



TENUGHAT THERMAL POWER STATION

TENUGHAT VIDYUT NIGAM LIMITED

(A GOVT. OF JHARKHAND UNDERTAKING)

PO:T.T.P.S, LALPANIA

DIST: BOKARO, JHARKHAND-829149 Website: www.tvnlonline.com

CST NO:229C | TIN :20092201429 | PAN:AACCT1197L | TAN:RCHT00177C | CIN:U40101JH1987SGC01153

NIT No. :01/TTPS/CIVIL/500000286/Cont-I/2016-17

Due on :21/01/2017

TENDER DOCUMENT

NAME OF WORK: Repair and maintenance of main road from Ambedkar chowk to main gate of PH at TTPS Lalpania.

NOTICE INVITING TENDER/Short Tender notice

For and on behalf of TENUGHAT VIDYUT NIGAM LIMITED (TVNL), tenders in two parts (Part-I Technical & Commercial Bid, Part-II Price Bid) (A-Requisite cost of Tender Document & Earnest Money of specific value to be submitted at TTPS, Account, B-Technical & Commercial & C-Price Bid) are invited online through SAP-SRM, TVNL website: webdispatcher.tvnl.in/srmprd for Part – I and Part – II from experienced, reputed and financially sound firms, for the following work of TENUGHAT THERMAL POWER STATION, Lalpania:-

Description of Work	Repair and maintenance of main road from Ambedkar chowk to main gate of Power House at TTPS Lalpania.
Estimated Amount (INR)	Rs. 85,41,827.48/-(Rupees Eighty Five Lac Forty one Thousand Eight Hundred Twenty Seven & Forty eight paise) only <i>Plus Service Tax as applicable</i>
Earnest Money (INR)	Rs. 1,71,000.00 only
Cost of Tender Documents (Non Refundable)	Rs.10,000/-(Rupees Ten Thousand)only
Downloading of Tender Paper	From 21.01.2017 www.tvnlonline.com
Last Date & Time for submission of payment of Tender Fee & EMD	25.01.2017/18:00
Last Date & Time for submission of Part-I & II of Tender	31.01.2017/16:00
Date & Time of Opening of Part-I of Tender	31.01.2017/16:30
Place of submission of bid documents (only hard copy for part-I, not mandatory)	Electrical Superintending Engineer (Contract-I), TTPS, Lalpania, Bokaro

General Terms & Conditions:

- Any type of tempering/alteration with the tender documents shall not be allowed.
- The tender document is to be downloaded from the TVNL website www.tvnlonline.com
- The tender document is to be filled at TVNL website: <https://webdispatcher.tvnl.in/srmprd>
- After advertisement of NIT, intended bidder first communicate with TTPS contact person Mob No-9031078833/email: Rajeev.kumar@tvnl.in with their firm Name, address, email, Mob no to make partner ID in SAP-SRM. ID & password will be sent in bidders email and bidder has to register at TVNL website: <https://webdispatcher.tvnl.in/srmprd> with given ID & password. Tender Fee & EMD may be submitted to AO, TTPS and communicate to contact person to allow for opening of the Bid at TVNL website to fill Part-I & Part- II by bidder.
- Bidder have to bid part-I(Technical & commercial) on TVNL website: <https://webdispatcher.tvnl.in/srmprd> and also to submit hardcopy of bid to the TTPS, ESE(Contract-I) office within 48 hr of submission deadline.
- Bidder have to bid part-II(Price part) on TVNL website: <https://webdispatcher.tvnl.in/srmprd> only.

