



MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

TENDER DOCUMENT

TENDER FOR

Name of Work : DG - PUSAD(G.C.) INDUSTRIAL AREA...Pusad Indl.
Area....Strengthening of existing infrastructure in Pusad
Growth centre.....



MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

Work Name : DG - PUSAD(G.C.) INDUSTRIAL AREA...Pusad Indl. Area....Strengthening of existing infrastructure in Pusad Growth centre.....

Index

Sr. No.	Particulars	Page From	Page To
1	Short Tender Notice(SBD)	1	1
2	Detail Tender Notice(SBD)	2	5
3	SCOPE OF WORK	6	9
4	Eligibility Criteria	10	11
5	INVITATIONS FOR BIDS (IFB)	12	13
6	SECTION 1 – INSTRUCTIONS TO BIDDERS (ITB)	14	14
7	SECTION 1 - A - GENERAL	15	18
8	SECTION 1 - B - BIDDING DOCUMENTS	19	20
9	SECTION 1 - C - PREPARATION OF BIDS	21	24
10	SECTION 1-D - SUBMISSION OF BIDS	25	25
11	SECTION 1-E - BID OPENING AND EVALUATION	26	27
12	SECTION 1-F - AWARD OF CONTRACT	28	29
13	SECTION 1-G - APPENDIX TO ITB	30	32
14	SECTION 1-H - ANNEXURE-I	33	33
15	SECTION 1-I - ANNEXURE-II	34	34
16	CLAUSE FOR ADDITIONAL PERFORMANCE SECURITY	35	35
17	Special Condition	36	36
18	Clause for use of CBuD app before carrying out any digging activity	37	37
19	SECTION 2-A-QUALIFICATION INFORMATION	38	45
20	SECTION 2 - B - FORMAT FOR BANK CERTIFICATE (LETTER OF CREDIT)	46	46
21	SECTION 2-C - AFFIDAVIT FOR NON-BLACKLISTING	47	48
22	SECTION 2-D - UNDERTAKING OF MINIMUM CASH INVESTMENT	49	49
23	SECTION 2-E - DECLARATION FOR NON-EMPLOYMENT OF EX-MIDC EMPLOYEE	50	50
24	SECTION 2-F - CERTIFICATE FROM CONTRACTOR REGARDING STUDY OF WORK SITE	51	51
25	SECTION 3 CONDITIONS OF CONTRACT	52	52
26	SECTION 3-A - GENERAL	53	56
27	SECTION 3-B - TIME CONTROL	57	57
28	SECTION 3-C - QUALITY CONTROL	58	58
29	SECTION 3-D - COST CONTROL	59	60
30	SECTION 3-E - FINISHING THE CONTRACT	61	62
31	SECTION 3-F - SPECIAL CONDITIONS OF CONTRACT	63	64
32	Section 4 - Contract Data	65	69
33	VOLUME II	70	70
34	SECTION 5 TECHNICAL SPECIFICATIONS (Detailed Item wise specification)	71	71
35	VOLUME III	72	72
36	SECTION 6 FORM OF BID	73	74

Work Name : DG - PUSAD(G.C.) INDUSTRIAL AREA...Pusad Indl. Area....Strengthening of existing infrastructure in Pusad Growth centre.....

Index

Sr. No.	Particulars	Page From	Page To
37	SECTION 7 BILL OF QUANTITIES	75	75
38	SECTION 8 SECURITIES AND OTHER FORMS	76	76
39	SECTION 8-B - BANK GUARANTEE PROFARMA FOR PERFORMANCE SECURITY AND ADDITIONAL PERFORMANCE SECURITY	77	77
40	SECTION 8-C - INDENTURE FOR SECURED ADVANCES	78	79
41	SECTION 8-D - LETTER OF ACCEPTANCE AND WORKORDER	80	81
42	SECTION 8-E - AGREEMENT FORM	82	82
43	VOLUME IV	83	83
44	VOLUME V	84	84
45	SECTION 10 DOCUMENTS TO BE FURNISHED BY BIDDER (ATTACHED)	85	85
46	VOLUME VI	86	86
47	SECTION 11	87	87
48	SECTION 11-A- CLAUSES AND GENERAL CONDITIONS	88	89
49	SECTION 11- B- CLAUSE FOR PAYMENT OF STAMP DUTY	90	90
50	SECTION 11 -C- CLAUSE FOR RECOVERY OF LABOUR CESS	91	91
51	SECTION 11 -D- CLAUSE FOR RECOVERY OF ADDITIONAL PERFORMANCE SECURITY	92	92
52	SECTION 11 -E -SPECIAL CONDITION FOR ROYALTY PAYMENT	93	93
53	SECTION 11 -F- CLAUSE FOR REIMBURSEMENT OF TAXES or DUTIES	94	94
54	SECTION 11 -G- INSURANCE OF WORK	95	95
55	SECTION 11 -H- STANDARD CEMENT CONSUMPTION STATEMENT	96	98
56	SECTION 11 -I- CEMENT VARIATION CLAUSE	99	99
57	SECTION 11 -J -MAINTENANCE GUARANTEE CLAUSE DURING DEFECT LIABILITY PERIOD	100	100
58	SECTION 11 -K- LIST OF DEFECTS REQUIRED TO BE OBSERVED AND RECTIFIED BY THE CONTRACTOR DURING THE DEFECT LIABILITY PERIOD	101	102
59	SECTION 11 -L- Price Variation clause	103	109
60	SECTION 11 -M- REGISTRATION UNDER CONTRACT LABOUR ACT -1970	110	110
61	SECTION 11 -N- DEDUCTION OF INCOME TAX	111	111
62	SECTION 11 -P- QUALITY AUDIT CLAUSE	112	112
63	SECTION 11 -Q- SPECIAL CONDITION FOR ASPHALT – CHALLAN	113	113
64	SECTION 11 -R- Clause for Idle Machinery	114	114
65	SECTION 11 -S-GOODS AND SERVICES TAX CLAUSE	115	115
66	SECTION 11 -T-COMMON CONDITIONS & ADDITIONAL CONTRACT CONDITIONS	116	121
67	SECTION 11 -U- ADDITIONAL CONTRACT CONDITIONS REGARDING STEEL & CEMENT MATERIAL SUPPLY OF CEMENT	122	123
68	SECTION 11 -V- ADDITIONAL CLAUSE FOR WORKS COSTING MORE THAN RS.50 LAKHS FOR SITE OFFICE	124	124
69	SECTION 11 - AA - GENERAL REQUIREMENTS FOR BITUMINOUS PAVEMENT LAYERS	125	138
70	Schedule A(SBD)	139	141
71	SECTION 8-A - BID SECURITY (BANK GUARANTEE PROFARMA)	142	142
72	Schedule B	143	177
73	Item Wise Specification	179	253



MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

TENDER NOTICE NO.02 / 2026-2027

E tenders are invited for the work Pusad Indl. Area....Strengthening of existing infrastructure in Pusad Growth centre..... having estimated cost of Rs.33,76,24,843.00 from the contractor who fulfil the terms & Condition in SBD (Item rate) B2 tender form.

The blank tender forms are available on MahaTenders Portal on website <<https://mahatenders.gov.in/>>. The Tenderers are requested to download the entire tender document from MahaTenders's website. The last date of submission of MahaTenderdocuments duly filled in shall be 29/06/2026 up to 11:00 Hrs. Hrs. and shall be opened on the same day if possible. For further details please see detailed tender notice on MahaTenders's website.

Right to reject any or all tenders without assigning any reason there of is kept reserved by the competent authority. Conditional tenders will be treated as non-responsive.

-----NOTICE ENDS HERE-----

Chief Engineer
Zone Nagpur



MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

DETAILED TENDER NOTICE NO. 02

E tenders are invited from eligible contractors for the following work. The details of tender are given below. An amount given below towards Earnest Money Deposit (Bid security) & cost of blank tender & application support amount should be paid as mention below and online payment for erection of Asphalt plant,if not within 50 Km radius from site location(if Applicable).

The tender will be considered only if the enclosures are in proper order. The Earnest Money Deposit (Bid security) will be forfeited in case, after the acceptance of the tender, the contractor refuses to pay the Security Deposit as noted below, within the specified time limit. Otherwise it will be refunded. The work is to be completed within the stipulated time as noted below.

1.	Name of Work	DG - PUSAD(G.C.) INDUSTRIAL AREA...Pusad Indl. Area....Strengthening of existing infrastructure in Pusad Growth centre.....
2.	Estimated Cost	Rs 33,76,24,843.00
3.	Earnest Money Deposit(Bid Security)	Pay Rs 16,88,200.00 online
4.	Application Support Amount (inclusive of GST at 18%)	Rs. 1180/- pay online (Non-refundable)
5.	Performance Security (Security Deposit)	Pay Initial security deposit Rs 67,52,500.00 or 2.00% of tendered cost whichever is higher. S. D. in the form of BG will be accepted when amount of S.D. is more than Rs.50,000 Rs 1,01,28,800.00 or 3.00% of tendered cost whichever is higher to be deducted through bills.
6.	Cost Of Blank Tender Form (inclusive of GST at 18%)	Rs 29,500.00 pay online (Non Refundable)
7.	Deposit for Asphalt Plant	Required, Rs 500000
8.	Additional Performance Security	To be paid as per additional performance security clause before issue of work order

9.	Time Period	12 Months Including monsoon
10.	Period of download of bidding document online	From 05/06/2026 06:00 PM To 29/06/2026 11:00 AM
11.	Time and date of pre-bid conference	15/06/2026 12:00 PM
12.	Queries of contractor	Will be received by E tendering upto 12/06/2026 05:00 PM
13.	Reply to queries & MIDC clarification	Will be published on the website on 19/06/2026 05:00 PM
14.	Last date and time for submission of Tender	29/06/2026 upto 11:00 AM hrs. @ MahaTender website.
15.	GEO Tagging Schedule date (As per MIDC Circular No.1, dated 09/01/2023)	
16.	Time, date of opening technical & financial bids	30/06/2026 12:00 PM
17.	Place of opening of technical & financial bids	The Office of Superintending Engineer, MIDC, Circle, 2nd Floor, Udyog Bhavan, Amravati. Udyog Bhawan, 4th Floor, Civil Lines, Nagpur-440001.
18.	Officer inviting bids	Executive Engineer
19.	Eligibility	Attached separately.
20.	Compensation	Rs 5,000.00 per day for delay in work execution/ completion of work.
21.	Validity of offer	120 days from the date of opening of the tender. (From opening of First Envelope)

IMPORTANT NOTE :

A. The information regarding the tender & the facility to download it, will be available on Mahatenders Portal on website <https://mahatenders.gov.in/>. The downloaded & duly completed tender form shall be submitted (by eligible contractors only) without making any change in the script of tender document. If after submission of tender, it is noticed that the tender script is modified in any manner whatsoever, the tender will be summarily rejected. Contractors may upload their queries before expiry of query period. The replies to the queries received before the due date, will be published on the website along with MIDC clarification (if any) which should be downloaded by the tenderer. The document of reply to the queries of the contractor and MIDC clarification (if any) will form part & parcel of the tender document & the clarifications given in the document will supersede the provisions of the tender. After the tender is accepted & offer letter is issued to the contractor, agreement shall be executed with the contractor on the tender copy prepared/printed by MIDC

B. 1. Contractor must pay online:-

- a. EMD amount. (Bid security)
- b. Cost of Blank tender form.
- c. Application support amount.
- d. Deposit for erection of asphalt plant.(if applicable)

2. The tenderer shall upload scanned from original copy / copies, of the following documents at appropriate place.

Envelope No.1 shall contain

- 1) Scanned from original copy of valid Registration Certificate in appropriate class issued by PWD (GoM)/ CIDCO/Railways/ MJP/ MES/ CPWD. OR Registration copy if Registered with company of Registrars or appropriate authority in case if unregistered contractors;
- 2) Copies of original documents defining the constitution or legal status, place of registration under partnership or companies Act and principal place of business, written power of attorney of the signatory of the Bid to commit the Bidder (only for unregistered contractor);
- 3) Experience certificates of similar nature of work as per eligibility criteria..(As per form G);
- 4) Financial statement as per form-F for bid capacity duly signed by contractor and certified by Chartered Accountant.
- 5) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years (only for unregistered contractor);
- 6) Evidence of access to line(s) of credit and availability of other financial resources facilities (25% of contract value) certified by the Bankers. (Not more than 3 months old or valid on the date of submission of bid);
- 7) Undertaking that the bidder will be able to invest minimum cash up to 25% of contract value of work during implementation of work;
- 8) Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned and disputed amount if any;
- 9) Certificate from PWD authority regarding fitness and location of Asphalt plant. If the asphalt plant is not within 50 kms. from site of work, the tenderer will have to pay the deposit for asphalt plant online. The document of ownership or rent agreement of plant shall be enclosed as specified and undertaking for shifting of asphalt plant within 50 km before one month of issue of work order. (If Asphalt condition applicable);
- 10) GSTIN Registration Certificate;
- 11) Copy of PAN card. (In case of Joint Venture PAN Card of the Lead Partner);
- 12) If tenderer desires to form JV, the notarized MOU of JV shall be uploaded as per format enclosed (JV is allowed for works costing more than Rs.100 Cr);
- 13) Scan copy of professional tax registration certificate in form PTR & PTE;
- 14) Affidavit on stamp paper of Rs.500/- duly notarized from bidder and in case of Joint Venture from all Joint Venture partners including lead partner, regarding non-blacklisting/action of deregistration as per format specified in section 2
- 15) The copy of valid electrical license issued by PWD GoM (applicable for electrical and mechanical works).
- 16) PQ A Total monetary value of construction work performed for each of the last five years as specified in section 2;
- 17) PQ B Existing commitments & on-going works as specified in section 2;
- 18) PQ C Works for which bids already submitted as specified in section 2;

- 19) PQ D Availability of key items of contractor's equipment essential for carrying out the works as specified in section 2;
- 20) PQ E Qualifications and experience of key personnel required for administration & execution of contract as specified in section 2;
- 21) PQ H Proposed Sub-contracts & firm involved as specified in section 2 (if the contractors desires to do so), in which proposals for subcontracting components of the Works amounting to more than 10 percent of the Bid Price (for each, the qualifications and experience of the identified sub contractor in the relevant field should be annexed).

NOTE: - The lowest bidder shall produce the originals of uploaded documents within 5 working days from date of opening of the tender in the office of the opening authority for verification, failing which the authority reserves the right to reject the tender.

Envelope No.2 (Financial Bid) shall contain :

- (i) Form of Bid as specified in Section 6.
- (ii) Priced Bill of Quantities for items specified in Section 7.

IMPORTANT CONDITIONS -

1. The Submission of tender shall be done in the manner prescribed by MIDC only.
2. If the contents of Envelope No.1 are not found as per the requirements of MIDC, the Envelope No.2 will not be opened at all & the tender shall be summarily rejected.
3. Tenderer should digitally sign in e-tendering system.
4. The tenderer shall be bound to keep open the offer upto 120 Days from the Last date of submission of the Bid. (i.e. from opening of First Envelope of tender)
5. The acceptance of the tender rests with the competent authority which does not bind itself to accept the lowest tender & reserves the right to reject any or all tenders without assigning any reason thereof.
6. The notes & conditions stipulated in this notice & elsewhere in the tender shall form the part and parcel of the agreement.
7. If it is found that the information submitted is misleading/ false or if it is found that certain information is hidden, then the contractor will be disqualified during any stage of tender process & even after opening of tender.
8. If any tenderer discloses/try to disclose in any manner whatsoever his offer in any other place than envelope No.2, his tender will be summarily rejected.

Chief Engineer
Zone Nagpur

SCOPE OF WORK

NAME OF WORK :- Pusad Indl. Area....Strengthening of existing infrastructure in Pusad Growth centre.....

MIDC has developed Pusad Growth Center @ Pusad, District Yavatmal in the year 1992 on 172.73 Hect. of land at village Ghatodi on Pusad- Digras S.H. road 4 KM away from Pusad city. Out of 268 carved plots 225 plots has been allotted and 49 Units has gone in production & 05 plots are under construction. The basic infrastructural facilities like Asphalted roads, PWSS, Distribution system, Street lights etc. are provided in the area. Prestigious units like M/s. Durgottam industries, Amrutdhara dairy, Vidarbha Agro Industries etc. are established their industry in this area.

It is proposed to strengthening of 7.50 m . wide roads by concrete & 5.50 m wide roads by asphaltting treatment to roads along with built up gutters along roads in Pusad indl area.

The scope of work includes

- Strengthening of 7.50 m . wide roads by concrete pavement including 200 mm thick GSB, 200 mm thick WMM, 150 mm thick DLC and 300 mm thick Pavement quality concrete. (PQC).
- Strengthening of 5.50 m . wide roads by Asphalt pavement including 200 mm thick GSB, 200 mm thick WMM, 60 mm thick DBM and 40 mm thick Bituminous concrete.(BC).Construction of built up gutter on both sides of road in M20 grade concrete.

E&M Works:-

1) Providing / Erection / Commissioning of Street Lights along Roads in Pusad Industrial Area

The scope includes design, supply, erection, testing and commissioning of complete street lighting system along internal roads of Pusad Industrial Area. The work shall generally comprise:

- Supply and erection of 325 Number of street light poles of approved 8 Mtr height and configuration.
- Supply and installation of 325Number of 90 Watt LED street light fittings with all accessories.
- Construction of pole foundations including excavation, PCC, reinforcement and grouting.
- Supply and laying of underground cables / overhead wiring as required.
- Supply and installation of feeder pillars, junction boxes, earthing system and protection equipment.
- Providing cable trenches, sand cushioning, protective covering and route markers.
- Testing and commissioning of the entire street lighting network.
- Obtaining necessary statutory approvals, if required.
- Handing over complete functional system in all respects.

