated in the work including all royalties, fees, rents where applicable with all leads and lifts.
iii. All labour, tools, equipment, consumables and incidentals to complete the work to the Specifications and
iv. Carrying out the required tests for quality control. Payment shall be made on the basis of the provision of prime coat at an application rate of quantity at 7.50 kg per 10SM, with adjustment, plus or minus, for the variation between this quantity and the actual quantity approved by the Engineer.

Providing & Laying Bituminous Base Course

Providing and laying average 75 mm consolidated thick Bituminous Base Course, carpet (BBC) using BT chips of required gradation premixed with VG 30 bituminous binder @ 1.99% by weight of total mix and including applying tack coat using Emulsion RS-1 over WMM surface at rate of 4.00 kg/10 Sqm, including heating and mixing by Drum mix plant and transporting required hot material at site, spreading, laying & levelling the mix with paver at the specified line, level and camber, rolling with vibro roller and also spreading stone dust over finished surface and also including cleaning of WMM surface, providing and operating plant, paver and machinery, cost of fuel, oil lubricant, consumables and labour charges, all lead & lift, testing as required, including cost of Bitumen, aggregate and filler etc. complete all as per MORTH technical specifications and as directed by Engineer-in-charge.

Description

This work shall consist of construction of a single course of average 75 mm thick bitumen macadam on a previously prepared, to the requirements of these specifications, and in conformity with the line, grade and cross section as directed by the Engineer-in-charge.

Materials Binder

The binder shall be paving bitumen of VG-30 grade as per Indian Standard Specification for paving bitumen I.S : 73/1961.

Coarse aggregates

The stone aggregates consist of crushed stones.

The coarse aggregates shall be strong, durable of fairly cubical shape, free of disintegrated pieces, organic or other deleterious matter and adherent coatings.

THE AGGREGATE MUST BE ABSOLUTELY BLACK ON IMMERSION IN WATER ALL TISSUE OF AGGREGATE SHALL BE UNIFORM IN BLACK COLOUR, NO PEDDISH OR GREEN MATERIALS WILL BE ALLOWED. The aggregates shall preferably be hydrophobic and low porosity and shall satisfy the physical requirement set forth in Table given below :-

TABLE-3

PHYSICAL REQUIREMENT OF AGGREGATES FOR BITUMINOUS MACADAM

Sr. No.	Test	Test Method	Requirements
[1]	[2]	[3]	[4]
1.	Los Angles Abrassion Value *	IS:2386 (Part-IV)	40% Maximum
2.	Aggregates Impact value *	- do -	30% Maximum
3.	Flakiness Index	IS:2386 (Part-I)	35% Maximum
4.	Stripping Value	IS : 6241	25% Maximum
5.	Soundness : (i) Loss with Sodium Sulphate (ii) Loss with Magnesium Sulphate 5 cycle.	 5 Cycles 5 Cycles	 12% Maximum 18% Maximum
6.	Water Absorption	IS:2386 (Part-III)	2% Maximum

* Aggregate may satisfy requirement of either of the two tests.

Aggregate gradation

Sieve Designation IS	% by Weight Passing the Sieve
26.50 MM	**100**
22.50 MM	**75-100**
11.20 MM	**50-85**
5.60 MM	**20-40**
2.80 MM	**0.5**

The payment shall be made at contract rate for this item.

Proportioning of materials

The binder content for premixing shall be 1.99 percent by weight of the total mix i.e. 20 kg. per ton of mix, except when otherwise directed by the Engineer-in-charge.

The quantity of aggregates shall be sufficient to yield the specified thickness after compaction.

The contractor shall get the job mix formula for the mix approved by the Engineer-in-charge before starting the work.

Variation of proportioning of materials

The contractor shall have the responsibility for ensuring proper proportioning of materials and producing an uniform mix. A variation in binder content 0.3% by weight of total mix shall however, be permissible in individual specification taken for quality control test vide MORTH Specification Section-900.

Construction Operations

Weather and Seasonal Limitations

Bitumen macadam shall not be laid during rainy or foggy weather or when the base course is damp or wet or during dust storm or when atmosphere temperature in shade is 15^{o}C or less.

Preparation of Base

The base on which Bituminous base course is to be laid shall be prepared, shaped and conditioned to the specified lines, grades and cross section in accordance with MORTH specifications, as directed by the Engineer-in-charge. The surface shall be thoroughly swept and scrapped clean of dust and other foreign matter.

Tack Coat

Scope

This work shall consist of application of a single coat of low viscosity liquid bituminous materials to an existing road surface preparatory to another bituminous construction over it as per requirement of this specification, as directed by the engineer-in-charge.

Binder

The binder used for tack coat shall be bitumen of a suitable grade appropriate to the region, traffic, rainfall and other environmental conditions as directed by the Engineer-in-charge and confirming to IS 73-217 or 454, as applicable.

Construction Operation

Preparation of Base

The surface on which the tack coat is to be applied shall be cleaned of dust and any extraneous materials before the application of the binder, by using a mechanical brooms or any other approved equipment/method as specified by the Engineer.

Application of Binder

Binder shall be heated to the temperature appropriate to the grade of bitumen used and approved by the Engineer-in-charge and spread on the base at the rate of 4 kg. per 10 sq.mt.

area. The binder shall be applied uniformly with the aid of either self-propelled or towed bitumen pressure, sprayer with self-heating arrangement and spraying nozzles arrangement, capable of spraying bitumen at specified rates and temperature so as to provide a uniformly, unbroken spread of bitumen.

The tack coat shall be applied just ahead of the oncoming bituminous construction.

Preparation and Transport of mix

Bituminous macadam mix shall be prepared in a Batching Plant of adequate capacity minimum 60 to 80 TPH and capable to yield a mix of proper and uniform quality with thoroughly coated aggregates. The plant shall be drum mix type. The plant shall have coordinated set of essential units capable of producing uniform mix within the job mix formula such as down in Appendix-A.

(a) In case of Batching Plant, the cold feed system shall have variable speed belt conveyor/or other suitable devices for regulating the accurate proportion of aggregate in to an even flood flow automatically from a Control Operation / Control Cabin.

(a) **BITUMEN CONTROL UNIT**

Capable of measuring / metering and spraying required quantity of bitumen at specified temperature with automatic synchronization of bitumen and aggregate feed.

(b) **FILLER SYSTEM**

A fines feeder system suitable to receive bagged or bulk supply of filler materials and its incorporation to the mix in the correct quantity shall be necessary auxiliary.

(c) **DUST CONTROL**

A suitable built in Dust Control Equipment for the dryer to contain the exhaust of fine dust into atmosphere for environmental control, wherever so specified by the Engineer.

(d) Suitable auxiliary bitumen Boiler of adequate capacity with self-heating arrangement and temperature control device. The boiler should be fitted with temperature indicating instruments.

The temperature of binder at the time of mixing shall be in the range of 150^{o}C to 165^{o}C and that of the aggregate in the range of 125^{o}C to 150^{o}C provided that the difference in temperature between the binder and aggregate at one time shall exceeds 25^{o}C.