- vii) Tender Fee & Earnest Money deposit (EMD) in shape of Demand Drafts/Pay order/ Banker's cheque drawn on any Indian Nationalized/Schedule commercial bank drawn in favour of "TENUGHAT THERMAL POWER STATION" payable at Lalpania. Tender shall not be considered without Tender Fee & EMD.
- viii) Tender shall be submitted in prescribed Performa on or before the due date & time through site "webdispatcher.tvnl.in/srmpdr" (as per given ID & password).
- ix) If any bidder quotes unworkable rates i.e. if the quoted price is less than 10% of the estimated price and is considered for placement of order, the bidder will be asked to justify the rate quoted and will have to give Performance Guarantee Bond (in addition to the Security Deposit) in the form of bank draft/bank guarantee. The amount of Performance Guarantee Bond will be equivalent to difference of his quoted price and estimated cost. Earnest money deposit of the bidder who refuses to give Performance Guarantee Bond will be forfeited and they will not be considered in re-tendering if order/contract is not finalized from the present tender. In any case of non execution of contract, the above submitted PG will also be forfeited.
- x) Tender shall be opened as per RFX published by simultaneous login by opening committee. In case the date of opening of tender happens to be holiday, the tender shall be opened on the next working day.
- xi) Any Corrigendum/Addendum/Extension of bid opening date and cancellation of NIT will be published through our website www.tvnlonline.com only and not through newspaper. The bidders are requested to visit our website regularly for any addendum/corrigendum/extension till opening of NIT.

Qualifying Requirements (QR)

1. The Bidder should have the following Qualifying Requirements (QR):

Technical QR:-

- i. The bidders should have working experience in construction of flexible pavement /bituminous concrete road of any Govt./ Semi Govt. /CPSU/SPSU/SEB's

Financial QR:-

- ii. Annual turnover (i.e. average of last three completed financial years preceding the last date of submission of Bid) at least 1.5 times of the estimated value per year (Rs.1,28,127,41.22).
- iii. The bidder should submit authenticated copies/Audited Annual Financial reports, Balance sheet & Trading, Profit & Loss Accounts, for last (preceding) 03(three) consecutive FY in support of their meeting above stipulated financial requirements. In case where audited results for the last financial year are not available, certification of financial statements from a practicing Chartered Accountant shall also be considered acceptable.
- iv. The intending bidder should have successfully completed at least one similar job in a period of last **five** years immediately preceding the deadline for submission of Bid and such work(s) should be in successful operation for a period of at least two years as on the bid deadline, wherever applicable. The successful completed similar work shall be either of the following:-
(1) Three similar nature of completed works of each value not less than 40% of the estimated value (< & =Rs.34,16,730.99)
OR
(2) Two similar nature of completed works of each value not less than 50% of the estimated value (< & =Rs.42,70,913.74)
OR
(3) One similar nature of completed works having value not less than 80% of the estimated value. (< & =Rs.68,33,461.98)
- v. Bidder may submit Bank Solvency Certificate of any Indian Nationalized /Scheduled Commercial Bank in support of their financial credibility/capacity for at least **40%** of the estimated cost (Rs.34,16,731.00).
- vi. Similar work means the bidder must have working experience of construction of flexible pavement /bituminous concrete road.
- vii. The tenderer must have valid Service Tax Registration, P. F. Code No. and Ownership/Partnership deed.

For and on behalf of
Tenughat Thermal Power Station, Lalpania
Sd/-
(J Mistry)
ESE (Contracts-I)

TENUGHAT THERMAL POWER STATION

TENUGHAT VIDYUT NIGAM LIMITED

(A GOVT. OF JHARKHAND UNDERTAKING)

PO:T.T.P.S, LALPANIA

BILL OF QUANTITY

PART- I (TECHNICAL& COMMERCIAL)

NIT No. :01/TTPS/CIVIL/50000286/Cont-I/2016-17

NAME OF WORK: Repair and maintenance of main road from Ambedkar Chowk to main gate of PH at TTPS Lalpania.

S. N.	Particulars	Details to be furnished by the Bidder (Enclose separate sheets if required)	Flag No.	Page No.
1	Name of the Bidder (Enclose Letter Head of firm)		I	
2	Address of Bidder with Telephone, Fax, E-mail		II	
3	Name of the Proprietor/ Head of the Firm and its key personnel with organizational chart giving details of qualification and experience etc.		III	
4	Details of maintenance set up with resources like permanent employees (with designation & strength), tools & tackle and other equipment with capacities		IV	
5	Name and Qualification of the site-in-charge		V	
6	Work Experience of Bidder (Attach copy of work order of similar work and its successful completion certificate during last seven years as per S. N. 1/iv of QR)	Work Order No..... Dated.....	VI	
		Completion Certificate Dated.....		
		Work Order No..... Dated.....		
		Completion Certificate Dated.....		
		Work Order No..... Dated.....		
		Completion Certificate Dated.....		
7	Financial Credibility/ Capacity (Attach Bank Solvency Certificate)		VII	
8	Average annual turnover of bidder during the last 03 financial years (Attach audited Balance Sheet & P/L Account for last three years ending 31st March, 2013)	Average annual turnover of bidder during the last 03 (three) financial years Rs.....Annual Turnover	VIII	
		F.Y. 2013-14 Rs.....		
		F.Y.-2014-15 Rs.....		
		F.Y.-2015-16 Rs.....		
9	Name & Designation of Authorized Signatory (Attach Power of Attorney if applicable)		IX	
10	Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./Public Sector) (Attach proof)		X	
11	Permanent Account Number (PAN)(Attach proof)		XI	