2) Providing / Erection / Commissioning of High-Mast Lighting at Prominent Locations in Pusad Industrial Area

The work includes design, manufacture, supply, erection, testing and commissioning of high-mast lighting systems at identified locations within the industrial area. The scope shall include:

- Supply and erection of high-mast towers of 12.5 Mtr specified height with head frame arrangement.

- Supply and installation of 120 Watt LED flood light luminaires complete with control gear.
- Supply and erection of motorized lowering / raising mechanism including winch, wire rope and accessories.
- Construction of RCC foundation suitable for high-mast structures.
- Supply and laying of power cables from feeder point to high-mast panel.
- Supply and erection of control panel, feeder pillar and protection devices.
- Earthing and lightning protection arrangements.
- Testing, commissioning and trial operation of complete system.
- Submission of test certificates and as-built drawings.

3) Supplying & Erecting 100 kVA Transformer with Underground Cable Work at WTP and Jackwell in Pusad Industrial Area

The scope of work includes supply, erection, testing and commissioning of 100 kVA transformer along with associated HT/LT and underground cable works for Water Treatment Plant (WTP) and Jackwell. The work shall include:

- Supply and installation of 100 kVA transformer complete with all accessories.
- Construction of transformer plinth / foundation.
- Supply and erection of HT and LT panels as required.
- Supply and laying of underground HT/LT power cables including excavation, sand bedding and protective coverings.
- Cable termination using suitable glands and lugs.
- Earthing system for transformer, panels and associated equipment.
- Supply and installation of danger boards, fencing and safety accessories.
- Testing of transformer, cables and electrical system.
- Coordination with power supply authority for energization, wherever applicable.
- Commissioning and handing over of complete installation.

4) Supplying, Erecting, Testing and Commissioning of 100 kVA Diesel Generating Set with Alternator at WTP and Jackwell in Pusad Industrial Area

The work comprises SITC of diesel generator set with acoustic enclosure and all allied works for standby power supply at WTP and Jackwell. The scope includes:

- Supply and installation of 100 kVA diesel generating set with alternator.
- Supply of acoustic enclosure, base frame and anti-vibration mountings.
- Construction of DG foundation and associated civil works.
- Supply and installation of AMF/control panel with protections and instrumentation.
- Fuel tank, exhaust piping, silencer and exhaust insulation works.
- Supply and laying of power and control cables.
- Earthing arrangements for DG set and panel.
- Testing, trial run and commissioning of DG set under load conditions.
- Obtaining statutory approvals, if required.
- Training to operating personnel and submission of O&M manuals.

5) Supplying, Erecting, Testing and Commissioning of Vertical Turbine Pump Set, LT Panel Board & Allied Materials for Pure Water Pump House at WTP, Pusad Industrial Area

The scope includes SITC of pumping machinery, electrical panels and associated accessories for Pure Water Pump House at WTP. The work shall generally include:

- Supply and installation of 25 HP Vertical Turbine (V.T.) pump set of specified capacity and head.
- Supply and erection of suitable motor, coupling and base arrangement.
- Supply and installation of LT panel board with switchgear, starters, metering and protections.
- Supply and installation of valves, pipes, fittings and allied accessories.
- Supply and laying of power and control cables.
- Earthing system for motors, panels and equipment.
- Alignment, testing and trial operation of pump sets.
- Hydraulic and electrical testing of complete system.
- Commissioning and handing over in satisfactory working condition.
- Submission of test certificates, manuals and as-built drawings.

Note :-

a) Quality Audit for the subject work will be conducted through NIT/VJTI/COEP/Equivalent Govt Engineering colleges and the necessary expenses of quality audit will be borne by the concern contractor.

b) If any damages takes place to existing services like water lines, OFC, power lines, same shall be repaired by contractor at his own cost. Also scope of work includes submission of weight slip Challans for material no any extra cost. Work shall be executed as per PWD's detail specifications & directions of engineer-in-charge & submit record drawing along with 3 sets to MIDC office

c) The Defect Liability Period for Concrete Road should be considered as 60 Months from the date of completion of concrete road and 36 Months for Asphalt Road from the date of completion of asphalt road.

d) The payment of royalty charges will be paid separately on production of paid Royalty challans and confirmation from royalty department. The all relevant GOM provisions regarding royalty charges will be applicable to contractor.

e) Required of Rs.500/- stamp paper for shortage of fund(Special Condition Clause).

f) Contractor shall quote on Part A i.e. work portion. The quoted offer is not applicable for quality testing and royalty charges.

g) The contractor shall provide good condition vehicle(AC Car) along with driver and fuel for MIDC's staff. The contractor shall provide a site office for MIDC's staff of at least 3.50 M x 5.00 M size with office furniture like 2 tables, 10 chairs, 1 cupboard, 1 laptop, Internet connection, 1 printer and required office stationary. The office shall be dismantled after completion of the work as directed by Engineer-In-Charge.

h) For Pumping Machinery :- The agency has to quote the rate after reducing the rebate applicable for the old pump.

i) Certificate from PWD authority regarding fitness and location of Asphalt & RMC plant. If the Asphalt & RMC plant is not within 50 kms. from site of work, the tenderer will have to pay of Rs. 5,00,000.00 each for the deposit of

Asphalt & RMC plant in form of D.D. The document of ownership or rent agreement of plants shall be enclosed as specified and undertaking for shifting of Asphalt & RMC plant within 50 km before one month of start of Asphalt & RMC work.

j) D.D./Bank Guarantee details-
Executive Engineer MIDC Amravati.
Bank Name- ICICI Bank
Bank Account No.- 777705878081
Bank IFSC Code- ICIC0000428.

Eligibility Criteria :-

The Registered / Unregistered (Civil) contractor having experience of successfully completed works in Govt./ Semi Govt. / Local bodies during any of the last five financial Years (The work Experience Certificate shall be issued by the Authority not below the rank of the Executive Engineer).

(i) Roads (WBM, GSB, WMM & all types of asphaltting works)

a. Single work of WBM/GSB/ WMM/ all types of asphaltting costing not less than Rs. 544.00 Lakhs.

OR

b. Total cost of 2 works of WBM/GSB/ WMM/ all types of asphaltting shall not be less than Rs.761.00 Lakhs.

OR

c. Total cost of 3 works of WBM/GSB/ WMM/ all types of asphaltting shall not be less than Rs.870.00 Lakhs.

(ii) Concrete Roads

a. Single work of concrete road work or airport pavement costing not less than Rs. 876.00 Lakhs.

OR

b. Total cost of 2 concrete road works or airport pavement works shall not be less than Rs.1226.00 Lakhs.

OR

c. Total cost of 3 concrete road works or airport pavement works shall not be less than Rs.1402.00 Lakhs.

(iii) Street Lights Works

a. Agencies who have successfully completed single similar type of work costing not less than Rs. 90.00 Lakhs.

OR

b. Agencies who have successfully completed two similar type of works total costing not less than Rs. 126.00 Lakhs.

OR

c. Agencies who have successfully completed three similar type of works total costing not less than Rs. 144.00 Lakhs.

B) For Other Sub Works

a) RCC power cable duct Qty not less than 1650 m.

The private work experience .

The experience of Private Works shall also be considered for the works costing more than Rs.5.00 crores only subject to following.

1. Only 50 % amount or magnitude of the work completion certificate issued by Private entity shall be considered as work done amount or magnitude and this amount or magnitude so arrived shall be considered for deciding eligibility as mentioned above.

2. The tenderer shall submit .

a) Copy of work order or registered agreement for the work completed along with the certificate of the Employer in

prescribed format.

b) Certificate from Architect / C.A. confirming the amount of the work executed is included in the Annual account of tenderer.

Note: i) The up-dation of the amount of completed work should be done at 10% per annum (compounded) by multiplying the values with applicable factor i.e. 1.1, 1.21 or 1.331 as the case may be

INVITATIONS FOR BIDS (IFB)

Date:

Tender ID:

1. The Executive Engineer, MIDC.....Division invites bids for the construction of works detailed in the table.

TABLE

Work No.	Name of Work	Approximate value of work	Bid Security	Cost of Blank Tender Form	Period of Completion (Months)
		(Rs.)	(Rs.)	(Rs.)	
	Pusad Indl. Area....Strengthenin g of existing infrastructure in Pusad Growth centre.....	33,76,24,843.00	16,88,200.00		12

1. The period of downloading of tender is as per detailed tender notice.
2. Before submitting the bid, the bidders shall mandatorily register and enlist themselves (Vender registration), on www.mahatenders.gov.in Further, the bidders shall follow the operating procedure as may be prescribed on the said website.
3. The period of availability of online bid / date and time of Pre-bid meeting / date and time of online bid submission and date and time of opening of bids are given in the detailed tender notice.
4. Bidding documents can be downloaded from the website www.mahatenders.gov.in the documents downloaded from the web site should not be tampered, and if any such tempering is detected before or after the opening of bids, the bidder shall be penalized and black listed.
5. Tender form, conditions of contract, specifications and contract drawings can be downloaded from the Mahatender portal website www.mahatenders.gov.in The Contractors shall make online payment as specified in the detailed tender notice using payment gateway. The fees of tender document will be non refundable.
6. Before submission of on-line bids, bidders must ensure that the scanned copies of all the necessary documents have been attached with bid at the appropriate location.
7. The bidders should keep checking the website for any addenda/corrigenda to the notice/bidding documents till the date of on-line submission of bids, and bidders should incorporate the same in their bid documents.

8. The bids will be opened online as per time schedule mentioned in the detailed tender notice in the presence of bidders who wish to attend on the scheduled date and time in the office as mentioned in the detailed tender notice. If the office happens to be closed on the date of opening of bids as specified, the bids will be opened on the next working day at the same time and venue.

9. Bid documents consisting of qualification information and eligibility criterion for bidders, plans specifications, drawings, the schedule of quantities of the various classes of work to be done and the set of terms and conditions of contract to be complied with by the contractors can be seen on website www.mahatenders.gov.in and scanned copies of the required documents and information as per section 2 (Formats and annexure) should be attached in the Technical Bid as prescribed in SBD.

10. Uploaded documents of valid successful bidders will be verified with the original before Signing the agreement. The valid successful bidder has to provide the original to the Concerned authority on receipt of such letter, which will be sent through registered Post / email / Hand delivery.

11. Bids once submitted cannot be withdrawn after the proposal due date and time.

12. Conditional bids and the bids not meeting the qualification criteria on the date of receipt of bids shall be summarily rejected.

13. The pre-bid meeting (if applicable) will be held as specified in the detailed tender notice to clarify the issues and to answer on any matter that may be raised at that stage as stated in Clause 9.2 of the “instructions to Bidders” bidding document.

14. Prospective bidders requiring any clarification of the bidding documents may notify the Employer by uploading queries on E Tendering Portal of MIDC before the date and time as specified in the Tender Schedule. The Employer will respond to these queries clarifications on the date mentioned in the detailed tender Notice.

SECTION 1 – INSTRUCTIONS TO BIDDERS (ITB)

Table of Clauses

A. General	16	Alternative Proposals by Bidders
1 Scope of Bid	17	Format and Signing of Bid
2 Sources of Funds	D. Submission of Bids	
3 Eligible Bidders	18	Deadline for Submission of Bids
4 Qualification of the Bidder	E. Bid Opening and Evaluation	
5 One Bid per Bidder	19	Bid Opening
6 Site Visit	20	Process to be Confidential
B. Bidding Documents	21	Clarification of Financial Bids
7 Content of Bidding Documents	22	Examination of Bids and Determination of Responsiveness
8 Clarification of Bidding Documents	23	Evaluation and Comparison of Financial Bids
9 Amendment of Bidding Documents	F. Award of Contract	
C. Preparation of Bids	24	Award Criteria
10 Language of Bid	25	Employer’s Right to Accept any Bid and to Reject any or all Bids
11 Documents Comprising the Bid	26	Notification of Award and Signing of Agreement
12 Bid Prices	27	Performance Security
13 Currencies of Bid and Payment	28	Advance Payment and Security
14 Bid Validity	29	Dispute Review Expert
15 Bid Security	30	Corrupt or Fraudulent Practices

A. GENERAL

1.0 Scope of Bid

1.1 The Employer (named in Appendix to ITB) invites bids for the constructions of works (as defined in these documents and referred to as “the works”) detailed in the table given in the Invitation For Bids (IFB)

1.2 The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.

1.3 Throughout these bidding documents, the terms ‘bid’ and ‘tender’ and their derivatives (bidder/tenderer, bid/tender, bidding/tendering etc.) are synonymous.

2.0 Sources of Funds

2.1 The expenditure on this project will be met from the budget of MIDC

3.0 Eligible Bidders

3.1 This invitation for Bids is open to all bidders.

3.2 All bidders shall provide in Section 2, Forms of Bid and Qualification Information, a statement that the Bidder is neither associated, nor has been associated, directly or indirectly, with the Consultant or any other entity that has prepared the design, specification, and other documents for the Project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation of supervision of the works, and any of its affiliates, shall not be eligible to bid.

4.0 Qualification of the Bidder

4.1 All bidders shall provide in Section 2, Forms of Bid and Qualification Information,

4.2 All bidders shall include the following information and documents with their bids in Section 2.

1) Scanned from original copy of valid Registration Certificate in appropriate class issued by PWD (GoM)/ CIDCO/Railways/ MJP/ MES/ CPWD. OR Registration copy if Registered with company of Registrars or appropriate authority in case if unregistered contractors;

2) Copies of original documents defining the constitution or legal status, place of registration under partnership or companies Act and principal place of business, written power of attorney of the signatory of the Bid to commit the Bidder (only for unregistered contractor);

3) Experience certificates of similar nature of work as per eligibility criteria.(As per form G)

4) Financial statement as per form-F for bid capacity duly signed by contractor and certified by Chartered Accountant.

5) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor’s reports for the past five years (only for unregistered contractor);

6) Evidence of access to line(s) of credit and availability of other financial resources facilities (25% of contract value) certified by the Bankers.

7) Undertaking that the bidder will be able to invest minimum cash up to 25% of contract value of work during execution of work;

8) Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned and disputed amount if any;

- 9) Certificate from PWD authority regarding fitness and location of Asphalt plant. If the asphalt plant is not within 50 kms. from site of work, the tenderer will have to pay the deposit for asphalt plant online. The document of ownership or rent agreement of plant shall be enclosed as specified and undertaking for shifting of asphalt plant within 50 km before one month of start of asphalt work.. (If Asphalt condition applicable);
- 10) GSTIN Registration Certificate;
- 11) Copy of PAN card. (In case of Joint Venture PAN Card of the Lead Partner);
- 12) If tenderer desires to form JV, the notarized MOU of JV shall be uploaded as per format enclosed (JV is allowed for works costing more than Rs.100 Cr);
- 13) Scan copy of professional tax registration certificate in form PTR & PTE;
- 14) Affidavit on stamp paper of Rs.500/- duly notarized from bidder and in case of Joint Venture from all Joint Venture partners including lead partner, regarding non-blacklisting and action under Indian Penal Code for false/fraudulent documents as per format specified in section 2
- 15) The copy of valid electrical license issued by PWD GoM (applicable for electrical and mechanical works).
- 16) PQ A Total monetary value of construction work performed for each of the last five years as specified in section 2;
- 17) PQ B Existing commitments & on-going works as specified in section 2;
- 18) PQ C Works for which bids already submitted as specified in section 2;
- 19) PQ D Availability of key items of contractor's equipment essential for carrying out the works as specified in section 2;
- 20) PQ E Qualifications and experience of key personnel required for administration & execution of contract as specified in section 2;
- 21) PQ H Proposed Sub-contracts & firm involved as specified in section 2 (if the contractors desires to do so), in which proposals for subcontracting components of the Works amounting to more than 10 percent of the Bid Price (for each, the qualifications and experience of the identified sub contractor in the relevant field should be annexed).

4.3 Deleted

4.4(A) To qualify for award of the contract, each bidder in its name should have in the last five years as referred to in Appendix

(a) Annual turnover: - The maximum of the turn over of last 5 financial years shall not be less than 75% of Annual Cost of the work:

(Annual cost of Work = Estimated Cost of work/ Time limit in years.)

(b) Satisfactorily completed as a prime contractor (or as a nominated subcontractor, where the subcontract involved execution of "all main items of work described in the bid document, provided further that all other qualification criteria are satisfied)

For the private works experience

The experience of Private Works shall be considered only subject to following-

1. Only 50% amount or magnitude of the work completion certificate issued by Private entity shall be considered as work done

amount or magnitude and this amount or magnitude so arrived shall be considered for deciding eligibility as mentioned in document.

2. The tenderer shall submit.

a) copy of work order or registered agreement for the work completed along with the certificate of the Employer.

b) Certificate from Architect & Chartered Accountant (C.A.) confirming the amount of the work executed is included in the Annual account of tenderer.

Note: The updation of the value of completed work should be done at 10% per annum (compounded) by multiplying the values with applicable factor i.e. 1.1, 1.21 or 1.331 as the case may be.

(c) Executed in anyone year, the minimum quantities of the following items of work as indicated in Appendix to ITB.

Each bidder should further demonstrate:

4.4 (B) Availability (either owned or leased/hired) of the following key and critical equipment for this work:

(a) Based on the studies, carried out by the Engineer the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule are shown in the Annexure-I.

The bidders should, however, undertake their own studies and furnish with their bid.

(b) Availability for this work of personnel with adequate experience as required; as per Annexure-II.

(c) Liquid assets and/or availability of credit facilities of not less than amount indicated in Appendix (Credit lines / letter of credit / certificates from Banks for meeting the funds requirement etc. - usually the equivalent of the estimated cash flow for 3 months in peak construction period.)

To qualify for contracts made up of this and other contracts for which bids are invited in the IFB, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

4.5 Sub-contractors' experience and resources shall not 'be taken into account in determining the bidder's compliance with the qualifying criteria except to the extent stated in 4.4 (A) above.