Mixing shall be thorough to ensure that a homogeneous mixture is obtained in which all particles of the aggregates are coated uniformly and the discharge temperature of mix shall be between 130^{o}C and 160^{o}C.

The mixture shall be transported from the mixing plant to the point of use in suitable tripper vehicles employed for transport shall be clean and be covered in transit if so directed by the Engineer.

Spreading

The mix transported from the tipper at site to the paver shall be spread immediately by means of self-propelled mechanical automatic sensor paver with suitable screeds capable of

spreading, temping and finishing the mix, true to specified grade, line and cross section. The temperature of mix at the time of laying shall be in the range of 120°C to 135°C. The paver finisher shall have the following essential features.

(a) Loading hoppers and suitable distributing mechanism.

(b) All drives having hydrostatic drive/control.

(c) The machine shall have a hydraulically extendable screed for appropriate width requirement.

(d) The screed shall have temping and vibrating arrangement for initial compaction to the layer as is spread shall have adjustable amplitude and infinitely variably frequency.

(e) The paver shall be equipped with necessary control mechanism so as to ensure that the finished surface is free from surface blemishes.

(f) (a) The paver shall be fitted with an electronic sensing device for automatic leveling and profile control within the specified tolerance.

(b) The screed shall have the internal heating arrangement.

Rolling

After the spreading of mix, rolling shall be done by 10 Tonnes vibro power rollers of the approved equipment. Rolling should start as soon as possible after the material has been spread. Rolling shall be done with care to keep unduly roughening the pavement surface.

Rolling of the longitudinal joints shall be done immediately behind the paving operation. After this, the rolling shall commence at the edge and progress towards the centre longitudinally except that on super elevated portions and on carriage way with unidirectional cross slope, it shall progress from the lower to the upper edge parallel to the centre line of the pavement.

The initial or break down rolling shall be done with 10 tones vibro roller. As soon as it is possible to roll the mix without cracking the surface of having the mix picks up on the roller wheels. The second or intermediate rolling shall follow the break down rolling as closely as possible and be done while the paving mix is still at a temperature that will result in maximum density. The final rolling shall be done while material is still workable enough for removal of roller marks with minimum10 tonnes vibro roller. All the compaction operations i.e. break-down rolling, intermediate rolling and final rolling can be accompanied by using a vibratory roller of minimum 10 tonne vibro roller. During the initial or break down rolling and final rolling, vibratory system shall be switched off. The joints and edges shall be rolled with minimum 10 tonne vibro roller.

When the roller has passed over the whole area once, any high spots or depressions which become apparent shall be corrected by removing or adding mix materials. The rolling shall then be continued till the entire surface has been rolled to compaction, there is no crushing of aggregate and all roller marks have been eliminated. Each pass of the roller shall uniformly overlap not less than one third of the Tack made in the preceding pass. The roller wheel shall be kept damp. If necessary to avoid bituminous material from sticking to the wheel and being picked up. In no case shall fuel, lubricating will be used for this purpose, nor excessive water poured on the wheels.

Rolling operation shall be completed in every respect before the temperature of the mix falls below 80^{o}C.

Roller (s) shall not stand on newly laid material while there is a risk that, it will be deformed thereby. The edges along and transverse of the bituminous macadam laid and compacted earlier shall be cut to their full depth so as to fresh surface which shall be painted with a thin surface coat of intimate binder before the new mix is placed against it.

Surface finish and Quality Control of work

The surface finish of construction shall conform to the requirements of MORTH. Control on the quality of materials and works shall be exercised by the Engineer-in-charge in accordance standard IS practice.

The bituminous macadam shall be covered with either the next pavement course or wearing course, as the case may be without any delay. If there is to be any delay, the course shall be covered by a seal coat before allowing any traffic over it.

Arrangement for Traffic

During the period of construction, arrangement of traffic shall be done as per Clause 112 of MORTH.

Measurement for Payment

The payment shall be made on the MT basis of weigh mat slip from **GIPCL Weigh Bridge**. For verification weight of empty dumpers and weight of loaded dumper will be recorded in slip and SAP report.

Weight of mix materials will be done in presence of Weighbridge operator. The weight of each dumper shall be recorded on weigh mat slip and SAP report. Record of each dumper will be mentioned separately, which will be maintained by the Company's representatives and signed by the contractor.

The Contract unit rate for dense bitumen premix carpet shall be measured in MT. Weight shall be considered final from GIPCL Weighbridge only, no other weigh bridge will allow for final certification. No extra payment shall be made work done is excess quantity beyond the direction of Engineer-in charge.

Rate

The contract unit rate for the work shall be paid in full for carrying out the required operations including full compensation for :-

(a) Making arrangements for traffic to clause-112 of MORTH book of specifications for Roads and Bridges work, second edition, 1988 except for initial treatment to verge shoulders and construction of diversions.
(b) Preparation of base including filling of pot holes and applying tack coat.
(c) Providing all materials to be incorporated in the work including all royalties, fees, rents, where necessary and all leads and lifts.
(d) All labour, tools, equipments, plants and incidentals to complete the work to the specifications and

(e) Carrying out the work in part widths of the road where directed.
(f) Sand or dust flushed surface (if necessary) as required without any extra cost.

Providing and laying avg 50 mm thick Dense graded bituminous macadam with tack coat at 2.50 Kg/10 Sq.mt. of Emulsion RS-I by mechanical sprayer and using stone chips as per MORT&H gradation and asphalt VG-30 grade @ 4.50% (As per mix design) by total weight of mix for binder by batch mix hot laid process including transporting the mix and spreading the same by paver finisher and consolidation by vibratory roller including providing and operating required drum mix/batch mix plant & machinery cost of fuel, asphalt, oil, lubricant & labour charges etc. complete**.**

The specification describes the design and construction procedure for Dense Bituminous Macadam, (DBM). The thickness of a single layer shall be average 50 mm.

Materials

Bitumen

The bitumen shall be viscosity grade paving bitumen VG 30 complying with the Indian Standard Specification IS: 73 or as otherwise specified in the Contract. The type and grade of bitumen to be used shall be VG 30 grade of paving bitumen satisfying specified in Table 4

Table 4 Requirements for Paving Bitumen VG 30

Sr.No.	**Characteristics**	**Requirement**
1	Penetration at 25°C, 100 g, 5 s, 0.1 mm, Min	45
2	Absolute viscosity at 60°C, Poises	2400-3600
3	Kinematic viscosity at 135°C, cSt, Min	350
4	Flash point (Cleveland open cup), °C, Min	220
5	Solubility in trichloroethylene, percent, Min	99
6	Softening point (R&B), °C, Min	47
7	Tests on residue from rolling thin film oven test:	
	a) Viscosity ratio at 60°C, Max	4.0
	b) Ductility at 25°C, cm, Min	40

Aggregates

The coarse aggregates shall consist of crushed rock, crushed gravel or other hard material retained on 2.36 mm sieve. The aggregates shall satisfy the requirements specified in Table 5.