12	Service Tax Registration Number (copy of latest ST3 to be attached).		XII	
13	Sales Tax/Value Added Tax Registration Number / TIN (Attach proof)		XIII	
14	Labour License No. (Attach copy of registration)		XIV	
15	Character Certificate of the Head of the Firm (format of self declaration attached)		XV	
16	Particulars of Earnest Money (DD No. /BG No. & Date)		XVI	
17	Particulars of Cost of Tender Document(BOQ) (DD No. & Date)		XVII	
18	Indemnity Bond/ affidavit regarding authenticity of credentials submitted.		XVIII	
18	Other details and remarks, if any		XIX	

SELF DECLARATION of the Head of the Firm

I S/o Resident of
At.....P.O.-..... P.S.-.....
Dist..... State-.....PIN -.....do herby solemnly affirm and declare
as follows:-

1. That, I am aged about years. (Male Y/N / female Y/N).
2. That, I/we am/are proprietor/partner of the firm
At.....P.O.-.....P.S.-.....Dist..... State-
.....PIN -.....
3. That, no any CBI investigations for an offence against Government regulation and subsequently prosecuted in a court of law against me or my above said firm.
4. That, I have never been convicted by any court of law.
5. That, I am not blacklisted or warned by any works department under Jharkhand Govt. and Non-Govt. Organization.
6. That, all the above said and documents submitted are true and correct to best of my knowledge, information and belief. Verified and signed aton2017.

Signature with Firm seal

* **SELF DECLARATION** of the Head of the Firm duly filled with sign & firm seal attached with tender documents & its scanned copy may be attached online TVNL website: webdispatcher.tvnl.in/srmpd.

TENUGHAT THERMAL POWER STATION

TENUGHAT VIDYUT NIGAM LIMITED

(A GOVT. OF JHARKHAND UNDERTAKING)

PO:T.T.P.S, LALPANIA

BILL OF QUANTITY

PART- I (TECHNICAL& COMMERCIAL)

NIT No. :01/TTPS/CIVIL/50000286/Cont-I/2016-17

NAME OF WORK: Repair and maintenance of main road from Ambedkar Chowk to main gate of PH at TTPS Lalpania.

GENERAL TERMS & CONDITIONS

1. Validity of Offers: The bid submitted by bidders should remain valid for a Period of 180 days from the date of opening of Part-I unless otherwise specified.

2. Time of submission of the Tender: Special attention of the bidder is invited about the online submission at TVNL website: <https://webdispatcher.tvnl.in/srmpd> with provided ID & password before the specified date & time. Bidders are requested to submit hard copy of Part-I(Technical & Commercial) in the office within 48 hr of submission deadline.

3. Inspection of Site: Before quoting the rate, bidders are advised to visit the work site and get satisfied with scope of work for which rates are to be quoted. Engineer-in-charge may be consulted for any clarification regarding scope of work and terms of tender. Bidder should go through the terms and conditions and technical specification of work carefully and sign in all pages of the tender documents.