4.6 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:

Assessed Available Bid capacity = (A*N*2 - B)

Where,

A = Maximum value of civil/electrical/mechanical engineering works executed in anyone year during the last five years (updated to the price level of the year indicated in Appendix) taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the works for which bids are invited.

B = Value (updated to the price level of the year indicated in Appendix) of existing commitments and on-going works to be completed during the next Years (period of completion of the Works for which bids are invited)

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion

remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.

4.7 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or
- Participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

5.0 One Bid per Bidder

5.1 Each bidder shall submit only one bid for one work. A bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the bids with the Bidder's participation to be disqualified.

6.0 Cost of Bidding

6.1. The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

7.0 Site Visit

7.1. The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

8.0 After acceptance of tender, if bidder refuses to execution of work.

If a request is submitted by contractors for not opening his offer though he has already submitted the bid, then such request shall be ignored and if contractor is qualified his offer shall be opened and processed as per rules. After acceptance of such tender, if the contractor refuses to execute the work or shows inability to execute the work, the EMD of the contractor shall be forfeited and the contractor shall be banned for participation in tenders for a period of one year in MIDC. The Chief Engineer of the Zone is authorized to take decision on this issue.

B. BIDDING DOCUMENTS

8. Content of Bidding Documents

8.1 The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10.

Section	Particulars	Volume No.
	Invitation for Bids	
1	Instruction to Bidders	I
2	Qualification information and other forms	
3	Conditions of Contract	
4	Contract Data	
5	Technical Specification	II
6	Form of Bid	
7	Bill of Quantities	III
8	Securities and other forms	
9	Drawings	IV
10	Documents to be furnished by bidder	V
11	Additional Clauses &General conditions	VI

8.2 One copy of each of the volumes I, II, III IV, V and VI WILL BE UPLOADED ON MIDC WEBSITE Documents to be furnished by the bidder in compliance to section 2 will be prepared by him and furnished as Volume-V in two parts (refer clause 12).

8.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities, forms, Annexures and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 26 hereof, bids which are not substantially responsive to the requirements of the Bid Documents shall be rejected.

9.0 Clarification of Bidding Documents

9.1 Prospective bidders requiring any clarification of the bidding documents may notify the Employer by uploading queries on E Tendering Portal of MIDC before the date and time as specified in the detailed tender notice. The Employer will respond to these queries clarifications

on the date mentioned in the detailed tender Notice. The reply and clarifications of the Employer's response will be uploaded in reply to queries and MIDC's clarification of concern tender on e-tendering portal and viewable to all tenderer, including a description of the enquiry but without identifying its source.

9.2 Pre-bid meeting (For works costing more than 20 Cr and specialised works)

9.2.1 The bidder or his official representative is invited to attend a pre-bid meeting which will take place at the address, venue, time and date as indicated in NIT.

9.2.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.3 The bidder is requested to submit any questions in writing by fax or by e-mail to reach the Employer well before the date & time of the pre-bid meeting.

9.2.4 Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted by uploading on e-tender portal without delay for information to all intended bidder. Any modifications of the bidding documents listed in sub clause 8.1 which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to clause 10 and not through the minutes of the pre-bid meeting.

9.2.5 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.

10.2 Any uploaded addendum shall be part of the bidding documents.

10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at his discretion, extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2.

C. PREPARATION OF BIDS

11. Language of the Bid

11.1 All documents relating to the bid shall be in the English language.

Bidder must pay online:

- a. Bid security(E.M.D).
- b. Cost of Blank tender form
- c. Application support amount
- d. Certificate from PWD authority regarding fitness and location of Asphalt plant. If the asphalt plant is not within 50 Kms. from site of work, the tenderer will have to pay the deposit online.

12. Documents Comprising the Bid

12.1 The bid to be submitted by the bidder online as Volume V of the bid document (refer Clause 8.1) shall be in two separate Envelope 1; Envelope no. 1 shall be named "Technical Bid" and shall comprise

- 1) Scanned from original copy of valid Registration Certificate in appropriate class issued by PWD (GoM)/ CIDCO/Railways/ MJP/ MES/ CPWD. OR Registration copy if Registered with company of Registrars or appropriate authority in case if unregistered contractors;
- 2) Copies of original documents defining the constitution or legal status, place of registration under partnership or companies Act and principal place of business, written power of attorney of the signatory of the Bid to commit the Bidder (only for unregistered contractor);
- 3) Experience certificates of similar nature of work as per eligibility criteria.(As per form G)
- 4) Financial statement as per form-F for bid capacity duly signed by contractor and certified by Chartered Accountant.
- 5) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years (only for unregistered contractor);
- 6) Evidence of access to line(s) of credit and availability of other financial resources facilities (25% of contract value) certified by the Bankers.
- 7) Undertaking that the bidder will be able to invest minimum cash up to 25% of contract value of work during execution of work;
- 8) Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned and disputed amount if any;
- 9) Certificate from PWD authority regarding fitness and location of Asphalt plant. If the asphalt plant is not within 50 kms. from site of work, the tenderer will have to pay the deposit for asphalt plant online. The document of ownership or rent agreement of plant shall be enclosed as specified and undertaking for shifting of asphalt plant within 50 km before one month of start of asphalt work.. (If Asphalt condition applicable);
- 10) GSTIN Registration Certificate;
- 11) Copy of PAN card. (In case of Joint Venture PAN Card of the Lead Partner);
- 12) If tenderer desires to form JV, the notarized MOU of JV shall be uploaded as per format enclosed (JV is allowed for works costing more than Rs.100 Cr);
- 13) Scan copy of professional tax registration certificate in form PTR & PTE;
- 14) Affidavit on stamp paper of Rs.500/- duly notarized from bidder and in case of Joint Venture from all Joint Venture partners including lead partner, regarding non-blacklisting and action under Indian Penal Code for false/fraudulent documents as per format specified in section 2
- 15) The copy of valid electrical license issued by PWD GoM (applicable for electrical and mechanical works).
- 16) PQ A Total monetary value of construction work performed for each of the last five years as specified in section 2;
- 17) PQ B Existing commitments & on-going works as specified in section 2;
- 18) PQ C Works for which bids already submitted as specified in section 2;
- 19) PQ D Availability of key items of contractor's equipment essential for carrying out the works as specified in section 2;
- 20) PQ E Qualifications and experience of key personnel required for administration & execution of contract as specified in section 2;
- 21) PQ H Proposed Sub-contracts & firm involved as specified in section 2 (if the contractors desires to do so), in which proposals for

subcontracting components of the Works amounting to more than 10 percent of the Bid Price (for each, the qualifications and experience of the identified sub contractor in the relevant field should be annexed).

Envelope no. 2 shall comprise

- (i) Form of Bid a specified in Section 6.
- (ii) Priced Bill of Quantities for items specified in Section 7.

12.2 Following documents, which are not submitted with the bid, will be deemed to be part of the bid.

Section	Particulars	Volume No.
	Invitation for Bids (IFB)	
1	Instruction to Bidders	Volume I
2	Conditions of Contract	
3	Contract Data	
4	Specifications(Item wise specification attached separately at the end)	Volume II
5	Drawings	Volume IV
6	Additional clauses and General	Volume VI

13. Bid Prices.

13.1 The contract shall be for the whole works as described in Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.

13.2 Deleted

13.3 All cess,duties,royalty and other levies excuding GST payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder.

13.4 The rates and prices quoted by the bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of Clause 47 of the Conditions of Contract.

14.0 Currencies of Bid and Payment

14.1 The unit rates and the Prices shall be quoted by the bidder entirely in Indian Rupees. All payment shall be made in Indian Rupees.

15.0 Bid Validity

15.1 Bids shall remain valid for a period not less than 120 days after the deadline date for bid submission specified in Clause 20. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to Clause 12.1 (v) and the Form of Bid submitted by the bidder, the latter shall be deemed to stand corrected in accordance with the former and the bidder has to provide for any additional security that is required.

15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid except as provided in 15.3 hereinafter, but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 16 in all respects.

16.0 Bid Security:- Bid Security (E.M.D) Shall be accepted in online payment only for works costing up to Rs. 25 Cr. And for works costing more than Rs 25 Cr. the bid security will be accepted in the form of on line payment/DD/B.G.

16.1 The Bidder shall furnish, as part of his Bid, a Bid security in the amount as shown in column 4 of the table of IFB for this particular work. This bid security shall be in favour of Employer as named in Appendix and may be in one of the following forms :

- a) Demand Draft from any Nationalised or Bank approved by Government of Maharashtra.
- b) Bank Guarantee from any Nationalised or Bank approved by Government of Maharashtra, in the format given in Volume III.

Note:- If EMD is paid in the form of DD/BG Scanned copy of same shall be attach in appropriate place in the system. & original copy shall be submitted in the office of opening authority at the time of opening 1st envelope otherwise, 2nd envelope of the Bidder shall not be opened.

16.2 Bank guarantees (and other instruments having fixed validity) issued as surety for the bid shall be valid for 45 days beyond the validity of the bid.

16.3 Any bid not accompanied by an acceptable Bid Security and not secured as indicated in Sub-Clauses 16.1 and 16.2 above shall be rejected by the Employer as non-responsive.

16.4 The Bid Security of bidders other than successful bidder (L1) are returned within 28 days after opening of financial bid.

16.5 The Bid security of the successful bidder will be discharged when the bidder has signed the agreement & furnished the required Performance Security.

16.6 The Bid Security may be forfeited

- (a) if the Bidder withdraws the Bid after Bid opening during the period of Bid validity;
- (b) in the case of a successful Bidder, if the Bidder fails within the specified time limit to

- (i) sign the Agreement; or
- (ii) Furnish the required Performance Security & additional performance security

17.0 Alternative Proposals by Bidders

17.1 Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the conditions of contract (including mobilisation advance or time for completion), basic technical design as indicated in the drawing and specifications. Conditional offer or alternative offers will not be considered further in the process of tender evaluation.

18.0 Format and Signing of Bid

18.1 The Bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

D. SUBMISSION OF BIDS

19.0 Deleted

20.0 Deadline for Submission of the Bids

20.1. The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21.0 Deleted

22.0 Deleted

E. Bid Opening and Evaluation

23.0 Bid opening

23.1 the employer will open all the bids received in the presence of the bidders or their representatives who choose to attend at time, date and the place specified in appendix in the manner specified in clause 20 and 23.3. in the event of the specified date of bid opening being declared a holiday for the employer, the bids will be opened at the appointed time and location on the next working day.

23.3 the envelope containing "technical bid" shall be opened. the amount, form and validity of the bid security furnished with each bid will be announced. if the bid security furnished does not confirm to the amount and validity period as specified in the invitation for bid (ref. column 4 and paragraph 3), and has not been furnished in the form specified in clause 16, the remaining technical bid and the sealed financial bid will be returned to the bidder.

23.4 (i) subject to confirmation of the bid security by the issuing bank, the bids accompanied with valid bid security will be taken up for evaluation with respect to the qualification information and other information furnished in part i of the bid pursuant to clause 12.1.
(ii) after receipt of confirmation of the bid security, the bidder will be asked in writing (usually within 72 hours of opening of the technical bid) to clarify his technical bid, if necessary.
(iii) the bidders will respond in not more than 72 hours of issue of the clarification letter and decision of the opening authority will be final and binding on the bidders.

23.5 At the time of opening of "financial bid", the names of the bidders were found responsive in accordance with clause 23.4 will be announced. the bids of only these bidders will be opened. the responsive bidders' names, the bid prices, the total amount of each bid and such other details as the employer may consider appropriate, will be announced by the employer at the opening.

24.0 Process to be Confidential

24.1 information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced. any effort by a bidder to influence the employer's processing of bids or award decisions may result in the rejection of his bid.

25.0 Clarification of Financial Bids

25.1 To assist in the examination, evaluation, and comparison of bids, the employer may, at his discretion, ask any bidder for clarification of his bid, including breakdowns of unit rates. the request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the bid shall be sought, offered, or permitted.

25.2 Subject to sub-clause 25.1, no bidder shall contact the employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. if the bidder wishes to bring additional information to the notice of the employer, it should do so in writing.

25.3 Any effort by the bidder to influence the employer in the employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the bidders' bid.

26.0 Examination of Bids and Determination of responsiveness

26.1 During the detailed evaluation of "technical bids", the employer will determine whether each bid (a) meets the eligibility criteria defined in clause 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities and; (d) is substantially responsive to the requirements of the bidding documents. during the detailed evaluation of the "financial bid", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications, and drawings.

26.2 A substantially responsive "financial bid" is one which conforms to all the terms, conditions, and specifications of the bidding

documents, without material deviation or reservation. a material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the works; (b) which limits in any substantial way, inconsistent with the bidding documents, the employer's rights 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.

26.3 if a "financial bid" is not substantially responsive, it will be rejected by the employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

27.0 Deleted

28.0 Deleted

29.0 Evaluation and Comparison of Financial Bids

29.1 The employer will evaluate and compare only the bids determined to be substantially responsive in accordance with sub-clause 26.2.

29.3 The employer reserves the right to accept or reject any variation or deviation. variations and deviations and other factors, which are in excess of the requirements of the bidding documents or otherwise result in unsolicited benefits for the employer shall not be taken into account in bid evaluation.

29.4 The estimated effect of the price adjustment conditions under clause 47 of the conditions of contract, during the period of implementation of the contract, will not be taken into account in bid evaluation.

29.5 If the bid of the successful bidder is seriously unbalanced in relation to the engineer's estimate of the cost of work to be performed under the contract, the employer may require the bidder to produce detailed price analyses for any or all items of the bill of quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. after evaluation of the price analyses, the employer may require that the amount of the performance security set forth in clause 34 be increased at the expense of the successful bidder to a level sufficient to protect the employer against financial loss in the event of default of the successful bidder under the contract.

29.6 A bid which contains several items in the bill of quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

30.0 Deleted

F. Award of contract

31.0 Award criteria

31.1 subject to clause 32, the employer will award the contract to the bidder whose bid has been determined
(i) to be substantially responsive to the bidding documents and who has offered the lowest evaluated bid price; and
(ii) to be within the available bid capacity adjusted to account for his bid price which is evaluated the lowest in any of the tenders opened earlier than the one under consideration.

32.0 employer's right to accept any bid and to reject any or all bids

32.1 not with standing clause 31, the employer reserves the right to accept or reject any bid, and to cancel the bidding process and reject all bids, at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the employer's action.

33.0 notification of award and signing of agreement

33.1 The bidder whose bid has been accepted will be notified of the award by the employer prior to expiration of the bid validity period by facsimile and email confirmed by registered letter. This letter (hereinafter and in the conditions of contract called the "letter of acceptance") will state the sum that the employer will pay the contractor in consideration of the execution, completion, and maintenance of the works by the contractor as prescribed by the contract (hereinafter and in the contract called the "contract price").

33.2 The notification of award will constitute the formation of the contract, subject only to the furnishing of a performance security (security deposit) in accordance with the provisions of clause 34.

33.3 The agreement will incorporate all agreements between the employer and the successful bidder. it will be signed by the employer and sent to the successful bidder, within 30 days following the notification of award along with the letter of acceptance. within 21 days of receipt, the successful bidder will sign the agreement and deliver it to the employer.

33.4 Upon the furnishing by the successful bidder of the performance security, the employer will promptly notify the other bidders that their bids have been unsuccessful.

34.0performance security (security deposit)

34.1 Within 30 days of receipt of the letter of acceptance, the successful bidder shall deliver to the employer a performance security (initial security deposit) in any of the forms given below for an amount equivalent to 2% of the contract price plus additional security for unbalanced bids in accordance with clause 29.5 of ITB and clause 52 of conditions of contract:

- a bank guarantee in the form given in section 8; or
- demand draft as indicated in appendix to ITB.

34.2 If the performance security is provided by the successful bidder in the form of a bank guarantee, it shall be issued either
(a) at the bidder's option, by a nationalized or banks approved by govt. of Maharashtra.

34.3 failure of the successful bidder to comply with the requirements of sub-clause 34.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the bid security.

35.0 Advance payment and security

35.1 The employer will provide an advance payment on the contract price as stipulated in the conditions of contract, subject to maximum amount, as stated in the contract data.

36.0 Dispute review expert

36.1 The employer proposes that concerned C.E. shall be appointed as dispute review expert under the contract, at a daily fee as indicated in appendix plus reimbursable expenses. if the bidder disagrees with this proposal, the bidder should so state in the bid. if in the letter of acceptance, the employer has not agreed on the appointment of the dispute review expert, the dispute review expert shall be appointed by the CEO MIDC.

36.2 For works costing above Rs.5 crore the procedure for arbitration will be as per G.R. of law & judiciary department issued vide sankirn-2016/c.r. 20/ ka-19 dt. 13/10/2016 regarding “institutional arbitration policy”.

37.0 Corrupt or fraudulent practices

37.1 The employer will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible. either indefinitely or for a stated period of time, to be awarded a contract with MIDC if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution.