Where crushed gravel is proposed for use as aggregate, not less than 90 percent by weight of the crushed material retained on the 4.75 mm sieve shall have at least two fractured faces. Fine aggregates shall consist of crushed or naturally occurring mineral material, or a combination of the two, passing the 2.36 mm sieve and retained on the 75-micron sieve. Natural sand shall not be allowed in binder courses. However, natural sand up to 50 percent of the fine aggregate may be allowed in base

courses. The fine aggregate shall have a sand equivalent value of not less than 50 when tested in accordance with the requirement of IS: 2720 (Part 37). The plasticity index of the fraction passing the 0.425 mm sieve shall not exceed 4, when tested in accordance with IS: 2720 (Part 5).

Table 5 Physical Requirements for Coarse Aggregate for Dense Bituminous Macadam

Property	Test	Specification	Method of Test
Cleanliness (dust)	Grain size analysis	Max 5% passing 0.75 mm sieve	IS:2386 Part I
Particle shape	Combined Flakiness and Elongation Indices	Max 35%	IS:2386 Part I
Strength	Los Angeles Abrasion Value or Aggregate Impact Value	Max 35 % Max 27%	IS:2386 Part IV
Durability	Soundness: Sodium Sulphate or Magnesium Sulphate	Max 12% Max18%	IS:2386 Part V
Water Absorption	Water Absorption	Max 2%	IS:2386 Part Ill
Stripping	Coating and Stripping of Bitumen Aggregate Mix	Minimum retained coating 95%	IS:6241
Water Sensitivity	Retained Tensile Strength	Min. 80%	AASHTO 283

Aggregate Grading and Binder Content

When tested in accordance with IS:2386 Part 1 (wet sieving method), the combined grading of the coarse and fine aggregates and filler for the particular mixture shall fall within the limits given in Table 6. To avoid gap grading, the combined aggregate gradation shall not vary from the lower limit on one sieve to higher limit on the adjacent sieve.

Table 6 Composition of Dense Graded Bituminous Macadam

Nominal aggregate size 26.5 mm

Layer thickness 50 mm

IS Sieve (mm)	Cumulative % by weight of total aggregate passing
45	-
37.5	100
26.5	90-100
19	71-95
13.2	56-80
9.5	-

4.75	38-54
2.36	28-42
1.18	-
0.6	-
0.3	7-2
0.15	-
0.075	2-8

The nominal maximum particle size is the largest specified sieve size upon which any of the aggregate is retained.

Bitumen content % by mass of total mix shall be Min 4.5

Mix Design

The bitumen content required shall be determined following the Marshall mix design procedure contained in Asphalt Institute Manual MS-2. The Fines to Bitumen (F/B) ratio by weight of total mix shall range from 0.6 to 1.2. Apart from conformity with the grading and quality requirements for individual ingredients, the mixture shall meet the requirements set out in Table 7. Alternatively, minimum bitumen content recommended as given in Table 6 can be used for production of mix, provided the mix satisfies the requirements as given in Table 6, Table 7 and Table 10. The compacted layers of Dense Graded Bituminous Macadam (DBM) shall have a minimum field density equal to or more than 92% of the density based on theoretical maximum specific gravity (Gmm) obtained on the day of compaction in accordance with ASTMD 2041.

Table 7 Requirements for Dense Graded Bituminous Macadam

Properties	**Requirement**	**Test Method**
Compaction level	75 blows on each face of the specimen	
Minimum stability (kN at 60ºC)	9.0	AASHTO T245
Marshall flow (mm)	2-4	AASHTO T245
Marshall Quotient(Stability/Flow)	2-5	MS-2 and ASTM D2041
% air voids	3-5	
% Voids Filled with Bitumen (VFB)	65-75	
Coating of aggregate particle	95% minimum	IS: 6241
Tensile Strength ratio	80% Minimum	AASHTO T 283
% Voids in Mineral Aggregates (VMA)	Minimum percent voids in mineral aggregate (VMA) are set out in Table 8	

Table 8 Minimum Percent Voids in Mineral Aggregate (VMA)

Nominal Maximum Particle Size (mm)	Minimum VMA Percent Related to Design Percentage Air voids		
	3.0	4.0	5.0
26.5	11.0	12.0	13.0
37.5	10.0	11.0	12.0

Job Mix Formula

The Contractor shall submit to the Engineer for approval at least 21 days before the start the work, the job mix formula proposed for use in the works, together with the following details:

i. Source and location of all materials
ii. Proportions of all materials expressed as follows: a) Binder type, and percentage by weight of total mix b) Coarse aggregate/Fine aggregate/Mineral filler as percentage by weight of total aggregate including mineral filler
iii. A single definite percentage passing each sieve for the mixed aggregate
iv. The individual gradings of the individual aggregate fraction, and the proportion of each in the combined grading
v. The results of mix design such as maximum specific gravity of loose mix (Gmm), compacted specimen densities, Marshall stability, flow, airvoids, VMA, VFB and related graphs and test results of AASHTO T 283 Moisture susceptibility test
vi. Where the mixer is a batch mixer, the individual weights of each type of aggregate, and binder per batch
vii. Test results of physical characteristics of aggregates to be used
viii. Mixing temperature and compacting temperature.

While establishing the job mix formula, the Contractor shall ensure that it is based on a correct and truly representative sample of the materials that will actually be used in the work and that the mix and its different ingredients satisfy the physical and strength requirements of these Specifications. Approval of the job mix formula shall be based on independent testing by the Engineer for which samples of all ingredients of the mix shall be furnished by the Contractor as required by the Engineer. The approved job mix formula shall remain effective unless and until a revised Job Mix Formula is approved. Should a change in the source of materials be proposed, a new job mix formula shall be forwarded by the Contractor to the Engineer for approval before the placing of the material.

Plant Trials – Permissible Variation in Job Mix Formula

Once the laboratory job mix formula is approved, the Contractor shall carry out plant trials to establish that the plant can produce a uniform mix conforming to the approved job mix formula. The permissible variations of the individual percentages of the various ingredients in the actual mix from the job mix formula to be used shall be within the limits as specified in Table 9 and shall remain within the gradation band. These variations are intended to apply to individual specimens taken for quality control tests in accordance with MoRTH-2013 (Fifth revision) Section 900.

Table 9 Permissible Variations in the Actual Mix from the Job Mix Formula

Description	Base/binder Course
Aggregate passing 19 mm sieve or larger	±8%

Aggregate passing 13.2 mm, 9.5 mm	±7%
Aggregate passing 4.75 mm	±6%
Aggregate passing 2.36 mm, 1.18 mm, 0.6 mm	±5
Aggregate passing 0.3 mm, 0.15 mm	±4%
Aggregate passing 0.075 mm	±2%
Binder content	±0.3%
Mixing temperature	± 10°C

Construction Operations

Weather and Seasonal Limitations

Laying shall be suspended:

i. In presence of standing water on the surface;
ii. When rain is imminent, and during rains, fog or dust storm;
iii. When the base/binder course is damp;
iv. When the air temperature on the surface on which it is to be laid is less than 10° C for mixes with conventional bitumen;

Preparation of Base

The base on which Dense Graded Bituminous Material is to be laid shall be prepared in accordance with above item detail of WMM.