4. Instruction to Bidder:

- a. Bidders are advised to submit their bids strictly based on the scope of work, terms and conditions contained in the bid document and subsequent revisions/amendments, if any. The bid should be submitted along with covering letter.
- b. The bid shall be prepared and submitted by typing or printing in English on white paper in consecutively numbered pages duly signed by the authorized signatory with company seal affixed on each page. Any part of the bid, which is not specifically signed by the authorized signatory and not affixed with company seal, may not be considered for the purpose of evaluation.
- c. Copy of bid document, amendments/revisions to bid document if any, shall be signed and submitted along with the bid.
- d. Complete bid document including all enclosures should preferably be submitted in hard bond or spiral binding and all pages should be numbered and must be signed by the authorized signatory with seal of the company & flaged as given above.
- e. The **Part-II (Price Bid)** should be filled at TVNL website: webdispatcher.tvnl.in/srmpd with provided ID & password.
- f. Complete tender or tenders not submitted as per requirement as indicated in the NIT are likely to be rejected.
- g. Bidders shall submit their offer strictly as per terms and conditions of the tender document without any deviation. If at any time any of the documents/information submitted by the bidder is found to be incorrect, false or untruthful, the bid and/or the resultant order may be summarily rejected/ cancelled at the risk of the bidder.
- h. Failure to furnish all information and documentary evidence as stipulated in the bid document or submission of an offer that is not substantially responsive to the bid document in all respects shall be summarily rejected.

5. Earnest Money Deposit (EMD): Offers shall be accompanied with Earnest Money Deposit (EMD) of requisite value as specified may be submitted AO, TTPS and confirm to ESE(Contract-I).EMD may be furnished in form of Demand Draft/ Bank Guarantee from any Indian Nationalized Bank/Schedule Commercial Bank in favour of "TENUGHAT THERMAL POWER STATION" payable at Lalpania. The Bank Guarantee should remain valid for 12 months. The earnest money will be forfeited on revocation of tender before expiry of validity of the tender or on refusal to enter into the contract agreement after the award is made by TTPS to the bidder.

6. Security Deposit: The successful bidder shall have to deposit total security @ **10%** of order value in which initial security money @**5%** of the order value (including earnest money which will be retained as security money) before executing the agreement. Initial security money will be accepted as Bank Draft/ Bank Guarantee in the prescribed format not adjustable against running bill. Balance **5%** of security money will be deducted from R/A bills. The security money will be released after 6(six) months from actual completion of work and closure of contract.

7. Submission of Bill:-Final Bill/RA Bill in triplicate shall be submitted by you to the Engineer-in-Charge of work for verification & onward transmission to the account wing for pass & payment.

8. Paying Authority: The Accounts Officer, TTPS, Lalpania will be the Paying Authority.

9. Engineer-in-Charge: Concerned Executive Engineer (Civil) will be the Engineer-in-Charge for this work. The works are to be executed as per direction of Engineer-in-Charge. Anything not mentioned here in shall be decided by the Engineer-in-Charge of the work and shall be binding on the contractor.

10. Completion period: The work shall be completed within **30 (thirty) days** from the date of handing over the site. It may be intimated one week in advance by the Engineer-in-charge.

11. Safety Measures: The Contractor shall observe all the safety measures. Safety appliances have to be arranged by the Contractor at his own cost. Any compensation payable to the Contractor's employee in the event of accident or causality has to borne by the Contractor himself and TVNL will not be responsible on this accounts in any way. In case of any damage due to negligence mishandling and mal operation by the staff of contractor, the damage would be made good by the contractors at their own cost. In case of no compliance, proportionate deduction will be made from the bills of the contractor.

12. Scope of the work: Scope of the work is attached here as a guideline to execute the work. However contractor has to execute all the work as per direction of Engineer-in-Charge.

13. Agreement: The firm and his legally authorized representative having Power of Attorney will have to execute agreement with the ordering authority within 15days of issue of order in the event of placement of order on them. The agreement will have to be prepared on a non-judicial stamp paper of Rs.100/- only on Nigam's format. Bank Guarantee against Security Deposit, Performance Guarantee etc. as per order will have to be furnished well before execution of agreement. The contractor is required to produce all original paper and documents for verification before agreement failing which order will be cancelled. Contractor will not be allowed to start the work without executing the agreement.

14. Jurisdiction of Court: Any dispute between the Contractor and TVNL shall be settled in the civil court, at Bermo,at Tenughat, Jharkhand only.

15. Labour Laws: The bidder has to follow the guidelines laid under the labour law, workmen compensation. In the event of any accident / casualty to the employees of contractor, the compensation payable to the employees is to be borne by the contractor and TTPS will not be responsible in any way.