37.2 Furthermore, bidders shall be aware of the provision stated in sub-clause 59.2 of the conditions of contract.



MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION
APPENDIX TO ITB

Sr.No.		Clause Reference with respect to Section-I
1.	Name of the Employer CEO.MIDC	[CL.1.1]
2.	Annual Turnover for the last five-Financial years	
	Financial Year	Turnover
1.	2022-2023	15,72,78,653.57
2.	2023-2024	17,34,37,419.35
3.	2024-2025	19,03,89,949.06
4.	2025-2026	20,92,71,596.90
5.	2026-2027	23,01,98,756.59
3.	The annual financial turn over amount is not less than Rs.25,32,18,632.25	[CI 4.4 A(a)]
4.	Value of work is Rs 33,76,24,843.00.	[CI 4.4 A(b)]
5.	Attached separately.	[CI 4.4 A(c)]
6.	Liquid assets and/or availabilty of credit facilities is 25% .	[CI 4.4 B(c)]
7.	Price level of the financial year : 2026-2027	[CI 4.6]
8.	The Pre-Bid meeting will take place at The Office of Superintending Engineer, MIDC, Circle, 2nd Floor, Udyog Bhavan, Amravati.Udyog Bhawan, 4th Floor, Civil Lines, Nagpur-440001. and on 12:00:PM	[CI 9.2.1]
9.	The Financial and technical bid will be opened online at the office of the As per NIT	
10.	Address of the Employer MIDC HQ Office, Udyog Sarathi, Mahakali Caves Road, Andheri (E), Mumbai-93	[CL.4.5(a)]
11.	Identification Bid For :Pusad Indl. Area....Strengthening of existing	[CL.19.2(b)]

	infrastructure in Pusad Growth centre..... Bid Reference No: SAM Do not open before As Per NIT	
12.	The Bank Guarantee/Draft in favour of Executive Engineer ,MIDC Div Amaravati Division payable at Amravati	[CL.34.1]

13.	The name of Dispute Review Expert is Chief Engineer ,MIDC Zone Nagpur	[CL.36.1]	
14.	Escalation factors (for the cost of works executed and financial figure to a common base value for works to be completed)		
	Years Before		Multiply Factor
	One		1.1
	Two		1.21
	Three		1.33
	Four		1.46
	Five		1.61

ANNEXURE-I

Key Plant &Equipment to be deployed on Contract Work
[Reference Cl. 4.4 (B) (a)]

Sl.	Type of Equipment	Maximum age as on tender opening date	Number of machinery required
1	Motor Grader	15	2
2	Dozer	15	2
3	Front end Loader (JCB)	15	1
4	Smooth Wheeled Roller	15	2
5	Vibratory Roller	15	3
6	Hotmixed plant with Electronic Control.	15	1
7	Paver finisher with electronic sensor	15	1
8	Water Tanker	15	2
9	Bitumen Sprayer	15	1
10	Tandem Roller	15	1
11	Concrete Mixer with Integral Weigh Batching facility	15	1
12	Concrete Batching and Mixing Plant	15	1
	Total		16

ANNEXURE-II

List of Key Personnel to be deployed on Contract Work
[Reference Cl. 4.4 (B) (b)]

Sr No	Personnel	Qualification	Number of technical personnel
1	Project Manger	B.E. Civil + 2 Years Exp.	1 No.
2	Site Engineer	D.CE. Civil + 2Years Exp.	2 No.
3	Supervisor	HSC/ITI	2 No.
	Total		5

CLAUSE FOR RECOVERY OF ADDITIONAL PERFORMANCE SECURITY

FOR THE TENDERS RECEIVED BELOW THE ESTIMATED COST AND ADDITIONAL SECURITY DEPOSIT FOR THE QUANTITIES EXCEEDING 125% AND EIRLs

A) Clause for Recovery of additional Performance Security for the tenders received below the estimated cost

1) In case the contractor has quoted the offer for tender below the estimated cost, then the contractor shall have to pay additional Performance Security in the form of DD/BG of the amount as mentioned below:

a) No additional performance security deposit will have to be paid if the tender offer is received up to 1% below the estimated cost, however if the offer quoted is 1.01 to 10% below the estimated cost, then the additional Performance Security amount shall be 1% of the estimated cost.

b) If the offer quoted is more than 10% below up to 15% below the estimated cost, then the additional performance security deposit shall be equal to the amount of percentage more than 10% below + the amount as per (a) above. (For example, if the tender received at 14% below, the additional performance security shall be – up to 10% = 1% + (14%-10%) = 1 + 4 = Total 5% of the estimated cost).

c) If the offer quoted is more than 15% below the estimated cost, then the additional performance security deposit shall be equal to double the amount of percentage more than 15% below + 1% for each percentage beyond 10% up to 15% + the amount as per (a) above. (For example, if tender received at 19% below equal to for first 10% below 1% + (15-10=5) + 2 X (19-15=4)) = 1% + 5% + 8% = 14%).

2) The DD/BG towards additional performance Security shall be drawn in favor of the Executive Engineer concerned. For the amount upto Rs. 50,000/- only the DD shall be accepted & for the amount above Rs.50,000/- DD / BG shall be accepted.

3) It is mandatory to have MICR and IFSC code of the Bank on the DD.

4) The contractor shall submit the original DD/BG towards additional performance security within 8 working days from the date of opening of 2nd envelope. DD/BG towards additional performance security will not be accepted after 8 working days from the date of opening of 2nd envelope in any case.

5) Contractors whose DD/BG towards additional performance security are found false or if he fails to submit the DD/BG within prescribed time limit of 8 working days from the date of opening of 2nd Envelope, then all such contractors shall be banned from submitting the tenders in MIDC for a period of one year & the EMD of such contractors shall be forfeited

6) Further in such cases after forfeiting EMD of the lowest agency (L-1 contractor), the L-2 contractor shall be asked in writing whether he is ready to execute the work at the rates lower than L-1. If the L-2 contractor agrees, then additional performance security deposit shall be obtained from L-2 contractor and his tender with revised offer shall be accepted or recommended for approval.

7) The additional performance security shall be refunded to the contractor within 3 months. from the date of completion of work.

8) The validity of BG of additional performance security is 3 months after intended date of completion of work.

B) Clause for recovery of additional security deposit for the quantities exceeding 125% and extra Item Rate List(EIRL)

It shall also be noted that security deposit for the quantities exceeding 125% of the tendered quantities and/or EIRL, Shall also be deducted at the % to be recovered through bills (i.e. in cash) as mentioned in the tender text.

The security deposit so recovered in above events shall be refunded after satisfactory completion of defect liability period.

Special Condition

1. No claims including loss of opportunity of business, interest on Bank Guarantee, Insurance Charges, will be admissible / entertained for delay or non commencement of work due to delay in Acquisition of Land, Local Agitation, Environment Clearance, Permissions from Govt. Authorities.
2. Contractor will not claim any extra amount, for delay in release of funds, due to non-availability of funds.
3. Contractor will not claim any extra amount, if there is inordinate delay in payment to contractor for the completed works for any reason.
4. Contractor will not claim any extra amount if the work is stopped at any stage, and quantities executed for any or all items are below 75% of tendered quantities.

MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION (A Government of Maharashtra Undertaking)

Clause for use of CBuD app before carrying out any digging activity

- 1) Contractor to do any type of digging only after prior intimation through **Call Before you Dig (CBuD) App** and as per its terms and conditions.
- 2) Contractor to use **CBuD App** before commencing any type of digging anywhere under the scope of this contract.

SECTION 2
QUALIFICATION INFORMATION

The information to be filled in by the bidder in the following pages will be used for purposes of post qualification as provided for in clause 4 of the instructions to bidders. This information will not be incorporated in the contract.

1. For Individual Bidders

1.1 Constitution or legal status of Bidder

(Attach Copy)

Place of registration:-----

Principal place of business:-----

Power of attorney of signatory of bid

(Attach)

1.2 Total value of civil Engineering Construction work performed in the last five years ** (Rs. in Crore) ß

2022-2023-----

2021-2022-----

2020-2021-----

2019-2020 -----

2018-2017-----

ß Attach certificate(s) from Chartered Accountant.

** Immediately preceding the financial year in which bid are received.

PQ FORM A

1.3.1 Work performed as prime contractor, work performed in the past as a nominated sub-contractor will also be considered provided the Sub-contract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied (in the same name) on works of a similar nature over the last five years **

Project Name	Name of the Employer *	Description of work	Contract No.	Value of Contract (Rs. Crore)	Date of Issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay & work completed

* Attach certificate(s) from the officer not below the rank of Executive Engineer.

** Immediately preceding the financial year in which bid are received.

Signature of Contractor
(With Seal)

PQ FORM B

1.4 Information on Bid capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

(A)Existing commitments and on-going works:

Description of work	place & State	Contract No.	Name & Address of employer	Value of Contract (Rs. Cr.)	stipulated period of completion	Value of works* remaining to be completed (Rs. Cr.)	Anticipated date of completion
1	2	3	4	5	6	7	8

* Attach certificate(s) from the officer not below the rank of Executive Engineer.
@ The item of works for which data is requested should tally with that specified in ITB clause 4.4A(C).

Signature of Contractor
(With Seal)

PQ FORM C

(B) Works for which bids already submitted:

Description of works	Place & State	Name & Address of Employer	Estimated value of works (Rs Cr)	Stipulated period of completion	Date when decision is expected	Remarks, if any
1	2	3	4	5	6	7

Signature of Contractor
(With Seal)

PQ FORM D

1.5. Availability of key items of Contractor's Equipment essential for carrying out the Works [Ref. Clause 4.4(B)(a)]. The Bidder should list all the information requested below. Refer also to Sub Clause 4.2 (19) of the Instructions to Bidders.

Item of Equipment	Requirement		Availability proposals			Remarks (from whom to be purchased)
	No.	Capacity	Owned /Leased /hired to be procured	Nos./Capacity	Age and Condition	

Signature of Contractor
(With seal)

Note: 1) In case of hired plant and machinery, notarised agreement shall be furnished along with documents of ownership in the name of person from whom machinery is hired.
2) In case, if the contractor do not possess - Hot mix asphalt plant with in 50 Km radius from site of work, then an undertaking on stamp paper of Rs.500 duly notarized shall be submitted by the contractor along with PQ form in envelope No. 1 for assurance towards erection of hot mix asphalt plant within 50 Km from the site of work not later than one month from the date of work order, and separate amount of Rs.5,00,000/- as guarantee shall be submitted along with PQ form in envelope No.1. Once the contractor erects the hot mix plant, within 50 Km radius from site of work, the amount of Rs.5.00 lakh will be refunded.

PQ FORM E

1.6. Qualifications and experience of key personnel required for administration and execution of the Contract [Ref. Clause 4.4(B)(b)]. Attach

PQ FORM E

1.6. Qualifications and experience of key personnel required for administration and execution of the Contract [Ref. Clause 4.4(B)(b)]. Attach biographical data. Refer also to Sub Clause 4.2 of the Contract [Ref. Clause 4.4(B)(b)]. Attach biographical data. Refer also to Sub Clause 4.2 (20) of instructions to Bidders and Sub Clause 9.1 of the Conditions of Contract.

Position	Name	Qualification	Year of Experience (General)	Years of experience in the proposed position
----------	------	---------------	------------------------------	--

Signature of Contractor
(with seal)

FORM - F
FINANCIAL STATEMENT

1.

Name of Applicant (in case of joint ventures / consortium, the names of the constituent firms).
- 2

Turnover in terms of value of works executed during each year (as reflected in the Profit & Loss Account)

Year

- | | | | |
|----------|--|-----------|-----------|
| 2 | Turnover in terms of value of works executed during each year (as reflected in the Profit & Loss Account) | Ye | ar |
| 3 | Approximate value of works in hand | | |
| 4 | Bid Capacity i.e. $(A \times N \times 2) - B$ Where | | |
| A= | Maximum of the updated values of works executed in one of the preceding 5 years. The updation of the value of work should be done at 10% per annum (compounded) by multiplying the values with applicable factor i.e. 1.1, 1.21, 1.331, 1.46 or 1.61 as the case may be. | | |
| B= | Value of existing commitment of works (on-going or to be completed in the period stipulated for completion of the work in the present tender). | | |
| N= | Number of years prescribed for completion of the project for this work. | | |

Certified that the information given is based on the facts and figures recorded in this office through various documents and is true to the best of my knowledge and belief.

Signature of the Chartered Accountant Signature of Contractor
(With seal)

Note: It shall be noted that, if the information given above is found to be misleading or false, the action will be initiated to intimate the name of the CA to the Institute of Chartered Accounts of India, for appropriate punitive action.

FORM -G
CERTIFICATE FROM CONCERNED AUTHORITY IN RESPECT OF WORKS COMPLETED DURING
LAST FIVE FINACIAL YEARS
(In support of works mentioned in Form B & C)

1	Name of Contractor	
2	Name of work	
3	Estimated Cost put to tender	
4	Tendered Cost	
5	Major quantities / disciplines of the work executed by the tenderer	
6	Period stipulated in tender for completion of work	
7	Date of Work Order	
8	Stipulated Date of start of work	
9	Stipulated Date of completion	
10	Actual Date of Completion	
11	If time over-run, the reasons for the same	
12	Remarks	

11	If time over-run, the reasons for the same	
12	Final cost of work completed	
13a	Has the tenderer started the work promptly after issue of work order	
b	Has the tenderer maintained progress of work as per agreement?	
c	Quality of work	Excellent / Good / Satisfactory
d	Compensation / Penalty levied if any with reasons	
14	Any other fact about the overall performance of the contractor, the authority may like to mention.	

Certified that the information given is based on the facts and figures recorded in this office through various documents and is true to the best of my knowledge and belief.

Signature of Officer issuing the certificate

(Not below the rank of EE)

Outward No. of Issuing Authority_____

Date: _____

(**NOTE**- The format of certificate is indicative. However the certificate shall contain above information duly certified by the issuing officer shall not be below the rank of Executive Engineer.)

FORM -H

1.7. Proposed sub-contracts and firms involved. [Refer **ITB** Clause 4.2 (21)]

Portion or Sub-estimate of the works.	Value of Sub-contract.	Sub-contractor (Name & Address)	Experience in similar work.
---------------------------------------	------------------------	---------------------------------	-----------------------------

1.8. Financial reports for the last five years: balance sheets, profit and loss statements, auditors' reports (in case of companies/ corporation) etc. List them below and attach copies.

1.9 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit. Etc List them below and attach copies of support documents.

1.10 Deleted

1.11 Information on litigation history in which the Bidder is involved. Other Party (ies) Employer Cause of Dispute Amount involved Remarks showing Present Status

1.12 Statement of compliance under the requirements of Sub Clause 3.2 of the instructions to Bidders. (Name of Consultant engaged for project preparation is.....

1.13 Deleted

1.14 Deleted

1.15 Quality Assurance Programme

2.0 Deleted

SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT FACILITIES

BANK CERTIFICATE (Letter of Credit)

(Issued by any Nationalised or Bank approved by Govt. of Maharashtra)

This is to certify that M/s. _____ is a reputed company with a good financial standing. If the contract for the work

"_____
_____ "is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs _____ to meet their working capital requirements for executing the above contract during the contract period.

(Signature)

Name of Bank

Senior Bank Manager

Address of the Bank

Telephone No.

Fax No.

Email ID

Note: The Bidders are requested to upload the Bank Certificate containing above details in 1st envelope, failing which the 2nd envelope will not be opened.

Affidavit for Non- Blacklisting and action under Indian Penal Code for false/fraudulent documents

(Affidavit to be uploaded by tenderer in envelope No. 1 and in case of JV, by lead partner & all Joint Ventures partners on Rs.500/- stamp paper duly notarized.)

Name of work----- I _____ age _____ address _____ (Authorized signatory to sign the contract), hereby submit, vide this affidavit in truth, that I am the owner of the contracting firm _____/ authorized signatory and I am submitting the documents in envelope No. 1 for the purpose of scrutiny of the contract. I hereby agree to the conditions mentioned below:-

1. Certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s-----PAN No.have did not abandon any work nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
3. The undersigned hereby authorize (s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation .
4. I, the undersigned declare that as on date neither our company is black listed/banned nor any action of deregistration has been taken against our company by any Government / Semi-Government / Public Sector Undertaking / Urban Local body/ Municipal Corporation etc.
5. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department, Project implementing agency within time frame as specified in this document.
6. I am liable for action under Indian Penal Code for submission of any false / fraudulent paper / information submitted in envelope no.1.
7. I am liable for action under Indian Penal Code if during contract period and defect liability period, any false information, false bill of purchases supporting proof of purchase, proof of testing submitted by my staff, subletting company or by myself, I will be liable for action under Indian Penal Code.
8. I am liable for action under Indian Penal Code if any papers are found false / fraudulent during contract period and even after the completion of contract (finalization of final bill).

(Signed by an Authorized Officer of the Firm)

Title of Officer -----

Name of Firm -----

DATE:

Footnote Note:

- 1) Non performance, as decided by the Employer, shall include all contracts where
 - (i) Nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract; and
 - (ii) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where the Employers decision was overruled by the dispute resolution mechanism. Non performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the bidder have been exhausted.
- 2) The above requirement is also applicable to the contracts executed by the bidder as JV member.
- 3) Please note the contractor & in case of Joint Venture lead partner as well as all Joint Venture partners shall sign the Affidavit individually and upload the same in envelope no.1, failing which their tender will not be opened & summarily rejected.

UNDERTAKING OF MINIMUM CASH INVESTMENT

I, the undersigned do hereby undertake that our firm M/s -----
-- would invest a minimum cash up to 25% of the work during implementation of the Contract.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

DECLARATION FOR NON-EMPLOYEMENT OF EX-MIDC EMPLOYEE

I/We hereby declare that in the formation of our Company, either by way of partnership or consultant, no MIDC ex-employee has been on the enrolment of the Company.

It is further to certify that the ex-employee of the MIDC, who has joined the Company, has completed 2 years from his date of resignation from MIDC or from the date of retirement from MIDC.

Date :

Place :
Contractor

Signature of

**CERTIFICATE FROM CONTRACTOR REGARDING STUDY OF
WORK SITE**

I/We hereby certify that the rates have been quoted by me/us after:

- a) I/We have fully acquainted myself/ ourselves with site conditions &
- b) I/We have fully read, understood & accepted all terms, conditions, specifications & requirements mentioned in these tender documents.