Tack Coat

Tack coat shall be applied at 2.50 Kg/10 Sq.mt. of Emulsion RS-I by mechanical sprayer

Mixing and Transportation of the Mix

Pre-mixed bituminous materials shall be prepared in a hot mix plant of adequate capacity and capable of yielding a mix of proper and uniform quality with thoroughly coated aggregates. Appropriate mixing temperatures are given in Table 10 of these Specifications. The difference in temperature between the binder and aggregate shall at no time exceed 14°C. In order to ensure uniform quality of the mix and better coating of aggregates, the hot mix plant shall be calibrated from time to time.

Table 10 Mixing, Laying and Rolling Temperatures for Bituminous Mixes (Degree Celsius)

Bitumen viscosity grade	Bitumen Temperature	Aggregate Temperature	Mixed material Temperature	Laying Temperature	Rolling Temperature
VG-30	150-165	150-170	150-165	140 Min	90 Min

Bituminous materials shall be transported in clean insulated and covered vehicles. An asphalt release agent, such as soap or lime water, may be applied to the interior of the vehicle to prevent sticking and to facilitate discharge of the material.

Spreading

Prior to spreading the mix, the base shall be prepared by carrying out the required operations as per MoRTH -2013 (Fifth revision) Clause 501.8 depending upon the site conditions. The essential features of the paver finisher shall conform to Annex A of IRC:27. As soon as possible after arrival at site, the materials shall be supplied continuously to the paver and laid without delay. The rate of delivery of material to the paver shall be regulated to enable the paver to operate continuously. The travel rate of the paver, and its method of operations, shall be adjusted to ensure an even and uniform flow of bituminous material across the screed, free from dragging, tearing and segregation of the material. Bituminous material shall be kept clean and uncontaminated. The only traffic permitted to run on bituminous material to be overlaid shall be that engaged in laying and compacting the next course or, where a binder course is to be sealed or surface dressed, that engaged on such surface treatment. Should any bituminous material become contaminated, the Contractor shall make it good to the satisfaction of the Engineer, in compliance with MoRTH-2013 (Fifth revision) Clause 501.8. Bituminous materials shall be laid and compacted in layers, which enable the specified thickness, surface level, regularity requirements and compaction to be achieved. Compaction of bituminous materials shall commence as soon as possible after laying. Compaction shall be substantially completed before the temperature falls below the minimum rolling temperatures stated in the relevant part of these Specifications. Rolling of the longitudinal joints shall be done immediately behind the paving operation. After this, rolling shall commence at the edges and progress towards the center longitudinally except that on super-elevated and unidirectionally cambered portions, it shall progress from the lower to the upper edge parallel to the center line of the pavement. Rolling shall continue until all roller marks have been removed from the surface. All deficiencies in the surface after laying shall be made good by the attendants behind the paver, before initial rolling is commenced. The initial or breakdown rolling shall be done with 8-10 tonne static weight smooth-wheel rollers. The intermediate rolling shall be done with 8-10 tonne static weight or vibratory roller or with a pneumatic tyre roller of 12 to 15 tonne weight, with a tyre pressure of at least 0.56 MPa. Rollers should move at a speed of not more than 5 km per hour. The roller shall not be permitted to stand on pavement which has not been fully compacted, and necessary precautions shall be taken to prevent dropping of oil, grease, petrol, diesel or other foreign matter on the pavement either when the rollers are operating or standing. The wheels of roller machine shall be in good working order, to prevent the mix from adhering to the Wheels. Only sufficient moisture to prevent adhesion between the wheels of rollers and the mix should be used. Surplus water shall not be allowed to stand on the partially compacted pavement.

Surface Finish and Quality Control of Work

Horizontal Alignment

Horizontal alignment shall be reckoned with respect to the Centre line of the carriageway. The edges of the carriageway as constructed shall be correct within a tolerance of ±10 mm there from.

Surface Levels

The levels of the Binder course shall not vary from those calculated with reference to the longitudinal and cross-profile of the road beyond the tolerances limit of ±6 mm..

Surface Evenness

The longitudinal profile shall be checked with a 3 meter long straight edge/moving straightedge as directed by the Engineer at the middle of each traffic lane along a line parallel to the center line of the road.

The maximum allowable difference between the road surface and underside of a 3 m straightedge when placed parallel with, or at right angles to the center line of the road at points decided by the Engineer shall be 6 mm for Dense graded Bituminous Macadam.

Quality Control

Control on the quality of materials and works shall be exercised by the Engineer in accordance with Section 900 MoRTH-2013 (Fifth revision) which is reproduced in chapter 20.

Arrangements for Traffic

During the period of construction, arrangements for traffic shall be made.

Measurement for Payment

The payment of Dense Graded Bituminous Materials shall be made on the MT basis of weigh mat slip from GIPCL Weigh Bridge. For verification weight of empty dumpers and weight of loaded dumper will be recorded in slip and SAP report.

Weight of mix materials will be done in presence of Weighbridge operator. The weight of each dumper shall be recorded on weigh mat slip and SAP report. Record of each dumper will be mentioned separately, which will be maintained by the Company's representatives and signed by the contractor.

The Contract unit rate for Dense Graded Bituminous Materials (DBM) shall be measured in MT. Weight shall be considered final from GIPCL Weighbridge only, no other weigh bridge will allow for final certification. No extra payment shall be made work done is excess quantity beyond the direction of Engineer-in charge.

Rate

The contract unit rate for Dense Graded Bituminous Macadam shall be payment in full for carrying out all the required operations as specified and shall include, to all components listed below,

i. Making arrangements for traffic.
ii. Cleaning of the surface using air compressor machine.

iii. Providing all materials to be incorporated in the work including arrangement for stock yards, all royalties, fees, rents where necessary and all leads and lifts
iv. Mixing, transporting, laying and compacting the mix, as specified including all wastage in cutting joints
v. All labour, tools, equipment, plant including installation of hot mix plant, power supply units and all machinery, incidental to complete the work to these Specifications
vi. Carrying out the work in part widths of the road where directed.
vii. Carrying out all tests for control of quality.
viii. The rates include for all testing, mix design, transporting and testing of samples, and cores and tests as directed by the Engineer; and
ix. The cost of all plant as specified to prove the mixing and laying methods shall be deemed to be included in the Contractor's rates.
x. Sand or dust flushed surface (if necessary) as required without any extra cost.

The rate shall include the provision of bitumen, 4.5 percent by weight of the total mixture. The variation in actual percentage of bitumen used shall be assessed and the payment adjusted accordingly.

Providing & laying average thickness of avg 30mm consolidated thick B.C.