16. Taxes: All statutory taxes as applicable shall be deducted from the bill of contractor.

17. Violation of Terms & Conditions of Tender: All terms and conditions of tender shall form a part of the contract. If contractor fails to execute the work up to entire satisfaction of Engineer-in –Charge as per terms & conditions of tender, then the contract agreement can be terminated after one month prior notice and security money shall be forfeited.

18. Subletting: The successful bidder will have to execute the work directly. No subletting will be allowed.

19. Competent Authority: Managing Director TVNL reserves the right to extend the due date and to reject any/ all the tenders or to increase / reduce/ distribute the quantity of tender without assigning any reason thereof and not bound to accept the lowest tender or to assign any reason for the rejection of the lowest tender. During the execution of work in case of any dispute between the Engineer-in-Charge and contractor, the decision of General Manager cum Chief Engineer Tenughat TPS will be final and binding.

20. Plant & machinery: The Bidder/tenderer shall show evidence of ownership of major items of construction equipments or evidence of arrangement of possessing them on hire/lease/buying.

1.Tandem Road Roller 11T

2.Air compressor

3.Hot mix plant 40 to 60 TPH capacity & above

4.Bitumen pressure distributor/ Emulsion pressure distributor

5.Paver finisher hydrostatic with sensor control 100 TPH

21. Site Cleaning: The Contractor must keep clean the working area after completion of the job. Waste materials and garbage shall be disposed off by the contractor at suitable place as per the instruction of the Engineer-in-Charge. Old unserviceable spare parts if so, has to be returned by the contractor to the Central Store/Site Store of TTPS as per the instruction of the Engineer-in-Charge.

22. Facilities to be provided by TVNL:

a. Guest house facility shall be provided to the visiting engineers/officers of the Contractor on chargeable basis if available.

b. Medical facility as available at project site shall also be extended to the employee of the contractor. No payment will be made for any medicine purchased from outside or any treatment or test done outside the TTPS Hospital.

23. Penalty:Penalty:-The contractor will have to complete the entire works within the specified period. A penalty will be imposed for delay in completion of work @ 0.5 % per week or part there of delay subject to maximum 5% of the work order value.

24. Test Report: The contractor shall bear the cost of test for the quality of construction materials i.e. stone metal,moorum,chips,bitumen etc. from the approved laboratory. The payment shall be made for the bill raised against the executed Work after receiving the quality test report.

25. Empty bitumen drum in good condition shall be returned by contractor in godown failing which the rate @ 181.68/ per drum will be recovered from the contractor's bill of amount due to him in this department.

26. The contactor shall purchase 60/70 grade VG 30 bitumen him shelf from nationalized oil companies for which an authority letter shall be issued from the office of the Executive Engineer of TTPS, Lalpania. The contactor shall submit the invoice(s) of purchase bitumen with document proof within 45 hours after receiving bitumen at site to Executive Engineer

Assistant Engineer. The payment for bitumen's items be made after the verification of the specified bituminous challan from the concern oil company.

27.It shall be essential to provide the work programme (bar chart) at the time of agreement which shall be a part of agreement and the work shall be executed as per the submitted work programme.

28. Mobilization Time: The successful bidder will be given maximum 10 days time from the date of LOI/Work Order for mobilization of resources, manpower and enter in to agreement and starting the work. The contractor failing to enter in to agreement and start the work within 15 days will lose the work order and earnest money/security money and work will be allotted to L2, L3.....bidder at the rate of L1 bidder if they agree.

TENUGHAT THERMAL POWER STATION

TENUGHAT VIDYUT NIGAM LIMITED

(A GOVT. OF JHARKHAND UNDERTAKING)

PO:T.T.P.S, LALPANIA

BILL OF QUANTITY

PART- I (TECHNICAL& COMMERCIAL)

NIT No. :01/TTPS/CIVIL/500000286/Cont-I/2016-17

NAME OF WORK: Repair and maintenance of main road from Ambedkar chowk to main gate of PH at TTPS Lalpania.

SCOPE OF WORK

Same as BOQ & specification of work is attached in annexure-A , Annexure B & Annexure C.