Stamped & dated

Signature of the

Contractor

SECTION 3

CONDITIONS OF CONTRACT

A. General	B. Time Control	E. Finishing the Contract
1 Definitions	27 Programme	55 Completion
2 Interpretation	28 Extension of the Intended Completion Date	56 Taking Over
3 Language and Law	30 Delays Ordered by the Engineer	57 Final Account
4 Engineer's Decision	31 Management Meetings	58 Operating and Maintenance Manuals
5 Delegation	C. Quality Control	59 Termination
6 Communications	33 Identifying Defects	60 Payment upon Termination
7 Sub-contracting	34 Tests	61 Property
8 Other Contractors	35 Correction of Defects	62 Release from Performance
9 Personnel	36 Defects	F. Special Conditions of Contract
10 Employer's & Contractor's risk	D. Cost Control	
11 Employer's Risks	37 Bill of Quantities	
12 Contractor's Risks	38 Changes in Quantities	
13 Insurance	39 Variations	
14 Site Investigation Reports	40 Payments for Variations	
15 Queries about the Contract Data	41 Cash Flow forecasts	
16 Contractor to Construct the Works	42 Payment Certificates	
17 The works to be completed by the Intended Completion Date	43 Payments	
18 Approval by the Engineer	44 Compensation Events	
19 Safety	45 Tax	
20 Discoveries	46 Currencies	
21 Possession of the Site	47 Price Adjustment	
22 Access to the Site	48 Retention	
23 Instructions	49 Liquidated Damages	
24 Disputes	50 Bonus	
25 Procedure for Disputes	51 Advance Payment	
26 Replacement of Dispute Review Expert	52 Securities	
	53 Deleted	
	54 Cost of Repairs	

A . GENERAL

1.0 Definitions

1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

The Adjudicator (synonymous with Institutional Arbitration Policy) is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in Clauses 24 and 25. The name of the Adjudicator is defined in the Contract Data.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

Compensation Events are those defined in Clause 44 hereunder.

The Completion Date is the date of completion of the Works as certified by the Engineer in accordance with Sub Clause 55.1.

The Contract is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

The Contract Data defines the documents and other information which comprise the Contract.

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

The Contractor's Bid is the completed Bidding document submitted by the Contractor to the Employer and includes Technical and Financial bids.

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

Days are calendar days; months are calendar months.

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

The Defects Liability Period is the period named in the Contract Data and calculated from the Completion Date.

The Employer is the party who will employ the Contractor to carry out the, Works.

The Engineer is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, awarding extensions of time, and valuing the Compensation Events.

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

The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.

The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time.

Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

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

The Site is the area defined as such in the Contract Data.

Site Investigation Reports are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.

The Start Date is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.

A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract which includes work on the Site.

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

A Variation is an instruction given by the Engineer, which varies the Works.

The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.

2.0 Interpretation

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around.

Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about the Conditions of Contract.

2.3. The documents forming the Contract shall be interpreted in the following order of priority:

- (1) Agreement
- (2) Reply To Queries & MIDC clarifications, Minutes of the pre bid meeting
- (3) Letter of Acceptance, notice to proceed with the works

- (4) Contractor's Bid
- (5) Contract Data
- (6) Conditions of Contract including Special Conditions of Contract
- (7) Specifications
- (8) Drawings
- (9) Bill of quantities
- (10) any other document listed in the Contract Data as forming part of the Contract.

3.0 Language and Law

3.1 The language of the Contract and the law governing the Contract are stated in the Contract Data.

4.0 Engineer's Decisions

4.1 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5.0 Delegation

5.1 The Engineer may delegate any of his duties and responsibilities to other people including PMC appointed by MIDC except to the Adjudicator after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6.0 Communication

6.1 Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

7.0 Sub-contracting

7.1 The Contractor may sub-contract any portion of work, upto a limit specified in Contract Data, with the approval of the Engineer but may not assign the Contract without the approval of the Employer in writing. Sub-contracting does not alter the Contractor's obligations.

8.0 Other Contractors

The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of other Contractors. The Contractor shall as referred to in the Contract Data, also provide facilities and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

9.0 Personnel

9.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

9.2 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10.0 Employer's and Contractor's Risks

The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11.0 Employer's Risks

11.1 The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works in India, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the Works, other than the Contractor's design.

12.0 Contractor's Risks

All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

13.0 Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Contract Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant and Materials;
- (b) loss of or damage to Equipment;
- (c) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
- (d) Personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of insurance shall not be made without the approval of the Engineer.

13.5 Both parties shall comply with any conditions of the insurance policies.

14.0 Site Investigation Reports

The site investigation reports in the bid are only for guidance and contractor should carry his own investigation before quoting offer.

15.0 Queries about the Contract Data

15.1 The Engineer will clarify queries on the Contract Data.

16.0 Contractor to Construct the Works

16.1 The Contractor shall construct and install the Works in accordance with the Specification and Drawings.

17.0 The Works to be completed by the Intended Completion Date

17.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the program submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

18.0 Approval by the Engineer

18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.

18.2 The Contractor shall be responsible for design of Temporary Works.

18.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

18.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works where required.

18.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

19.0 Safety

19.1 The Contractor shall be responsible for the safety of all activities on the Site.

20.0 Discoveries

20.1. Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

21.0 Possession of the Site

21.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be cause of extension of the intended completion date.

22.0 Access to the Site

22.1 The Contractor shall allow the Engineer and any person authorized by the Engineer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

23.0 Instructions

23.1 The Contractor shall carry out all instructions of the Engineer pertaining to works which comply with the applicable laws where the Site is located.

23.2 The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

24.0 Disputes

24.1 If the Contractor believes that a decision taken by the Engineer was either outside the authority given to the Engineer by the Contract or that the decision was wrongly taken, the decision shall be referred to the Dispute Review Expert within 14 days of the notification of the Engineer's decision.

25.0 Procedure of Disputes

The Employer proposes that Concerned C.E. shall be appointed as Dispute Review Expert under the Contract, at a daily fee as indicated in Appendix plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in the Bid. If in the Letter of Acceptance, the Employer has not agreed on the appointment of the Dispute Review Expert, the Dispute Review Expert shall be appointed by the C.E.O MIDC.

25.2 For works costing above Rs.5 Crore the procedure for arbitration will be as per G.R of Law &Judiciary Department issued vide Sankirn - 2016/C.R. 20/ Ka-19 dt. 13/10/2016 regarding“ Institutional Arbitration Policy”.

26.0 Replacement of Dispute Review Expert

26.1 Should the Dispute Review Expert resign or die, or should the Employer and the Contractor agree that the Dispute Review Expert is not fulfilling his functions in accordance with the provisions of the Contract, a new Dispute Review Expert will be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Dispute Review Expert shall be designated by the Appointing Authority designated in the Contract Data at the request of either party, on receipt of such request.

B. TIME CONTROL

27.0 Programme

27.1 within the time stated in the Contract Data the Contractor shall submit to the Engineer for approval a Programme showing the general methods, arrangements, order, and timing for all the activities in the Works along with monthly cash flow forecast.

27.2 An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.

27.3 The Contractor shall submitted the Engineer, for approval, an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted

27.4. The Engineer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

28.0 Extension of the Intended Completion Date

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

28.2 The Engineer shall decide whether and by how much to extend the Intended Completion Date within 35 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information.

If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date. In case due to the reasons beyond control of contractor, if the contractor is not able to complete the work within stipulated date of completion. Contractor has to apply to the Engineer in writing the extension in time limit. Engineer shall verify the facts and submit the proposal of grant of extension in time limit to the competent authority. The decision of the competent authority shall be communicated to the contractor accordingly.

29.0 Deleted

30.0 Delays Ordered by the Engineer

30.1 The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works.

31.0 Management Meetings

31.1 Either the Engineer or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

31.2 The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

32.0 Deleted

C. QUALITY CONTROL

33.0 Identifying Defects

33.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

34.0 Tests

If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the testing charges and reinstatement charges shall be reimbursed to the contractor.

35.0 Correction of Defects

35.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

35.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice.

36.0 Uncorrected Defects

If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected & work will be carried out at the risk and cost of contractor and the. Cost of rectified defect will be recovered from the amount due to contractor

D. COST CONTROL

37.0 Bill of Quantities

37.1 the Bill of Quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.

37.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

38.0 Claim for Quantities entered in the Tender or Estimate:

38.1 Quantities in respect of the several items shown in the tender are approximate & no revision in the tendered rate shall be permitted in respect of any of the items so long as, subject to any special provision contained in the specifications prescribing different percentage of permissible variation, the quantity of the item does not exceed the tender quantity by more than 25% & so long as the value of the excess quantity beyond this limit at the rate of the item specified in the tender is not more than Rs.5,000/-.

38.2 The contractor shall, if ordered in writing by the Engineer to do so, carry out any quantities in excess of the limit mentioned above in sub-clause (1) hereof, on the same conditions as & in accordance with the specifications in the tender & at the rates (i) derived from the rates entered in the current Schedule of Rates & in absence of such rates, (ii) at the rate prevailing in the market. The said rate being increased/decreased as the case may be, by the percentage which the total tendered amount bears to the estimated cost of the work as put to tender based on Schedule of Rates applicable to the year in which the tender was invited. For the purpose of operation of this clause, this cost shall be taken to be worked out from the DSR prevailing at the time at the acceptance of tender.

38.3 This clause is not applicable to extra items

38.4 There is no change in the item rate if the excess is more than 25% of the tendered quantity but the value of excess work at the tendered rate does not exceed Rs.5000/-

38.5 The quantities to be paid at tendered rate shall include

a) Tendered quantity plus

b) 25% excess of the tendered quantity or the excess quantity of the value of Rs.5000/- at the tendered rates, whichever is more.

39.0 Deleted

40.0 Deleted

41.0 Cash Flow Forecasts

41.1 When the Programme is updated, the contractor is to provide the Engineer with an updated cash flow forecast.

42.0 Payment Certificates

42.1 The Contractor shall submit to the Engineer monthly statements of the estimated value of the work completed less the cumulative amount certified previously.

42.2. The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amounts and under conditions set forth in sub-clause 51(3) of the Contract Data (Secured Advance).

42.3. The value of work executed shall be determined by the Engineer.

42.4. The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

42.6. The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

43.0 Payments

43.1. Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of the contract and taxes at source, as applicable under the law. The bill shall be paid after due verification and upon availability of budget.

43.2. If an amount certified is increased in a later certificate as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

43.3. Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

44.0 Compensation Events

44.1 extension may be considered on merits if not on part of Contractor

44.2 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Engineer.

45.0 Tax

45.1 The rates quoted by the Contractor shall be deemed to be inclusive of all cess, royalty, duties that the Contractor will have to pay for the

performance of this Contract but excluding GST .The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

46.0 Currencies

46.1 All payments shall be made in Indian Rupees.

47. Price Variation clause:

For all the works the Escalation/DEscalation for material such as steel, structural steel, cement, bitumen, pigiron, MS plates & also general escalation shall be applicable as per the price variation clause enclosed in this document.

48.0 Retention

48.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works.

48.2 On Completion of the whole of the Works total amount retained is repaid to the Contractor after successful completion of defect liability period as per specification of contract document.

48.3 Deleted

49.0 Liquidated Damages

49.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities.

49.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the over payment calculated from the date of payment to the date of repayment at the rates specified in Sub Clause 43.1.

49.3. If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for everyday or part of day which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works on the relevant section, subject to the limit stated in the contract data. The employer may, without prejudice to any other method of recovery deduct the amount of such damages from any monies due or to become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works on from any other of his obligations and liabilities under the contract.

49.4. If, before the Time for Completion of the whole of the Works or, if applicable, any Section, a Taking - Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or of that Section shall, for any period of delay after the date stated in such Taking-Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

50.0 Deleted

51.0 Secured Advance -

The Engineer shall make advance payment in respect of materials intended for but not yet incorporated in the Works in accordance with conditions stipulated in the Contract Data.

52.0 Securities

52.1 The Performance Security (including additional security for unbalanced bids) shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in Indian Rupees The Performance security (ISD) shall be refunded along with final bill and Additional performance security shall be refunded after 90 days from .date of completion of work

54.0 Cost of Repairs

54.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

55.0 Completion

55.1 The Contractor shall request the Engineer to issue a Certificate of Completion of the Works and the Engineer will do so upon deciding that the Work is completed.

56.0 Taking Over

56.1 The Employer shall take over the Site and the Works within seven days of the Engineer issuing a certificate of Completion.

57.0 Final Account

57.1. The Contractor shall supply to the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.

58.0 Operating and Maintenance Manuals-

58.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

58.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

59.0 Termination

59.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

59.2 Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) the Contractor stops work for 15 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Engineer;
- (b) the Engineer instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 28 days;
- (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) a payment certified by the Engineer is not paid by the Employer to the Contractor within 56 days of the date of the Engineer's certificate;
- (e) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- (f) the Contractor does not maintain a security which is required;
- (g) the Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and
- (h) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

59.3 When either party to the Contract gives notice of a breach of contract to the Engineer for a cause other than those listed under Sub Clause 59.2 above, the Engineer shall decide whether the breach is fundamental or not.

59.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

59.5 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site, Soon as reasonably possible.

60.0 Payment upon Termination

60.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.

60.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer shall issue a certificate for the value of the work done, the cost of balance material brought by the contractor and available at site,

the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

61.0 Property

61.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's default.

62.0 Release from Performance

If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

F. SPECIAL CONDITIONS OF CONTRACT

1. LABOUR:

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport. The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

2. COMPLIANCE WITH LABOUR REGULATIONS:

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer. The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

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

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

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

(c) Employees P.P. and Miscellaneous Provision Act 1952:- The Act Provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:

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

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

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

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

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

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

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

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

(i) Payment of Bonus Act 1965 :- The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

(j) Industrial Disputes Act 1947 :- The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations

a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

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

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

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

(n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979 :- The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home upto the establishment and back, etc.

(o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996 :- All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

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

3. ARBITRATION

3.1. The Employer proposes that Concerned C.E. shall be appointed as Dispute Review Expert under the Contract, at a daily fee as indicated in Appendix plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in the Bid. If in the Letter of Acceptance, the Employer has not agreed on the appointment of the Dispute Review Expert, the Dispute Review Expert shall be appointed by the C.E.O MIDC.

3.2 For works costing above Rs.5 Crore the procedure for arbitration will be as per G.R of Law & Judiciary Department issued vide Sankirn-2016/C.R. 20/ Ka-19 dt. 13/10/2016 regarding “ Institutional Arbitration Policy”.



MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION

Contractor Data Report

Items marked "N/A" do not apply in this Contract		Clause Reference with respect to Section - 3
1.	The Employer is CEO MIDC Name : Chief Executive Officer Address : MIDC,Mumbai	[Cl.1.1]
2.	The Engineer is Concerned EXECUTIVE ENGINEER(Div Amaravati)	
3.	The Dispute Review Expert appointed by the employer is:	[Cl.1.1]
	*Name :Chief Engineer	
	*Address :Zone Nagpur	
4.	The Defects Liability Period is 60 Months from the date of Completion	[Cl.1.1 & 35]
5.	The Start Date shall be 7 days from the date of issue of the Work Order.	[Cl.1.1]
6.	The Intended Completion Date the whole of the Works is For 12 Months including monsoon period after start of work with the following milestones:	[Cl.1.1,17&28]
	Milestone dates:	[Cl.2.2,& 49.1]
	Physical Works to be completed	Period from the start date
7.	Site Location:DG - PUSAD(G.C.) INDUSTRIAL AREA	[Cl.1.1]
8.	The name and identification number of the Contract is:-SAM	[Cl.1.1]
9.	The Work Cosist of Scope of work includes... Strengthening of existing infrastructure in Pusad Growth centre.....	[Cl.1.1]
10.	The following documents also form part of the contract:..... VOLUME I,II,III,IV,V &VI	[Cl. 2.3(9)]
11.	The law, which applies to the Contract, is the law of Union of India.	[Cl.3.1]
12.	The language of the Contract documents is English	[Cl.3.1]

13.	Limit of subcontracting - 50 % of the Initial Contract Price	[CI.7.1]
14.	The Schedule of Key personnel - As per Annex-II to section I	[CI.9]
15.	The minimum insurance cover for physical property, injury and death is Rs.5 lakhs per occurrence with the number of occurrences limited to four. After each occurrence, Contractor will pay additional premium necessary to make insurance valid for four occurrences always	[CI.13]
16.	Site investigation report - To be assessed by the contractor	[CI.14]
17.	The site possession Dates shall be same day from issue of Work order to proceed with the work.	[CI.21]
18.	Fees and types of reimbursable expenses to be paid to the Dispute Review Board (To be inserted later)	[CI.25]
19.	Appointing Authority for the Dispute Review Expert-Council, CEO MIDC	[CI.26]
20.	The period for submission of the programme for approval of Engineer shall be 7 days from the issue of letter of Acceptance	[CI.27.1]
21.	The period between programme updates shall be .	[CI.27.3]
22.	The amount to be withheld for late submission of an update programme shall be 10% of compensation/day	[CI.27.3]

23.	The following events shall also be Compensation Events:	[Cl.44]
	Substantially adverse ground conditions encountered during the course of execution of work not provided for in the bidding document	
	i) Removal of underground utilities detected subsequently	
	ii) Significant change in classification of soil requiring additional mobilisation by the contractor e.g. ordinary soil to rock excavation	
	iii) Removal of unsuitable material like marsh, debris dumps etc. not caused by the contractor	
	iv) Artesian conditions	
	v) Seepage, erosion, landslide	
	vi) River training requiring protection of permanent work	
	vii) Presence of historical, archaeological or religious structures, monuments interfering with the works	
	vii) Restriction of access to ground imposed by civil. judicial, or military authority.	
24.	The currency of the Contract is Indian Rupees	[Cl.46]
25.	The Proportion of payments retained (retention money) shall be 5 % from each bill subject to a maximum of 3 % of final contract price on Estimated cost whichever is higher.	[Cl.48]
26.	Amount of liquidated damages for delay in completion of works	Rs.5000 Per day for delay in work execution/completion of work [Cl.49]

27.	Nature of Advances	Amount (Rs.)	Conditions to be fulfilled	
	Secured advance for non-perishable materials brought to site	75% of Invoice value/DS R/tendered rates whichever is lowest	<p>a) The materials are in accordance with the specification for works</p> <p>b) Such materials have been delivered to site, and are properly stored and protected against damage and deterioration to the satisfaction Engineer. The contractor shall store the bulk material in measurable stacks;</p> <p>c) The Contractor's records of requirements, orders, receipts and use of materials are kept in a form of approved by the Engineer and such records shall be available for inspection by the Engineer.</p> <p>d)The contractor has submitted with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Engineer for the purpose of valuation of the materials and providing evidence of ownership and payment thereof.</p> <p>e) Ownership of such materials shall be deemed to vest in the Employer for which the Contractor has submitted an Indemnity Bond in an acceptable format, and</p> <p>f) The quantities of materials are not excessive and shall be used within a reasonable time as determined by the Engineer</p>	[Cl.45]
28.	Repayment of Secured advance The advance shall be repaid from each monthly payments to the extent materials [for which advance was previously paid pursuant to Clause 51.4 of G. C. C.] have been incorporated into the works.			[Cl.51.4]

29.	<p>The Securities shall be for the following minimum amounts equivalent as a percentage of the Contract Price: Performance Security for 5 percent of contract price plus Rs (to be decided after evaluation of the bid) as additional security in terms of ITB Clause 29.5</p> <p>The Standard form of Performance Security acceptable to the Employer shall be an unconditional Bank Guarantee/ DD of the type as presented in Section 8 of the Bidding Documents</p>	[Cl.52]
30.	The Schedule of Operating and Maintenance Manuals N/A	[Cl.58]
31.	The date by which "as-built" drawings (in scale as directed) in 2 sets are required is within of issue of certificate of completion of whole or section of the work, as the case may be.	[Cl.58]
32.	The amount to be withheld for failing to supply "as-built" drawings by the date required is 1% of contract value .	[Cl.58]
33.	The following events shall also be fundamental breach of contract : "The Contractor has contravened Sub-Clause 7.1 and Clause 9 of GCC."	[Cl.59.2]
34.	The Percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be 20% percent.	[Cl.60]

VOLUME II

SECTION 5

TECHNICAL SPECIFICATIONS(Please refer Item wise specification attached separately at the end)

VOLUME III

SECTION 6

FORM OF BID

Description of the Works:- Pusad Indl. Area....Strengthening of existing infrastructure in Pusad Growth centre.....