Providing and laying avg 30 mm thick compacted Bituminous Concrete using Emersion RS-1 for Track coat at 2.5 Kg./10Sq.mt. with mechanical sprayer, stone chips as per MORT&H gradation & VG-30 grade asphalt for mixing @ 5.50% (As per mix design) by weight of total mix for binder including heating the aggregate and asphalt by Drum mix/Batch mix plant and spreading the same by sensor paver finisher and consolidation with vibratory roller including providing all materials, equipments, tools and plants, oil, kerosene, fire wood, labour charges etc. complete.

Description

This work shall be used as a wearing coat and shall not be used directly over wet mix surface, consist of laying and compacting mix seal surfacing in single course composed of suitable aggregates premixed work, a bituminous binder on a previously prepared base in accordance with the requirement of these specification.

Materials

Binder

The bitumen shall be viscosity grade paving bitumen VG 30 complying with the Indian Standard Specification IS: 73 or as otherwise specified in the Contract. The type and grade of bitumen to be used shall be VG 30 grade paving bitumen satisfying the requirements specified in below table

Table-10 Requirements for Paving Bitumen VG 30

Sr.No.	Characteristics	Requirement
1	Penetration at 25°C, 100 g, 5 s, 0.1 mm, Min	45
2	Absolute viscosity at 60°C, Poises	2400-3600

3	Kinematic viscosity at 135°C, cSt, Min	350
4	Flash point (Cleveland open cup), °C, Min	220
5	Solubility in trichloroethylene, percent, Min	99
6	Softening point (R&B), °C, Min	47
7	Tests on residue from rolling thin film oven test:	
	a) Viscosity ratio at 60°C, Max	4.0
	b) Ductility at 25°C, cm, Min	40

Coarse Aggregates

The aggregate shall consist of angular fragment, clean, hard, tough and durable rock of uniform quality throughout. The aggregate shall be obtained by crushing rock gravel or river single and be free of clan gated and flaky pieces, soft disintegrated materials and vegetation or other deleterious matter. They shall preferably be hydrophobic type.

The aggregate shall satisfy the quality requirement set forth in Table 11, except that the Index shall be limited to a maximum of 30.

TABLE - 11

PHYSICAL REQUIREMENT OF AGGREGATES

Sr. No.	Test	Test Method	Requirements
[1]	[2]	[3]	[4]
1.	Los Angles Abrasion Value *	IS:2386 (Part-IV)	35% Maximum
2.	Aggregates Impact value *	- do -	30% Maximum
3.	Flakiness Index	IS:2386 (Part-I)	35% Maximum
4.	Stripping Value	IS : 6241	25% Maximum
5.	Water Absorption	IS : 2386 (Part-III)	2% Maximum

Fine Aggregates

The fine aggregate shall consist of crusher run screenings, natural sand or a mixture of both. These shall be clean, hard, durable, uncoated, dry and free from injurious, soft or flaky pieces and organic or deleterious substances.

Aggregate Gradation

The coarse sand, fine aggregate shall be so graded or combined as to conform to the grading set forth in Table-12

TABLE - 12

AGGREGATE GRADATION FOR MIX SEAL SURFACING

Sieve Designation	Percentage by Weight Passing the Sieve Mix seal surfacing
13.20 MM	**--**
11.20 MM	**100**
5.60 MM	**52-88**
2.80 MM	**14-38**
90 Micron	**0 - 05**

Proportioning of Materials

The total quantity of the aggregates used for mix seal surfacing shall be based on design mix of bituminous concrete. The quantity of binder used for pre-mixing in terms of straight run bitumen shall be 5.50% by weight of the total mix i.e. 55KG per tonne of mix.

Before starting the work, the contractor shall get the job mix formulae for the mix approved by the Engineer-in-charge.

Construction Operations

Weather and Seasonal Limitation

Bituminous concrete shall not be laid during rainy weather or when the base course is damp or wet.

Preparation of Base

The base over which the bituminous concrete is to be laid shall be completely free from dust, caked, mud, etc. before laying the surface course. Where existing base is potholes or rutted, the irregularities shall be filled in with premixed materials and well rammed. If existing base is extremely irregular and wavy, it may be considered worthwhile to lay a bituminous leveling course of adequate thickness to avoid an excessive use of costly surface course. A tack coat at the rate of 2.5 kg per 10m2 shall be given over DBM base

Preparation and Transport of Mix

It is imperative that the Bituminous concrete be manufacturing by using Batching Plant of adequate capacity and capable to yield a mix of proper and uniform quality with thoroughly coated aggregates. The plant shall be Batching plant type. The plant shall have co-ordinated set of essential units capable of producing uniform mix within the job mix formula such as down in Appendix-A.

(a) In case of Batching Plant, the cold feed system shall have variable speed belt conveyors/or other suitable devices for regulating the accurate proportioning of aggregate to an even flood flow automatically from a Control Operation / Control Cabin.

(b) **BITUMEN CONTROL UNIT**

Capable of measuring / metering and spraying required quantity of bitumen at specified temperature with automatic synchronization of bitumen and aggregate feed.

(c) **FILLER SYSTEM**

A fines feeder system suitable to receive bagged or bulk supply of filler materials and its incorporation to the mix in the correct quantity shall be necessary auxiliary.

(d) **DUST CONTROL**

A suitable built in Dust Control Equipment for the dryer to contain the exhaust of fine dust into atmosphere for environmental control, wherever so specified by the Engineer.

(e) Suitable auxiliary bitumen Boiler of adequate capacity with self-heating arrangement and temperature control device. The boiler should be fitted with temperature indicating instruments.

The temperature of binder at the time of mixing shall be in the range of 160°C to 177°C and of the aggregate in the range of 155°C to 163°C provided also that at no time shall be the difference in temperature between the aggregates and the binder exceeds 14°C.

Mixing shall be thorough to ensure that a homogeneous mixture is obtained in which all particles of the mineral aggregates are coated uniformly.

The mix shall be transported from the mixing plant to the point of use in suitable vehicles. The vehicles employed for transport shall be clean and covered over the transit if so directed by the Engineer-in-charge.

Spreading

The mix transported from the Batching Plant to the site shall be spread by means of a self-propelled mechanical paver with suitable screeds capable of spreading temping, finishing the mix, true to specified grade, lines and cross sections. The temperature of mix at the time of laying shall be minimum 140°C Before spreading of SDBC, applied tack coat of 2.5 kg per 10 m2 on existing bitumen surface.

Table 13 Mixing, Laying and Rolling Temperatures for Bituminous Mixes (Degree Celsius)

Bitumen viscosity grade	Bitumen Temperature	Aggregate Temperature	Mixed material Temperature	Laying Temperature	Rolling Temperature
VG-30	150-165	150-170	150-165	140 Min	90 Min

Longitudinal joints and edge shall be constructed true to the delineating lines paralleled to the centre line of the road. Longitudinal joints shall be offset by at least 150 mm from those in the binder course. The joints shall be cut vertical to the thickness of the previously laid mix and the surface painted with hot bituminous before placing fresh materials.

Rolling

Immediately after spreading of mix, it shall be thoroughly compacted by rolling with a set of rollers moving at a speed not exceeding 5 KM. per hours. The initial or break down rolling shall be with 10 tonne vibro rollers and the surface finished by final rolling with 10 tonne vibro rollers or suitable pneumatic rollers.