TENUGHAT THERMAL POWER STATION

TENUGHAT VIDYUT NIGAM LIMITED

(A GOVT. OF JHARKHAND UNDERTAKING)

PO:T.T.P.S, LALPANIA

BILL OF QUANTITY

PART- II (Price part)

NIT No. :01/TTPS/CIVIL/50000286/Cont-I/2016-17

NAME OF WORK: Repair and maintenance of main road from Ambedkar Chowk to main gate of PH at TTPS Lalpania.

BILL OF QUANTITY

PART – II (PRICE PART)

To be filled at TVNL website: webdispatcher.tvnl.in/srmpd with provided ID & password .

PART-A. Repair of Main road from Old weigh bridge to main gate of PH at TTPS Lalpania.

Sl.No	Item No	Description of work	Unit	Quantity
		part a Weigh bridge to PH		
1		Hire charge of JCB	hr	10.00
2	5.1	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means.)	sqm	2450.00
3	5.2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	sqm	6650.00
4	4.9 'B.iii.a	Water Bound Macadam (Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes / Smooth 3 wheeled Steel Roller in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density.) By Mechanical Means:Grading- III (Using Screening Crushable type such as Moorum or Gravel)	m3	157.50
5	5.6.b	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) with VG-30 Grade Bulk Bitumen. for Grading I (40 mm nominal size)	cum	245.00
6	5.8 B	Bituminous Concrete (Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 % of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects) with Bulk VG30 Bitumen for Grading-II(10 mm nominal size) for Grading I (13 mm nominal size)	cum	332.50
7		Bitumen(80 kM lead)	MT	58.56
8		Stone chips (27 km lead)	cum	849.42
9		grade III	cum	143.33
10		moorum	cum	44.10
11		Bitumen(80 kM lead)	MT	2.80

Part B :Discharge channel to existing RCC Road

Item No	Description of work	Unit	Quantity
---------	---------------------	------	----------

1	5.1	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means.)	sqm	673.75
2	5.2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	sqm	2695.00
3	4.9 'B.iii.a	Water Bound Macadam (Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes / Smooth 3 wheeled Steel Roller in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density.) By Mechanical Means:Grading- III (Using Screening Crushable type such as Moorum or Gravel)	m3	40.43
4	5.6.b	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) with VG-30 Grade Bulk Bitumen. for Grading I (40 mm nominal size)	cum	67.38
5	5.8 B	Bituminous Concrete (Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 % of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects) with Bulk VG30 Bitumen. for Grading I (13 mm nominal size)for Grading-II(10 mm nominal size)	cum	134.75
6		Bitumen(80 kM lead)	MT	20.60
7		Stone chips (27 km lead)	cum	297.23
8		grade III	cum	36.79
9		moorum	cum	11.32
10		Bitumen(80 kM lead)	MT	0.94

Part C- Amedkar chowk to Ramgarh more & Sarna college to Bajrang bali Mandir

	Item No	Description of work	Unit	Quantity
1		Hire charge of JCB	hr	6.00
2	5.1	Prime coat (Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means.)	sqm	1022.00
3	5.2	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20 kg per sqm on the prepared bituminous/granular surface cleaned with mechanical broom.	sqm	3780.00
4	4.9'B.iii.a	Water Bound Macadam (Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 8-10 tonnes / Smooth 3 wheeled Steel Roller in stages to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density.) By Mechanical Means:Grading- III (Using Screening Crushable type such as Moorum or Gravel)	m3	69.30

5	5.6.b	Dense Graded Bituminous Macadam (Providing and laying dense bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5% by weight of total mix of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.) with VG-30 Grade Bulk Bitumen. for Grading I (40 mm nominal size)	cum	102.20
6	5.8 B	Bituminous Concrete (Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 % of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects) with Bulk VG30 Bitumen for Grading I (13 mm nominal size)for Grading-II(10 mm nominal size)	cum	189.00
7		Bitumen(80 kM lead)	MT	29.65
8		Stone chips (27 km lead)	cum	428.23
9		grade III (8 KM lead)	cum	63.06
10		moorum(6 km lead)	cum	19.40
11		Bitumen emulsion(80 kM lead)	MT	1.37