To,

Address: -----

- 1.We offer to execute the Works described above and remedy any defects therein in conformity with the conditions of Contract, specification, drawings, Bill of Quantities and Addenda at the amount quoted in Bill of quantities(Schedule B)
- 2. We undertake, if our Bid is accepted, to commence the Works as soon as is reason-ably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the document.
- 3. We agree to abide by this Bid for the period of 120 days from the date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- 4. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
- 5. We understand that you are not bound to accept the lowest or any tender you may receive.
- 6. We accept the appointment of..... As the Dispute Review Expert (OR)
we do not accept appointment of the.....as the Dispute Review Expert
and propose instead that..... be appointed as Dispute Review Expert

Dated this..... Day of 20.....

Signature _____ in the capacity of _____duly authorized sign

bids for and on behalf of.....
(In block capitals or typed)
Address

.....

Witness
.....

Address
.....

Occupation
.....

Note-The bidder shall submit this form online without his financial offer. The bidder shall fill the rates online in the BOQ sheet provided in the e-tender portal only.

SECTION 7
BILL OF QUANTITIES (Schedule B)

Preamble

1. The Bill of Quantities(Schedule B) shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications and Drawings.
 2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
 3. The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all constructional plant, labour, supervision, materials, erection, maintenance, insurance, profit, royalty, cess and duties, together with all general risks, liabilities and obligations set out or implied in the Contract, but excluding GST.
 4. The rates and prices shall be quoted entirely in Indian Currency.
 5. A rate or price shall be entered against each item in the Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
 6. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no Items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
 7. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
 8. The method of measurement of completed work for payment shall be as per specification.
- Note:** The Bill of quantities (Schedule B) appearing below is for the purpose of viewing only. Neither Bidder shall type/ fill rates & amount in this BOQ nor attach any hard copy of the BOQ .The bidder shall fill the rates online in the BOQ sheet provided in the e-tender portal only.

SECTION 8

SECURITIES AND OTHER FORMS

BANK GUARANTEE PROFARMA

To,

_____ [name of Employer]

_____ [address of Employer]

WHEREAS _____ [name and address of Contractor] (hereafter called “The Contractor”) has undertaken, in pursuance of Contract No. _____

dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called “the Contractor”)

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee.

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of _____ [amount of guarantee]* _____ (in words), such sums being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show ground or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between your and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

Signature and Seal of the Guarantor _____

Name of Bank _____

Address _____

Date _____

* An Amount shall be inserted by the Guarantor, representing the percentage the contract price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

Note:- Bank guarantee shall be released as under

- a) performance security shall be released along with final bill.
- b) Additional performance security shall be released within 3 months from date of completion of work.

**INDENTURE FOR SECURED ADVANCES
FROM 31**

(For use in cases in which the contract is for finished work and the contractor has entered into an Agreement for the execution of a certain specified quantity of work in a given time.)

This indenture made on the _____ day of _____, 20 _____ BETWEEN _____ (hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his executors, administrators and assigns) or the one part and the employer of the Other Part.

Whereas by an agreement dated _____ (hereinafter called the said agreement) the contractor has agreed. AND WHEREAS the contractor has applied to the Employer that he may be allowed advanced on the security of materials absolutely belonging to him and brought by him to the site of the works, the subject of the said agreement for use in the construction of such of the works as he has undertaken to executive at rates fixed for the finished works (inclusive of the cost of materials and labour and other charges) AND WHEREAS the Employer has agreed to grant advance to the Contractor the sum of Rupees

_____ on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advances attached to the Running Account bill for the said works signed by the Contractor on _____ and the Employer has reserved to himself the option of making any further advance or advance on the security of other materials brought by the Contractor to the site of the said works.

Now THIS INDENTURE WINTNESSES that in pursuance of the said agreement and in consideration of the sum of Rupees

_____ on or before the execution of these presents paid to the Contractor by the Employer (the receipt where of the Contractor doth hereby acknowledge) and of such further advance (if any) as may be made to him for the said Contractor doth hereby covenant and agree with the President and declare as follows :

- (1) That the said sum of Rupees _____ so advanced by the Employer to the Contractor as aforesaid and all or any further sum or sums advanced as aforesaid shall be employed by the Contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- (2) That the materials details in the said Account of Secured Advances which have been offered to and accepted by the Employer as security are absolutely the Contractor's own propriety and free from encumbrances of any kind the contractor will not make any application for or receive a further advance of the security of materials which are not absolutely his own property and free from encumbrances of any kind and the contractor indemnified the Employer against all claims to any materials in respect of which an advance has be made to him as aforesaid.
- (3) That the materials detailed in the said account of Secured Advance and all other materials on the security of which any further advance or advance may hereafter be made as aforesaid (hereafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Engineer.
- (4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Engineer or any officer authorised by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same required by the Engineer.
- (5) That the said materials shall not be on any account be removed from the site of the said works except with the written permission of the Engineer or an officer authorized by him on that behalf
- (6) That the advance shall the Employer of the price payable in full when or before the Contractor receives payment from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payment are made to the Contractor on account of work done than on the occasion of each such payment the Employer will be at liberty to make a recovery from the contractor's bill for such payment by deducting there from the value of the said materials than actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates are which the amounts of the advances made under these presents were calculated.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing of the Employer shall immediately on the happening of such default be repayable by the Contractor to the Employer together with interest thereon at twelve percent 16.30% per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs, charges, damages and expenses incurred by the Employer in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the Employer to reply and pay the same

respectively to him accordingly.

(8) That the contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rupees _____ and any further sum or sums advanced as aforesaid and all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the power contained therein if and whenever the covenant for payment and repayment here-in-before contained shall become enforceable and the money owing shall not be paid in accordance there with the Employer may at any time thereafter adopt all or any of the following courses as he may deem best :

(a) Seize and utilise the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provisions in that behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and the amount due to the contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor, he is to pay same to the Employer on demand.

(b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the Employer under these presents and pay over the surplus (if any) to the Contractor.

(c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said advance shall not be payable.

(9) That except in the event of such default on the part of the contractor as aforesaid interest on the said advance shall not be payable.

(10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been here-in-before expressly provided for the same shall be referred to the Employer whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.

LETTER OF ACCEPTANCE

By Hand/RPD

No./TC/IFMS/ / 201
Office of the Executive Engineer
M. I. D. C. , Division,
.....

Date:

To,

.....,
.....,
.....

Sub:

.....

Estimated Cost :- Rs.....

Ref :- 1) E- Tender Notice No. /2018 dt.
2) Tender opened on / /2018.

Dear Sir,

This is inform to you that your offer to execute the subject work is finally approved atbelow/above to the estimated cost of Rs.i.e. for Rs. You are, requested to pay Initial Security Deposit (ISD) of **Rs.** (**Rs.**) in the form of Bank Guarantee drawn in favour of the “” on any Nationalized Bank or Bank approved by Government of Maharashtra payable at.....

You will have to pay the stamp duty of Rs.(Rs.....) through Government Receipt Accounting System (GRAS) to the state Government. Memorandum page is enclosed herewith for your information and necessary action.

Please comply with the above requirements and attend this office for completing contract formalities within 7 days from issue of this letter. If you fail to do so, it will be presumed that you are not interested to execute the subject work & action deemed fit will be initiated, which may please be noted.

Thanking you,

Your faithfully,

**Executive Engineer
MIDC..... Division,**

WORK ORDER

By Hand/RPD

&nb

AGREEMENT FORM

This agreement, made the _____ day of _____ between _____ (name and address of the Employer) [hereinafter called "the Employer] and _____ (name and address of contractor) hereinafter called "the Contractor" of the other part. Whereas the employer is desirous that the Contractor execute _____ (name and identification number of Contractor) (hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a cost of Rs _____

NOW THIS AGREEMENT WITNESSTH as follows :

(1) In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.

(2) In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to all aspects with the provisions of the contract.

(3) The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

(4) The following documents shall be deemed to form and be ready construed as part of this agreement viz.

- i) Letter of Acceptance
- ii) Notice to proceed with the works
- iii) Invitation for bid
- iv) Contractor's Bid
- v) Instruction to bidders
- vi) Condition of contract : General and Special
- vii) Contract Data
- viii) Additional clauses and other conditions
- ix) Drawings
- x) Bill of Quantities and
- xi) Specifications

xii) Any other documents listed in the Contract Data as forming part of the Contract. In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____ was hereunto affixed in the presence of :

Signed, Sealed and Delivered by the said _____

in the presence of :

Binding Signature of Employer _____

Binding Signature of Contractor _____

VOLUME IV

VOLUME V

SECTION 10

DOCUMENTS TO BE FURNISHED BY BIDDER (Attached)

VOLUME VI

SECTION 11

CLAUSES AND GENERAL CONDITIONS

Sr. No.	Particular
1	Clause for payment of stamp duty
2	Clause for recovery of labour cess
3	Clause for recovery of additional performance security
4	Special condition for royalty payment
5	Clause for reimbursement of Taxes / Duties
6	Insurance of work
7	Standard cement consumption statement
8	Cement variation clause
9	Maintenance guarantee clause During defect liability period
10	List of defects required to be observed & rectified by contractor during defect liability period.
11	Price variation clause
12	Registration under contract labour act-1970 & deduction of Income tax
13	Deduction of income tax
14	Third Party Inspection
15	Quality audit clause
16	Special condition for asphalt -challan
17	Clause for Idle machinery
18	Goods & service tax clause
19	Common condition & additional contract conditions
20	Additional contract conditions regarding steel & cement material supply of cement
21	Additional clause for work costing more than Rs. 50 lakhs for site office
22	Clause for joint venture
23	Annexure A Joint venture condition

24	Annexure B MoU for JV agreement
25	Special clause for PMC

CLAUSE FOR PAYMENT OF STAMP DUTY

As per Article 63 of Schedule - I of Bombay Stamp Act 1958, stamp duty charges shall be as follows: Works contract that is to say a contract for works and labour or services involving transfer of property in goods (whether as goods or in some other form) in its execution and includes sub-contract.

a)	Where the amount or value set	Rs.500/- (Five hundred rupees)
	forth in such contract does not	
	exceed Rs.5 lakhs	
b)	Where it exceeds Rs.5 lakhs	Five hundred rupees plus 0.3 per
		cent of the amount above rupees five
		lakhs subject to maximum of rupees
		twenty five lakhs

The contractor whose offer will be accepted will be called for execution of the agreement and shall only be liable to pay the stamp duty applicable thereon. The payment of stamp duty of required amount shall be done by the contractor through Government Receipt Accounting System (GRAS) to the State Govt.

CLAUSE FOR RECOVERY OF LABOUR CESS

The Govt. of Maharashtra vide its decision dated 17/06/2010 has decided to recover Labour cess on all the construction works undertaken by Govt., Public sector undertaking and Municipal Corporation, Municipal Councils, Gram Panchayat etc.

The contractors are therefore requested to note that labour cess at 1% of the cost of construction (excluding land cost) arrived at after deducting amount of compensation if any paid to the workers or their relatives under workers compensation Act 1923 will be recovered from them. The recovery of labour cess at 1% shall be made from the payment due for each bill to be paid to the contractor.

CLAUSE FOR RECOVERY OF ADDITIONAL PERFORMANCE SECURITY

FOR THE TENDERS RECEIVED BELOW THE ESTIMATED COST AND ADDITIONAL SECURITY DEPOSIT FOR THE QUANTITIES EXCEEDING 125% AND EIRLs

A) Clause for Recovery of additional Performance Security for the tenders received below the estimated cost

1) In case the contractor has quoted the offer for tender below the estimated cost, then the contractor shall have to pay additional Performance Security in the form of DD/BG of the amount as mentioned below:

a) No additional performance security deposit will have to be paid if the tender offer is received up to 1% below the estimated cost, however if the offer quoted is 1.01 to 10% below the estimated cost, then the additional Performance Security amount shall be 1% of the estimated cost.

b) If the offer quoted is more than 10% below up to 15% below the estimated cost, then the additional performance security deposit shall be equal to the amount of percentage more than 10% below + the amount as per (a) above. (For example, if the tender received at 14% below, the additional performance security shall be – up to 10% = 1% + (14%-10%) = 1 + 4 = Total 5% of the estimated cost).

c) If the offer quoted is more than 15% below the estimated cost, then the additional performance security deposit shall be equal to double the amount of percentage more than 15% below + 1% for each percentage beyond 10% up to 15% + the amount as per (a) above. (For example, if tender received at 19% below equal to for first 10% below 1% + (15-10=5) + 2 X (19-15=4)) = 1% + 5% + 8% = 14%).

2) The DD/BG towards additional performance Security shall be drawn in favor of the Executive Engineer concerned. For the amount upto Rs. 50,000/- only the DD shall be accepted & for the amount above Rs.50,000/- DD / BG shall be accepted.

3) It is mandatory to have MICR and IFSC code of the Bank on the DD.

4) The contractor shall submit the original DD/BG towards additional performance security within 8 working days from the date of opening of 2nd envelope. DD/BG towards additional performance security will not be accepted after 8 working days from the date of opening of 2nd envelope in any case.

5) Contractors whose DD/BG towards additional performance security are found false or if he fails to submit the DD/BG within prescribed time limit of 8 working days from the date of opening of 2nd Envelope, then all such contractors shall be banned from submitting the tenders in MIDC for a period of one year & the EMD of such contractors shall be forfeited

6) Further in such cases after forfeiting EMD of the lowest agency (L-1 contractor), the L-2 contractor shall be asked in writing whether he is ready to execute the work at the rates lower than L-1. If the L-2 contractor agrees, then additional performance security deposit shall be obtained from L-2 contractor and his tender with revised offer shall be accepted or recommended for approval.

7) The additional performance security shall be refunded to the contractor within 3 months. from the date of completion of work.

8) The validity of BG of additional performance security is 3 months after intended date of completion of work.

B) Clause for recovery of additional security deposit for the quantities exceeding 125% and extra Item Rate List(EIRL)

It shall also be noted that security deposit for the quantities exceeding 125% of the tendered quantities and/or EIRL, Shall also be deducted at the % to be recovered through bills (i.e. in cash) as mentioned in the tender text.

The security deposit so recovered in above events shall be refunded after satisfactory completion of defect liability period

SPECIAL CONDITION FOR ROYALTY PAYMENT

Clause regarding recovery of royalty charges through the bills of contractor towards Minor Minerals such as murum, excavation, sand, metal etc. work done by the contractor

1. It shall be noted by the contractor that the amount of royalty charges towards the minor minerals (Excavation, murum, metal, sand etc.) consumed/used by the contractor for the work will be deducted from his bills and will be paid to the concerned Revenue Dept. by MIDC.
2. The contractor shall obtain above types of minor minerals from Govt. approved quarries or from the private land after obtaining legal permission from the concerned authorities. However, in case the contractor brings the material from unauthorized quarries or in illegal manner, he shall be fully responsible for any legal action taken by the Revenue or any Govt. authorities against him for such unauthorized or illegal act, even though the royalty
3. Charges are recovered from his bills and paid to be Revenue Department. He shall also indemnify MIDC officers from any legal action so taken by the Govt. authorities for default on his part.
4. The contractor shall give an undertaking on court fee stamp of Rs.500/- for indemnifying MIDC officers from any legal action taken by Govt. as detailed above.