The roller wheels shall be kept damp to prevent the mix from adhering to them but in no case shall fuel, lubricating oil be used for this purpose. Rolling shall commence longitudinally from the edge and progress towards the centre, except that on super

elevated portions, it shall progress from the lower to upper edge parallel to the fresh material with rear or mixed wheel loading so as to minimize the pushing of the mix and each pass of the roller shall uniformly overlap not less than one third of the Tack made in the preceding pass. Rolling shall continue until the entire surface has been rolled to compaction and all the roller marks eliminated.

Opening to Traffic

The traffic may be allowed immediately after completion of the final rolling when the mix has cooled down to the surrounding temperature.

Surface finish and Quality Control of work

The surface finish of construction shall conform to the requirement of MORTH specification Clause-901, control on the quality of material and works shall be exercised by the Engineer-in-charge in accordance with MORTH specification, Clause-902.

Arrangement for Traffic

During the period of construction, arrangement of traffic shall be done as per Clause 112 of MORTH.

Measurements for Payment

The payment shall be made on the MT basis of weighment slip from GIPCL Weigh Bridge. For verification weight of empty dumpers and weight of loaded dumper will be recorded in slip and SAP report.

Weight of mix materials will be done in presence of Weighbridge operator. The weight of each dumper shall be recorded on weigh mat slip and SAP report. Record of each dumper will be mentioned separately, which will be maintained by the Company's representatives and signed by the contractor.

The Contract unit rate for Bituminous concrete shall be measured in MT. Weight shall be considered final from GIPCL Weighbridge only, no other weigh bridge will allow for final certification. No extra payment shall be made work done is excess quantity beyond the direction of Engineer-in charge.

Rate

The contract unit rate for the work shall be paid in full for carrying out the required operations including full compensation for :-

(g) Making arrangements for traffic to clause-112 of MORTH book of specifications for Roads and Bridges work, second edition, 1988 except for initial treatment to verge shoulders and construction of diversions.

(h) Providing all materials to be incorporated in the work including all royalties, fees, rents, where necessary and all leads and lifts.

(i) All labour, tools, equipments, testing, plants and incidentals to complete the work to the specifications and
(j) Sand or dust flushed surface without any extra cost.

Asphalt Painting :-

Providing and applying evenly TACK COAT on road surface with bitumen 60/70 (VG-30) grade @ 5.0 Kg per 10 M2 including heating the asphalt and spraying the same using Bitumen tanker with burner facility & sprayer then spreading approved sand/aggregate/dust over the treated surfaces at the rate of 0.03 M3 per 10 M2. The rate shall be also including cleaning of surface using Air compressor/brush & disposal of dust/waste outside the premises etc. complete all as per specifications and instruction of Engineer-in-charge.

General:

The work under this section shall consist of cleaning the existing road surface and providing and applying a uniform coating of bitumen on the road surface, followed by spreading approved sand/aggregate/dust, as specified in the BOQ and as directed by the Engineer-in-Charge.

Materials:

Bitumen:

(i) The bitumen shall be of 60/70 penetration grade (VG-30), as specified in the BOQ. The grade and quality of bitumen shall be subject to approval of the Engineer-in-Charge.

(ii) The bitumen shall be of approved quality, free from water, foreign matter and other impurities, and shall be accompanied by the manufacturer's test certificate.

(iii) The bitumen shall be heated uniformly to a suitable application temperature, in accordance with the applicable specifications and the manufacturer's recommendations. Overheating or burning of bitumen shall not be permitted.

Sand / Aggregate / Dust:

(i) The sand/aggregate/dust used for spreading over the applied bitumen shall be of approved quality and shall be clean, dry and free from clay, organic matter and other harmful impurities.

(ii) The material shall be subject to approval of the Engineer-in-Charge before use.

Preparation of Road Surface:

(i) Before application of bitumen, the existing road surface shall be thoroughly cleaned using an air compressor, brushes or other suitable equipment to remove dust, loose particles, dirt and other foreign materials.

(ii) All dust and waste material generated during cleaning shall be collected and disposed of at an approved location as directed by the Engineer-in-Charge.

(iii) The surface shall be suitably prepared and made free from loose material and standing water before application.

Application of Bitumen:

(i) The bitumen shall be heated in a suitable bitumen tanker fitted with burner facilities and a spraying arrangement.

(ii) The heated bitumen shall be applied evenly and uniformly over the prepared road surface using a suitable bitumen tanker with sprayer facility.

(iii) The rate of application of bitumen shall be **5.00 kg per 10 Sqm** of road surface, as specified in the BOQ.

(iv) Care shall be taken to ensure uniform application over the entire surface without leaving untreated patches, streaks or excessive accumulation of bitumen.

(v) The application shall be carried out in a systematic manner to ensure uniform coverage and proper adhesion of the subsequently spread sand/aggregate/dust.

Spreading of Sand / Aggregate / Dust:

(i) Immediately after application of bitumen, approved sand/aggregate/dust shall be spread uniformly over the treated surface at the specified rate of **0.03 Cum per 10 Sqm**.

(ii) The material shall be spread evenly to cover the applied bitumen and to avoid excessive accumulation or uncovered patches.

(iii) The spreading shall be carried out in such a manner that a uniform finished surface is obtained.

Finished Surface:

(i) The finished surface shall have a uniform appearance with adequate and even coverage of sand/aggregate/dust over the applied bitumen.

(ii) There shall be no untreated patches, excessive accumulation of bitumen, loose heaps of sand/aggregate/dust or other visible irregularities.

(iii) Any defective or uneven portion noticed during inspection shall be rectified by the Contractor as directed by the Engineer-in-Charge, without any extra cost to GIPCL.

Equipment:

The Contractor shall deploy suitable equipment, including:

1. Bitumen tanker fitted with burner facility.
2. Mechanical bitumen spraying arrangement.
3. Air compressor for cleaning the road surface.
4. Brushes and other suitable tools for surface preparation.
5. Suitable equipment for uniform spreading of sand/aggregate/dust.

All equipment shall be maintained in proper working condition to ensure satisfactory execution of the work.

Inspection and Quality Control:

(i) The Engineer-in-Charge shall have the right to inspect the materials, surface preparation, heating and application of bitumen and spreading of sand/aggregate/dust at any stage of the work.

(ii) The Contractor shall maintain proper records of the quantity of bitumen and sand/aggregate/dust consumed with reference to the area treated.

(iii) The application rates shall be verified periodically by the Engineer-in-Charge to ensure compliance with the BOQ requirements.

Mode of Measurement: - Painting shall be measured in terms of surface area of application in square meters. For verification weight of empty tanker and weight of loaded tanker will be checked in GIPCL weighbridge.

Providing and laying hot applied thermoplastic compound average 2.5 mm thick including reflectorizing glass beads at 250 grams / Sq.mt. area. Thickness of thermoplastic is exclusive of surface applied Glass beads as per I.R.C. 35. The finished surface to be level uniform and free from streaks and holes etc. completes all as per specifications and instruction of Engineer-in-charge**.**

ROAD MARKINGS :-

General :-The colour, width and layout of road markings shall be in accordance with the Code of Practice for Road Markings IRC : 35, and as specified as directed by the Engineer.