CLAUSE FOR REIMBURSEMENT OF TAXES/DUTIES

While submitting the tender, the contractor shall consider the prevailing taxes & duties on the date of submission. In case there is statutory increase in the taxes/duties, the contractor shall submit documentary evidence for the payment of the same. On verification of the documents, the reimbursement will be made if there is increase. In case there is reduction in the statutory taxes/duties, deduction will be effected. It may also be noted that this clause is not applicable if there is increase in the octroi during execution of the work.

=====

CLAUSE FOR INSURANCE OF THE WORK

1.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Contract Period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

(a) loss of or damage to the Works, Plant and Materials;

(b) loss of or damage to Equipment;

(c) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and

(d) Personal injury or death.

1.2 Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

1.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

1.4 Alterations to the terms of insurance shall not be made without the approval of the Engineer.

1.5 Both parties shall comply with any conditions of the insurance policies.

STANDARD CEMENT CONSUMPTION STATEMENT

Item of Work	Rate of Cement Consumption in bags.	Remarks	
A] Cement Concrete (Nominal Mix)			
		Lower Limit	Upper Limit
1:5:10 (M-5)	2.60/m ³	2.35	2.85
1:4:8 (M-7.5)	3.10/m ³	2.8	3.4
1:3:6 (M-10)	4.10/m ³	3.8	4.4
1:2:4 (M-15)	6.20/m ³	5.9	6.5
1:1½:3 (M-20)	8.20/m ³	7.9	8.5
1: 1: 2 (M-25)	8.70/m ³	8.4	9
B] Cement Concrete (Design Mix)	Minimum cement consumption for Design Mix		
M-15	5.80/m3	The grater value of either the minimum cement content specified or cement consumption as per design mix will prevail during execution of work.	
M-20	6.60/m3		
M-25	6.60/m3		
M-30	7.00/m3		
M-35	7.50m3		
M-40	8.00/m3		
C] Brick Masonry II Class with 30% mortar			
CM - 1:8	1.05/m ³		
CM - 1:6	1.40/m ³		
CM - 1:5	1.70/m ³		
CM - 1:4	2.10/m ³		
D] 115 mm thick Brick Masonry II Class			
CM - 1:3	0.28/m ²		
E] Brick Masonry I Class without pointing with 25% mortar			
CM - 1:6	1.15/m ³		
CM - 1:5	1.40/m ³		
CM - 1:4	1.70/m ³		
F] UCR Masonry without pointing with 35% mortar			
CM - 1:6	1.70/m ³		
CM - 1:5	2.00/m ³		
CM - 1:4	2.50/m ³		

G] UCR Masonry without pointing with 45% to 50% mortar			
CM - 1:6	2.15/m ³		
CM - 1:5	2.60/m ³		
CM - 1:4	3.10/m ³		
H] Laterite Stone Masonry with 18% mortar			
CM - 1:6	0.85/m ³		
CM - 1:5	1.00/m ³		
CM - 1:4	1.30/m ³		
I] Cement Plaster with Cement mortar 1:3 (neeru finish)			
6 mm	0.07/m ²		
12 mm	0.13/m ²		
20 mm	0.20/m ²		
25 mm	0.23/m ²		
40 mm	0.40/m ²		
J] Cement Plaster with Cement mortar 1:4 (without neeru finish)			
6 mm	0.06/m ²		
12 mm	0.11/m ²		
20 mm	0.17/m ²		
25 mm	0.22/m ²		
40 mm	0.34/m ²		
K] Coursed Rubble masonry with pointing 30% mortar			
1:6 CM	1.70/m ³		
1:5 CM	2.00/m ³		
1:4 CM	2.50/ m ³		
L] Sand Faced plaster CM 1:3			
12 MM	0.20/m ²		
20 MM	0.23/m ²		
25 MM	0.25/m ²		
M] Cement plaster without neeru finish CM 1:3			
6 MM	0.07/m ²		
12 MM	0.13/m ²		
20 MM	0.20/m ²		
25 MM	0.25/m ²		
N] Cement plaster with neeru finish CM 1:4			
6 MM	0.06/m ²		
12 MM	0.10/m ²		
20 MM	0.17/m ²		

25 MM	0.22/m ²		
O] Decorative texture plaster			
CM 1:4	0.15/m ²		
P] Neat Cement Finish over green surface			
1.5 mm Thick	0.04/m ²		
Q] Wet on wet finish CM 1:3			
12 MM	1.05/m ²		
R] Pointing with Cement Mortar 1:3			
Brick Masonry	0.03/m ²		
Stone Masonry	0.05/m ²		
S] Paving and Flooring			
Shahabad / Tandur / Kotta / Kaddapa Chequered tiles / plain cement tiles / marble / mosaic / granite CM 1:4 bed and with pointing 1:3	0.19/m ²		
Skirting & Daddo	0.30/m ²		
Shahabad / Tandur / Kadappa CM 1:6	0.14/m ²		
White / coloured glazed tiles	0.28/m ²		
Granite stone facing plaster CM 1:3	0.20/m ²		
Ceramic tiles	0.22/m ²		
IPS flooring 40 mm	0.30/m ²		
T] Colgrout Masonry with 45 % mortar			
Cement 1:3 sand mortar	3.54/m ³		
U] Gunning CM 1:3			
25 MM	0.28/m ²		
40 MM	0.45/m ²		
50 MM	0.55/m ²		
V] Water proofing			
Box type water proofing	0.80/m ²		
Water proofing by injection grouting	1.00/m ²		
Water proofing on terrace slab	0.50/m ²		

CEMENT VARIATION CLAUSE

The rates in Schedule are based on the above stated rates of cement consumption. The permissible variation in the cement consumption shall be as given under Item No.1 above. For rest of the item permissible variation shall be + 5% of figures give above. If the actual consumption on any work is below these limits, reduced rates shall be paid (considering double the prevailing market rate) for any item of work on which less cement has been used below limit of -5%. If consumption goes beyond the limit of +5% the same shall not be paid.

It may be noted that when specifically ordered out to adopt richer mix than specified in the tender, the excess cement so consumed above the specified mix in the tender, the same will be paid at prevailing market rate. However, for cement saved due to adoption of poorer mix when so specifically directed by the department, a reduced rate will be paid (as per prevailing market rate).

For excess/less cement use on work as per cement variation clause the standard consumption for cement shall be as per table given above.

MAINTENANCE GUARANTEE CLAUSE DURING DEFECT LIABILITY PERIOD

1. The contractor will have to guarantee the work executed under the agreement for a period of 60 Months from the date of completion of the work. During this period of 60 Months, the contractor will have to make good all damages caused to the works done by him under this agreement, to the full satisfaction of Engineer-in-charge, without charging any extra cost. The repairs to defects due to bad workmanship shall be done.

2. The contractor will have to maintain the work done by him under this agreement in good condition during the defect liability period. The list of defects to be observed and rectified is attached separately in the tender document.

3. The contractor will have to carry out the repairs within 8 days from the date of intimation by MIDC about the damages.

4. If during the guarantee period, the company/contractor's firm gets dissolved or some new partners are introduced, then the responsibility to maintain the work done under this agreement during the defect liability period will have to be borne by the new Company/Contractor's firm.

5. For enforcing this guarantee, 5.00 % Security Deposit of estimated cost or tendered cost whichever is higher, shall be recovered from the contractor as under:

a) 2.00 % initial security deposit in the form of DD/BG at the time of issue of work order.

b) 3.00 % to be recovered through RA bills.

Out of this 5.00 %, the initial security deposit of 2.00 % in the form of BG/DD will be released alongwith the final bill. However, remaining 3.00 % recovered through RA Bills shall be released after completion of defect liability period or after 60 Months from the date of completion of work.

Before releasing such security deposit after 60 Months or after the defect liability period, the Executive Engineer along with the representative of the contractor shall inspect the work & if the work is found to be satisfactory then only 3.00 % security deposit shall be released.

6. Considering the guarantee offered by the contractor, the contractor is requested to thoroughly inspect & study the site conditions before quoting for this work. No extra claim on this account will be entertained later.

7. If certain works are neglected by the contractor, the same shall be carried out by the department at the risk & cost of the contractor. The cost of the same shall be recovered from the amount balance with MIDC.

8. Before starting the work, the contractor will have to give in writing, guarantee on stamp paper of Rs.500/- for free maintenance of work done by him for the period of 60 Months from the date of completion of work.

9. This Maintenance Guarantee Clause supersedes all clauses regarding security deposit mentioned elsewhere in this tender.

**LIST OF DEFECTS REQUIRED TO BE OBSERVED AND RECTIFIED BY THE CONTRACTOR DURING THE
DEFECT LIABILITY PERIOD**

For WBM Road, CD works & Asphaltting Works

1. Sinking of embankment, side shoulders, forming depressions, forming boils etc.
2. Developing pot holes, ruts, boils, wavy surface.
3. Sinking of road at CD Works, forming depressions/ bumps.
4. Underpinning at CD works.
5. Developing longitudinal cracks.
6. Side shoulders not developed and compacted to level of asphalted road surface.
7. Damage of NP2/NP3 Class pipes and pipe joints of CD works.
8. Damage of UCR masonry.
9. Sinking of cushioning over CD works pipes.
10. Peeling out of pointing of UCR masonry.
11. Developing horizontal and vertical cracks to UCR masonry, coping, concrete and plaster.
12. Any other defect critical or logical defect informed by Engineer-in-charge.

For Building: -

1. Sinking of foundation.
2. Crack in plaster by side of column/ beams etc.
3. Sinking of floor/ developing of cracks in floor, wavy tiles etc.
4. Leakages through roof slab, chajja, masonry joints etc.
5. Leakages in & through toilet block, joints of all pipes, fittings etc.
6. Leakages/ Dampness through roof/ walls.
7. Damage to roofing materials like AC sheets.
8. Bulging of door frames, door shutters, warping of frames/ shutter.
9. Improper functioning of tower bolts, hand rails, hinges, handles, other fixtures.
10. Damage to Aluminum window frame and shutter.
11. Leakages through water pipes and sanitary pipes.
12. Peeling of plaster / paint.
13. Leakages through structural glazing due to improper fixing of panels.
14. Any other defect critical or logical defect informed by Engineer-in-charge.

For Electrical Works:

1. Cables getting damaged/ overheated.
2. Burning of switches.
3. Damage of switchgears/ earthling etc.
4. Damage or improper functioning of pumps.
5. Wall bracket swings due to breeze.
6. Cables getting damaged due to inadequate cover/ protection (improper laying of cable.)
7. Painting peeled off/ faded.
8. Improper functioning of lamps and included fixtures.
9. Any other defects critical or logical defect informed by Engineer-in-charge.

10. Water retaining structures

- i) Hydraulic test not as per norms.
- ii) Leakages through floor, side walls, through joints of pipes and concrete and inlet/ outlet connection.

1. Pipelines:

- i) Painting peeled off/ faded.
- ii) Tilting of supports.
- iii) Leakages through pipe joints.
- iv) Leakages through joints of specials.
- v) Gaps between pipes and supports.
- vi) Failure of specials, Sluice Valves, Air Valves supplied and erected.
- vii) Hydraulic test not as per norms.

2. Sewers:

- i) Sinking of line.
- ii) Cracking of pipes for want of bedding.
- iii) Leakages through joints.
- iv) Chamber height not at least 0.6 m above ground.
- v) Hydraulic test not as per norms.
- vi) Sinking of supports.
- vii) Peeling of plaster provided for manhole chamber.

3. ESR/ GSR/ Collection sumps:

- i) Leakages through floor, side walls, through joints of pipes and concrete.
- ii) Plaster peeling off.
- iii) Vertical cracks in walls.
- iv) Level indicator properly working.
- v) Lightening conductor provided whether in good conditions.
- vi) Hydraulic test not as per norms.

Note:

- i. Any other defect over and above those mentioned above or any defect as an when pointed out by the Engineer-in-charge will have to be attended satisfactorily by the contractor at his own cost during the defect liability period.
- ii. Out of the above mentioned defects, the defects relevant to the work executed under this contract shall only be observed.

PRICE VARIATION CLAUSE FOR MATERIALS AS PER STAR RATES.

If during the operative period of the contract as defined in condition (i) below, there shall be any variation in the Consumer Price Index (New Series) for Industrial workers for MUMBAI Centre as per the Labour Gazette published by the Commissioner of Labour, Govt. of Maharashtra &/or in the Wholesale Price Index for all commodities prepared by the Office of Economic Adviser, Ministry of Industry, Govt. of India, or in the price of petrol/oil & lubricants & major construction materials like bitumen, cement, steel, various types of metal pipes etc, then subject to the other conditions mentioned below, price adjustment on account of

- i.Labour component
- ii.Material component
- iii.Petrol, oil & lubricant components
- iv.Bitumen component
- v.HYSD & mild steel component
- vi.Cement component
- vii.CI & DI pipes component

Calculated as per the formula hereinafter appearing, shall be made. Apart from these, no other adjustment shall be made to the contract price for any reason whatsoever. Component percentage as given below is as of the total cost of work put to tender. Total of labour, material & POL components shall be 100 & other components shall be as per actual's,

i) Labour component	(K1)35 %
ii) Material component	(K3)60 %
iii) Petrol, Oil & Lubricant components	(K3)05 %

iv) Bitumen component

v) HYSD & mild steel component

vi) Cement component

vii) CI & DI pipes component

Note: if cement, steel, bitumen, CI & DI pipes are supplied on Schedule-A, then respective component shall not be considered. Also, if particular component is not relevant, same shall be deleted.

Star Rate (Excluding GST)

- 1. Cement- 6000/- per MT
- 2. Bitumen VG-30- 49862/- per MT
- 3. Bitumen VG-10- 49488/-per MT
- 4. Tor steel - 61000/- per MT

1) Formula for Labour components:

V1 =

0.85P

X (K1)

X (L1-L0)

100

L0

Where

V1= Amount of price variation in Rupees to be allowed for labour component

P= Cost of work done during the quarter under consideration minus the cost of cement, HYSD & mild steel, bitumen, CI & DI pipes calculated at the basic star rates as applicable for the tender, consumed during the quarter under consideration.

K1= Percentage of LABOUR component as indicated above.

L0= Basic Consumer Price Index for MUMBAI centre shall be average consumer price index for the quarter preceding the month in which the last date prescribed for receipt of tender falls.

L1= Average Consumer Price Index for MUMBAI centre for the quarter under consideration.

2) Formula for Materials components:

$$V2 = 0.85P \times \frac{(K2)}{100} \times \frac{(M1-M0)}{M0}$$

Where

V2= Amount of price variation in Rupees to be allowed for material component

P= Same as worked out for labour component

K2= Percentage of Material component as indicated above.

M0= Basic Wholesale Price Index shall be average wholesale price index for the quarter preceding the month in which the last date prescribed for receipt of tender falls.

M1= Average Wholesale Price Index for the quarter under consideration.

3) Formula for petrol, oil & lubricant components:

$$V3 = 0.85P \times \frac{(K3)}{100} \times \frac{(P1-P0)}{P0}$$

Where

V3= Amount of price variation in Rupees to be allowed for POL component

P= Same as worked out for labour component

K3= Percentage of petrol, oil & lubricant component as indicated above.

P0= Average Price of HSD at MUMBAI, during the quarter preceding the month in which the last date prescribed for receipt of tender falls.

P1= Average Price of HSD at MUMBAI, during the quarter under consideration.

4) Formula for Bitumen Component:

$$V4 = QB (B1 - B0)$$

Where

V4= Amount of price variation in Rupees to be allowed for bitumen component

QB= Quantity of bitumen (Grade) in Metric Tonnes used in the permanent works & approved enabling works during the quarter under consideration.

B1= Current, average ex-refinery price per metric tonne of bitumen (Grade) under consideration excluding Goods

& services Tax during the quarter under consideration.

B0= Basic rate of bitumen in Rupees per metric tonne as considered for working out value of P or average ex-refinery price in Rupees per metric tonne excluding Goods & services Tax of bitumen for the grade of bitumen under consideration during prevailing quarter preceding the month in which the last date prescribed for receipt of tender falls whichever is higher.

5) Formula for HYSD & mild steel component:

$$V5 = SO \times \frac{(SI1-SI0)}{SI0} \times T$$

Where

V5= Amount of price variation in Rupees to be allowed for HYSD/ mild steel component

SO= Basic rate of HYSD/mild steel in rupees per metric tonne excluding GST as considered for working out value of P.

SI1= Average Steel Index as per RBI Bulletin during the quarter under consideration

SI0= Average of Steel Index as per RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender falls.

T= Tonnage of steel used in the permanent works for the quarter under consideration.

6) Formula for cement component:

$$V6 = \frac{CO \times (CI1 - CI0)}{CI0} \times T$$

Where

V6= Amount of price escalation in Rupees to be allowed for cement component

CO= Basic rate of cement in rupees per metric tonne excluding GST as considered for working out value of P.

CI1= Average Cement Index published in the RBI Bulletin for the quarter under consideration.

CI0= Average of Cement Index published in the RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender falls.

T= Tonnage of cement used in the permanent works for the quarter under consideration.

7) Formula for CI/DI pipe Component:

$$V7 = QD \times (D1 - D0)$$

Where

V7= Amount of price escalation in Rupees to be allowed for CI/DI pipe component

D0= Pig iron basic price in Rupees per tonne excluding GST considered for working out value of P.

D1= Average pig iron price in Rupees per tonne during the quarter under consideration (Published by The Institute of Indian Foundrymen).

QD= Tonnage of CI/DI pipes used in the works during the quarter under consideration.