Materials :- Road markings shall be hot applied thermoplastic compound and the material shall meet the requirements as specified below.

Hot Applied Thermoplastic Road Marking :-

General:-

(i) The work under this section consists of marking traffic stripes using a thermoplastic compound meeting the requirements specified herein.

(ii) The thermoplastic compound shall be screened extruded on to the pavement surface in a molten state by suitable machine capable of controlled preparation and laying with surface application of glass beads at a specific rate. Upon cooling to ambient pavement temperature, it shall produce an adherent pavement marking of specified thickness and width and capable of resisting deformation by traffic.

(iii) The colour of the compound shall be white or yellow as specified as directed by the Engineer.

Thermoplastic Material:

General:- The thermoplastic material shall be homogeneously composed of aggregate, pigment, resins and glass reflectorizing beads.

Requirements:-

Composition: The pigment, beads and aggregate shall be uniformly dispersed in the resin. The material shall be free from all skins, dirt and foreign objects. When applied at a temperature specified by the manufacturer and to the required thickness, the material shall set to bear traffic in not more than 15 minutes

Marking:- Each container of the thermoplastic material shall be clearly and indelibly marked with the following information:

1. The name, trade mark or other means of identification of manufacturer
2. Batch number
3. Date of manufacturer
4. Colour (white or yellow)
5. Maximum application temperature and maximum safe heating temperature.

Sampling and testing:

The thermoplastic material shall be sampled and tested in accordance with the appropriate ASTM/BS method. The contractor shall furnish to the employer a copy of certified test reports from the manufacturers of the thermoplastic material showing results of all tests specified herein and shall certify that the material meets all requirements of this specification.

REFLECTORISING GLASS BEADS :-

General :- The glass beads shall be transparent, colourless and free from milkiness, dark particles and excessive air inclusions.

Specific requirements:-

(A) Gradation :- The glass beads shall meet the gradation requirement as per relevant IS Code.

(B) Roundness :- The glass beads shall have a minimum of 70 per cent true spheres.

(C) Reflective Index :- The glass beads shall have a minimum reflective index of 1.50.

(D) Free flowing properties :- The glass beads shall be free of hard lumps and clusters and shall dispense readily under any conditions suitable for paint striping. They shall pass the free flow test.

Application properties of thermoplastic material:-

The thermoplastic material shall readily get screeded/extruded at temperatures specified by the manufacturers for respective method of application to produce a line of specified thickness which shall be continuous and uniform in shape having clear and sharp edges. The material upon heating to application temperatures, shall not exude fumes, which are toxic, obnoxious or injurious to persons or property.

Preparation:-

(i) The material shall be melted in accordance with the manufacturer's instructions in a heater fitted with a mechanical stirrer to give a smooth consistency to the thermoplastic material to avoid local overheating. The temperature of the mass shall be within the range specified by the manufacturer, and shall on no account be allowed to exceed the maximum temperature stated by the manufacturer. The molten material should be used as expeditiously as possible and for thermoplastic material which has natural binders or is otherwise sensitive to prolonged heating, the material shall not be maintained in a molten condition for more than 4 hours.

(ii) After transfer to the laying equipment, the material shall be maintained within the temperature range specified by the manufacturer for achieving the desired consistency for laying. Properties of finished road making:-

(a) The stripe shall not be slippery when wet.

(b) The making shall not lift from the pave in freezing weather.

(c) After application and proper drying, the stripe shall show no appreciable deformation or discoloration under traffic and under road temperatures up to 60 degree C.

(d) The marking shall not deteriorate by contract with sodium chloride, calcium chloride or oil drippings from traffic.

(e) The stipe or marking shall maintain its original dimensions and position. Cold ductility of the material shall be such as to permit normal movement with the road surface without chopping or cracking

SPECIAL CONDITIONS FOR BITUMINOUS SURFACE WORK WITH USE OF "BATCHING PLANT AND PAVER FINISHER"

1. The Batching Plant and accessories to be used for the work shall be in conformity with the specifications prescribed by Ministry of Transport. The plant shall be equipped with all units and accessories as per latest I.S as amended from time to time. The contractors will have to modify their plants suitably within a period of six months from the date of issue of latest I.S. Specification or codes.

2. The work shall be of laying aggregate mixed with bitumen shall start on site of work only after 7.00 hours in the morning and continue upto 17.00 hours in winter season and up to 18.30 hours in summer.

3. Quantity of bituminous aggregate mix to be laid shall be restricted to 500 tons per day for 80-120 t/hr capacity plant and may be more or less depending upon the rated capacity of the plant

4. The contractor shall invariably get the job mix formulae for the mix approved by the Engineer-in-charge before starting the work.

5. If any machinery i.e. plant and paver is break down and the work is kept closed for some period, the machinery shall not be shifted from the work site and other work shall be done during that period from the same machinery.

6. The contractor will collect on site of work only the materials approved as per the specifications of the work. The work can only be started after removing of materials of low quality collected from site of work.

APPENDIX - "A"

TECHNICAL REQUIREMENTS OF BATCHING PLANTS

GENERAL

The Batching Plant should be of reputed make and proven design, sturdy in structure and capable of producing desired quality of mix as per specification for laying bituminous road surface and should have following essential arrangements :-

1. COLD AGGREGATE FEEDER

The cold aggregate feeder arrangement should have minimum 3 bins of sufficient capacity capable to storing different sizes of aggregates and fines to ensure continuous uninterrupted supply of aggregate matching the capacity of the plant. Each bin should have independent belt feeder system driven by a variable speed motor and a control gate to ensure accurate aggregate feed to meet design mix formulae. It is pre-requisite that only properly screened and graded materials are fed to the bins.

There should be a gathering conveyor to receive and transport material discharged from this bin with separate drive arrangement.

There should be a suitable arrangement like baffle plate at the discharge end of gathering conveyor for rejection of any oversize metal above the permits of limit. The conveyor should be fitted with suitable electronic weigh device for weighing quantity of cold aggregate being fed to dryer drum.

The plant shall have a mineral filler arrangement with suitable control device. Proportion the flow of filler material into dryer drum at appropriate stage.

2. DRYER DRUM

It should be turbo-drum type with smooth rotation arrangement to give rated output and capable of reducing the moisture content of the aggregate to desirable limit of 2% to 6% and achieving hot mix temperature (up to 170^{o}C) as per the requirement) with such design that no blue smoke is emitted from the exhaust. The drum may have optional arrangement for feeding reclaimed material. There should be arrangement to restrict burner flame up to certain length in the drum before bitumen is injected.

It should be fitted with positive displacement bitumen pump derived by variable speed motor automatically controlled from control cabin, capable of feeding desired quantity of bitumen synchronized with aggregate feed system. Thermo mix fluid system or hot oil circulation system should be an in-built feature to keep bitumen pump and pipes sufficiently hot to avoid clogging of pipes.

3. BURNER

The burner used should be capable of burning the fuel efficiently and develop the required temperature. It should be fitted with remote control system, to defect flame failure, and also electric spark ignition system or some other suitable arrangement. Burner operation should have thermostatic control of flame within the specified temperature range.

4. BITUMEN HEATER

It should consist of an insulated teak of adequate capacity fitted with effective and positive control of temperature, for allowing continuous circulation of bitumen between Bitumen Heater and proportioning units. Suitable arrangements should be provided for recording the temperature at the tank and in circulation system.

5. FUEL SYSTEM

Fuel tanks should be of sufficient capacity and fitted with suitable type of fuel pump to receive the fuel from storage tank supply to line heater and burner.

6. CYCLONE SYSTEM

Cyclone unit is required to control dust discharge within the admissible standard of pollution level.

7. OPERATING CONTROL UNIT

The Batching Plant must have centralized control system with operation from a control cabin located adjacent to the Batching Plant. The control system should be capable of following:-

(i) Automatic control of speed of each bin feeder conveyor and gate so as to control and regulate the flow of various grades of material to ensure constant and accurate proportion of aggregates.

(ii) Pre-set and control the percentage of flow of aggregate and asphalt required as per design mix.

(iii) Automatic detection of plant operation, failure, display of aggregate temperature, asphalt and mix temperature, aggregate flow etc.. Fully automatic aggregate blending, bitumen / aggregate ratio control and burner control system.

(iv) Control for pre-setting the moisture content of aggregate display digitally.

(v) Digital control system should be such that if desired, it would be operated manually also.

8. SURGO SILO

The plant may have optional arrangement to store hot mix materials for at least equivalent to 30% of rated capacity to cater for any delay in loading the tippers. Temporary storage silo should have adequate automatic hydraulic unloading arrangement operated either from the control cabin or manually with necessary safety control.

SPECIAL CONDITIONS

1. CONSTRUCTION EQUIPMENT

1.1 The methodology and equipment to be used on the project shall be furnished by the contractor to the engineer well in advance of commencement of work and approval of the engineer obtained prior to its adoption and use.

1.2 The contractor shall have a trial run of the equipment for establishing its capability to achieve the laid down specifications and tolerance to the satisfaction of the engineer before commencement of work, if so desired by the engineer.

1.3 All equipments provided shall be of proven efficiency and shall be operated and maintained at all times in a manner acceptable to the engineer.

1.4 No equipment or personnel will be removed from site without permission of the engineer.

2. WORK PROGRAMME AND METHODOLOGY OR CONSTRUCTION

The contractor shall furnish his program of construction for execution of the work within the stipulated time schedule together with methodology of construction of work and obtain the approval of the Engineer prior to actual commencement of work.

3. ACTION IN CASE OF DISPROPORTIONATE PROGRESS

In case of extremely poor progress of the work at any time at any stage of work which in the opinion of the Executive Engineer cannot be made good by the contractor considering his available resources, GIPCL will get it accelerated to make up the lost time thoroughly any other agency and recover the additional cost incurred. If any in getting the work done from the contractor after informing him in writing about the action envisaged by him.

4. SETTING OUT

a. Contractor shall establish working Bench marks tied with the reference bench mark in the area soon after taking possession of the site. The working bench marks/levels should be got approved from Engineer-in-charge. Checks must be made on these bench marks periodically or as directed by Engineer-in-charge and adjustments, if any, got agreed with Engineer-in-charge and recorded. An up-to-date record shall be maintained by the Contractor and also copy supplied to Engineer-in-charge for his record.

b. The lines and levels of formation, side slopes, carriage ways and shoulders shall be carefully set out and frequently checked, care being taken to ensure that correct gradients and cross sections obtained everywhere

c. In order to facilitate the setting out of the works, the centre lines of the carriageways must accurately established by the Contractor and approved by Engineer-in-charge. It must then be accurately referenced in a manner satisfactory to the Engineer-in-charge, every 50m intervals in plain and rolling area and 20m intervals in all curve points as directed by Engineer-in-charge, with marker pegs and chainage boards set in or near the fence line, and schedule of reference dimensions shall be prepared and supplied by the Contractor to the Engineer-in-charge. The markers shall be maintained until

the works reach finished formation level and are accepted by the Engineer-in-charge.

d. The Engineer-in-charge will provide the Contractor with the data necessary for setting out of centre line. All dimensions and levels shall be verified by the contractor on the site and he shall immediately inform to Engineer-in-charge of any apparent errors or discrepancies in such dimensions or levels.

e. After obtaining approval of Engineer-in-charge, work on wet mix macadam can commence and the profile and cross sections shall form the basis for measurements and payment. The contractor shall be responsible for ensuring that all the basis traverse points are in place at the commencements of the contract and if any are missing, or appear to have been disturbed. The contractor shall make arrangements to re-establish these points. A 'Survey file containing the necessary data will be made available for this purpose. If in the opinion of the Engineer-in-charge, design modifications of the centre line or grade are advisable, the Engineer-in-charge will issue detailed instructions to the Contractor and the Contractor shall perform the modification in the field, as required, and modify the ground levels on the cross sections accordingly as many times as required. There will be no separate payment for any survey work performed by the Contractor. The cost of these services shall be considered as being included in the cost of items of work in the Bill of Quantities.

f. The work of setting out shall be deemed to be a part of general works, preparatory to the execution of work and no separate payment shall be made for the same.

g. Precision automatic levels, having a standard deviation of ±2mm per Km shall be used. Setting out of the road alignment and measurement of angles shall be done by using theodolite with traversing target, having accuracy of one second.

5. ARRANGEMENT FOR TRAFFIC DURING CONSTRUCTION

Action for arrangement for traffic during construction will be taken by the contractor envisaged in the contract documents and spelt out in clause-112 of Ministry's Specifications for Road and Bridge Works (2nd Revision).

6. QUALITY CONTROL

The norms of achieving quality of work will be on the contractor who will take actions in herewith.

MINISTRY'S SPECIFICATIONS FOR ROAD AND BRIDGE WORKS (2ND REVISION)

The Ministry's Specifications for Road and Bridge works (2nd Revision) will form part of the contract documents and the contractor will be legally bound to the various stipulations made therein unless and otherwise specifically relaxed or waived wholly or partly by any special clause in the contract document.

7. APPLICABLE MORTH SPECIFICATIONS AND STANDARDS:

The work shall be carried out in accordance with the latest applicable edition/revision of the Ministry of Road Transport & Highways (MoRTH)

Specifications for Road and Bridge Works, including all amendments, addenda, corrigenda and circulars issued up to the date of invitation of tender, wherever applicable to the nature of the work.

The relevant provisions of applicable IRC and BIS codes and standards, along with the project-specific technical specifications and BOQ provisions, shall also be complied with.

In case of any discrepancy or conflict between the above provisions, the matter shall be referred to the Engineer-in-Charge for clarification and decision in accordance with the contract provisions.