The following conditions shall prevail:

i) The operative period of the contract shall mean the period commencing from the date of the work order issued to

the contractor & ending on the date on which the time allowed for the completion of work specified in the contract for work expires, taking into considering the extension of time, if any, for completion of the work granted by Engineer under the relevant clauses of the Conditions of Contract in cases other than those where such extension is necessitated on account of default of the contractor. The decision of Engineer as regards the Operative Period of the contract shall be final & binding on the contractor. Where any compensation for liquidated damages is levied on the contractor on account of delay in completion or inadequate progress under the relevant contract provisions, the price adjustment amount for the balance of work from the date of levy of such compensation shall be worked out by pegging the indices L1, M1, C1, P1, B1, SI1, CI1 to levels corresponding to the date from which such compensation is levied.

ii) This price variation clause shall be applicable to all contracts in B1, B2 and SBD forms but shall not apply to piece works. The price variation shall be determined during each quarter as per formula given above in this clause.

iii) Price variation under this clause shall not be payable for the extra items required to be executed during the completion of the work & also on the excess quantities of items payable under the provision of Clause 41/37/38 of the contract form B1 / B2/ SBD respectively. Since the rates payable for the extra items or the extra quantities under Clause 41/37/38 are to be fixed as per the current DSR or as mutually agreed to yearly revision till completion of such work. In other words, when the completion/execution of extra items as well as extra quantities under Clause 41/37/38 of the Contract Form B1 / B2/SBD extends beyond the operative date of the DSR, then rates payable for the same beyond that date shall be revised with reference to the current DSR prevalent at that time on year to year basis or revised in accordance with mutual agreement thereon, as provided for in the contract, whichever is less.

iv) This clause is operative both ways i.e. if the price variation as calculated above is on the plus side, payment on account of the price variation shall be allowed to the contractor & if it is on the negative side, MIDC shall be entitled to recover the same from the contractor & the amount shall be deductible from any amounts due & payable under the contract.

v) To the extent that full compensation for any rise or fall in costs to the contractor is not entirely covered by the provisions of this or other clauses in the contract, the unit rate & price included in the contract shall be deemed to include amount to cover the contingency of such other actual rise or fall in costs.

vi) Calculation for working out escalation payment on account of material, labour & POL will be restricted to 2 digits only.

REGISTRATION UNDER CONTRACT LABOUR ACT -1970

While submitting the tender, the tenderer should note that he should produce the certified photo copy of Registration in prescribed form issued by Labour Commissioner under Contract Labour Act, 1970, as an employer, as much as they are directly employing the workers for execution of the contract works awarded to them by MIDC & comply with the provision of the Act. After acceptance of tender by MIDC the contractor has to give intimation about work order & get this particular work registered within a period of 15 days from the date of issue of work order from labour commissioner under Contract Labour Act, 1970 failing which no permission will be granted to continue further work under the agreement.

DEDUCTION OF INCOME TAX

The Income Tax including surcharges or percentage in force from time to time or at the rate as intimated by the competent Income Tax authority shall be deducted from bill amount whether measured bill, advance payment or secured advance.

QUALITY AUDIT CLAUSE

The contractor shall note that, following exercise of Quality Audit of the work shall be carried out by the nominated authority from MIDC.

1. The quality audit of the work shall be exercised by authority nominated by MIDC at a stage when 80% of the work is completed or at stage as decided by MIDC.
2. The contractor should remain present (along with all test re-ports & necessary documents for the works) at site when quality audit of the work is being exercised.
3. Final Bill will be released for payment only after compliance of the points/remarks raised by the quality auditor with proper reasoning to the competent authority & only after receipt of clearance of nominated authority.
4. The contractor has to make all necessary rectifications, alterations to the work executed, as suggested by the quality auditor without any extra cost. If the contractor fails to do so, or does not intend to do so, then the probable amount required for the rectification shall be withheld from the bills & other dues payable to the contractor. The contractor shall be liable to pay suitable compensation as decided by the Superintending Engineer.

SPECIAL CONDITION FOR ASPHALT – CHALLAN

For the items of supply of asphalt in bulk particularly for surface dressing, tack coat items, it is obligatory and binding on the contractors to produce original asphalt challan from refinery. Asphalt in bulk shall be weighted in presence of MIDC's representative on standard weight bridge. (Gross weight of boozar and Tare weight of boozar shall be taken). Weight slip shall be furnished.

For the items of asphalt mix such as grouting, BM, AC etc. The asphalt challan of refinery in original will be acceptable. These challans are required only for verification of grade of asphalt and date on which the asphalt is procured. The escalation of asphalt shall be worked out as per the condition mentioned in the price variation clause. The original challans will be returned duly marking of these challans that "the bitumen/ Asphalt used for MIDC's work i.e. [NameOfWork] .

The asphalt brought for this work before the date of issue of work order will not be accepted, please note. The bitumen asphalt procured from Mumbai refinery will be accepted the grades of asphalt mentioned in the tender & their corresponding marker grades are as under.

Clause for Idle Machinery

It shall be explicitly noted that no claims for idle machinery /equipments/labours or any other related items will be entertained in any case, if the work is not possible to be carried out at one or more locations due to local issues or any other reasons the contractor is free to demobilize machinery/ equipment /labours etc. The agency shall have to redeploy the requisite machinery / equipment /labours etc at its own cost to the site of works after resolution of local issues /other issues, for which no separate payment will be entitled. The agency may have to work in stretches which are available for execution from time to time.

GOODS AND SERVICES TAX CLAUSE

1. The contractor in person himself or his registered firm or institute or public limited company or organization or construction agency or any other agency should be registered under GST' Regulations and authorized documents should be submitted along with the tender. (Registration Certificate duly Self Certified)
2. The contractor has to submit his GST registration number as per, requirement along with tender. The rates quoted by the tenderer should be **inclusive of all taxes, duties or any type' of taxes** which will be imposed by Central Govt or State Govt or local bodies **but excluding GST**. It shall be the responsibility of contractor to make the payment of GST to concerned department and all other taxes to relevant departments within prescribed period as per Act.
3. The rates quoted by the tenderer should be **excluding GST**.
4. GST shall be paid to the contractor on the amount of work measured and billed during the month as per prevailing rate of GST.
5. Separate GST will be paid to the agency on the payment of price variation bill.
6. As per notification No. 2/2018 issued by Govt. of India, Ministry of Finance, GST is not applicable for composite supply of goods and services in which the value of goods constitutes not more than 25% and the work involved is covered under article 243G or 243W of the constitution i.e. functions entrusted to Panchayat or Municipality.
7. The TDS of GST at a prescribed rate will be deducted as per provisions of section 51 of CGST Act 2017 at the time of payment made or invoice/bill credited to the Account of the supplier/contractor of taxable Goods and Services or both, where contract value exceeds the prescribed threshold limit presently Rupees Two lakhs and fifty thousand in a year. The deduction will be made as per provisions of section 51 of the GST Act whenever made operative.
8. The provisions of GST Law will be applicable for all types of advances given against the awarded contracts.
9. Whenever the contractor is not required to be registered under GST Act, the declaration to this effect will have to be obtained from the contractor evidencing or justifying with reasons.
10. Currencies: All payments shall be made in Indian Rupees.
11. If there is negative price variation (De-escalation), the recovery of GST will be effected.

COMMON CONDITIONS & ADDITIONAL CONTRACT CONDITIONS

1. COMMON CONDITIONS : Extra charges for any item of work shall not be allowed unless the work to which it is related is clearly within the spirit & meaning of the specification or unless such works are ordered in writing by the Engineer-in-charge & are claimed for in the specified manner before the commencement of work. The contractor shall at his own expense make all necessary provisions for housing ,water supply, electricity & sanitary arrangements for his employees at site of works as required. He shall pay directly to the concerned authorities all rates, taxes, royalties & other charges. He shall also comply with all requirements of health department of the concerned authorities.

2. MATERIALS: Unless otherwise specifically provided for either in the item or in the specifications or in the Schedule 'A' for Supply of Materials by MIDC, all items in the tender are inclusive of costs of material required for the execution of the items. Materials not stipulated to be supplied by MIDC, shall be brought by the contractor at his cost. The quality, type & make of materials used in the work shall be as per samples got previously approved from Engineer-in-charge, as mentioned in the detailed specification All rejected material shall be removed by the contractor from site of work immediately failing which the same will be got removed by MIDC at his cost.

3. WORKS: The line out of all works shall be marked by the contractor on site with permanent pillars as directed. The necessary levels will be given by MIDC. The contractor must however, provide the necessary labour & material for making out the ground & keeping all references, levels & lining props sealed in cement concrete & execute the work in accordance with those levels for which he will be responsible throughout the whole period of contract. The few bench mark pillars to be connected with MIDC benchmark shall be Constructed by the contractor at the site of work as directed for reference of various levels in connection with work. The line out if required to be carried out more than one time, the same shall be done by the contractor without extra cost.

4. CARTING: The contractor shall convey pipes, specials & other sundry materials required for the Execution of the work at his own cost. The contractor shall provide diversion to the affected existing road, if required, as directed by Engineer-in-charge at his own cost.

5. GENERAL: The contractor shall be deemed to be thoroughly conversant with the local condition such as the availability of all construction materials, skilled & unskilled labour & to have based his rates accordingly for this work. He shall be deemed to have carefully studied all the specifications & drawings & followed them before the submission of his tender.

6. In case of any discrepancy between the type of working drawings on one hand & the wording of the corresponding item & specifications thereof as per the contract, the later will be deciding for the purpose of actual execution of items. However, the Executive Engineer's decision should be obtained in the matter before hand. For a composite item, if any higher specification are to be adopted for any component as a result than specified in the item & specification therefore, extra rate will be payable on approval No major deviation involving substantial extra outlay will be made without the prior approval of the Superintending Engineer.

7. Work progress register will be maintained by MIDC on site &/or in the Divisional office &/or Sub division under it. The contractor will sign all instruction issued by Executive Engineer or his representative/ his superior officers & comply with them. For this purpose the contractor or his authorised representative shall attend the site or said office daily for receiving instructions.

8. i) Metered water supply will be made available to the contractor from MIDC pipeline if available & water consumed will be charged at the prevailing industrial rate or nearby industrial area or in that area subject to change as decided by MIDC from time to time. The connection, metering etc. shall be taken by the contractor at his cost. In case of water supply to CETP and CHWTSDF will be provided at domestic rate applicable in that area during construction and operation period.

ii) For taking water supply connection separate agreement for water supply connection is necessary to be executed with MIDC and the terms and conditions of this agreement will prevail until water supply connection is in force.

9. It will be the contractor's responsibility to inspect & investigate the work site thoroughly so as to arrive at the rates quoted in the tender .In this regard necessary information available with MIDC will be given to him without any guarantee about its full proofness.

10. Contractor has to clear road land width/plot which includes cutting trees less than 30 cm. In girth with permission from concerned competent authority, cleaning brush wood, loose stones, vegetation, bushes, stumps & mole hills without any extra cost. The contractor shall provide diversion to the affected existing road, if required as directed by Engineer-in-charge at his own cost.

11. The contractor shall engage an authorised all time person on this work capable of engaging & guiding the work & understanding all specifications. He will take orders as will be issued by the Executive Engineer, or his authorised representative & shall be responsible for carrying them out. The person shall not be changed without prior intimation to the Executive Engineer & his representative on the work site.

12. The contractor shall take all precautions during the execution of work so as not to cause any damage to any property/ adjacent properties & shall be responsible to make good any damaged property as directed by the Executive Engineer till his satisfaction.

13. All installations such as electric cable, water pipeline, telephone lines, OFC, Sewer main manhole, natural drainage, gas/ fuel pipelines,

CD works, storm water drains etc coming in the way shall be looked after carefully. The protections and support against any damages, which otherwise will have to be made good by contractor at his cost. In case any permission is required from Concerned authority for handling these lines, the contractor will co-ordinate with such authority. All safety precautions shall be taken from traffic flow point of view.

14. Contractor should specifically indicate the metal & murum quarries from which he proposes to bring the material for completing the work.

15. Where the proper measurement of work, it is necessary to have an initial set of levels taken, the same as recorded in the authorised field book by the Executive Engineer or his authorized representative & will be signed by the contractor who will be entitled to have a true copy of the same on demand. Any failure on the part of the contractor to get such levels before starting the work will render him liable to accept the decision of the Executive Engineer as to the basis of taking measurements. Likewise the contractor will not cover any work which will render its subsequent measurement difficult or impossible, without first getting the same jointly measured by himself & the authorised representative of the Executive Engineer. The record of such measurements on to Department's side will be signed by the contractor & he will be entitled to have a true copy of the same on demand.

16. All work before being finally taken over by MIDC will be entire liability of the contractor for guarding maintaining & making good any damage of any magnitude. Interim payments made for such work will not alter this position. The handing over by the contractor & taking over by the Executive Engineer, or his authorised representative, will be always in writing, of which copies will go to the Executive Engineer, his authorised representative & the contractor. It is, however understood that before taking over such work, MIDC will not put it to its regular use distinct from casual/incidental one.

17. Orders issued by the Superintending Engineer of MIDC by whatever designation he may be known from time to time regarding the conduct of the work shall be binding on the contractor.

18. The tendered rates for supply of materials are for delivery of materials properly stacked in regular heaps or otherwise as directed for facility of measurement before use. In case of road materials, the same shall be stacked by the road side as directed. Materials shall not be stacked at places where they are likely to be damaged or lost. The contractor shall have no claim for any loss on this account. If such material has been paid for & is subsequently lost before use in the work, the contractor shall make good the loss.

19. No material shall be removed from the road land, except for excavation of gutters, or any other adjoining land unless permitted in writing subject to such conditions as the Executive Engineer may specify. The contractor is liable for the damages/compensation arising out of disregard of this condition.

20. The orders of collection & utilisation of materials shall be decided by Exe .Engineer/his authorised representative so as to ensure orderly work.

21. For the items so indicated, no materials shall be used without first having been measured by regular stacks. The whole of the quantity of a particular material required for a sizable section of the work shall be first collected before it can be measured & used. The same material shall either be collected separately or the collection shall not be started at all unless the material collected in the section under reference has been all used.

22. The contractor will have to construct a shed for storing controlled & valuable materials issued to him under Schedule 'A' of the agreement, at work site, having double locking arrangement. The material shall be taken for use in the presence of the departmental person. No material will be allowed to be removed from site of work.

23. Under no circumstances shall any contractor be entitled to claim enhanced rates for any items in this contract.

24. The contractor shall study all the plans, specifications & other terms & conditions of the contract carefully before tendering & shall also inspect the site & get self acquainted with nature of work & local conditions regarding the availability of labour, material, source & sufficiency of water supply required for the execution of the work & site conditions, rivers, nallas, topography etc existing roads, means of communication & access to site of work etc.

25. The contractor shall submit, within one month from the date of work order of MIDC, designs & drawings to the Exe .Engineer. After getting the letter of approval of design from Executive Engineer, the contractor shall at his own expense clear the site & take up the provisional & final setting & carryout the work under the supervision of his responsible representative & shall provide necessary material, labour, tools, instruments etc required for the same. The line & setting out shall be done most accurately & it shall be the full responsibility of the contractor for correctness of the position, level, dimensions, alignment etc of all parts of the work & if any time during the execution, any error appears/arises, the same shall be rectified by the contractor at his own cost. The checking of any setting out/line/level by the Engineer shall not in any way absolve the contractor of his own responsibility for the correctness thereof. The contractor shall protect & preserve all benchmark, site rails etc used for setting out of the work.

26. The contractor shall, if necessary, construct temporary roads & maintain these in proper condition till the completion of work at his own cost. If necessary, he shall also at his own cost, make necessary arrangement for acquisition of land for construction of such temporary road or for any other purpose in connection with the execution of work.

- 27.** The contractor shall comply with all proper & legal orders & direction of the local/public authority/ municipality & abide by their rules & regulations & pay all such fees & charges which he may be liable to. No reimbursement of such fees & charges will be made by MIDC.
- 28.** The contractor shall inform the Engineer-in-charge in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without regarding the further progress of work. The work shall not be considered to have been completed in accordance with terms of contract until the Engineer-in-charge shall have certified in writing to that effect
- 29.** If contractor desires to use any design/material/process covered by letter "Patent" or "Copy Right", it shall be responsibility of the contractor to observe all legal formalities for the use of the same
- 30.** In the event of there being reasonable doubt as to the quality of workmanship & material used in the construction, the Engineer-in-charge may order to the contractor to satisfy MIDC by carrying out suitable test of structure or part thereof. In the manner as prescribed in Clause on Page 53 of the Indian Std. Code for practice for PCC & RCC for general building construction & as per Std .Sp cf. of Dept. As may be approved by the Engineer-in- charge regarding the sufficiency wherever necessary at his own cost to the entire satisfaction of the Executive Engineer
- 31.** All the laboratory equipment required for the field test of materials, concrete, steel shall be arranged by contractor at his own cost
- 32.** The contractor shall take all precautions, due care against damage by floods, rains, storms ,out break of fire & accidents. No compensation will be allowed to the contractor for his plants/materials lost, damaged by way of the above cause or other causes which is in charge of the contractor.
- 33. Safety of materials & recoveries:** The contractor shall use the materials supplied to him by the department at free of cost or as mentioned in the Schedule 'A' very properly & economically. The contractor shall be responsible for proper handling & safe custody of the materials so issued to him. The materials remaining unused after the completion of the work shall be returned by the contractor to the Department. The department will accept only such materials as are in perfect conditions. If any of the materials issued to the contractor free of cost there of department will accept only such materials as are in perfect conditions. If any of the materials issued to the contractor free of cost there of shall be recovered from the contractor at double the rate at which it was purchased by the department, or the market rate prevailing at the time whichever is higher. The contractor shall maintain a day to day account of materials issued to him by the department & shall produce it to the Engineer-in-charge when demanded.
- 34. Road Crossings:** Any work at the road crossing shall be restricted only to half the width of the road, leaving the other half open for traffic. Second half is taken up only after the first half is completed & made upto the original surface, serviceable with the permission of Engineer-in-charge. All roads shall be reinstated by the contractor without any extra cost after proper consolidation, watering, cutting etc. Guarding barricading shall be provided by the contractor for 24 hrs. a day. The work of road crossing shall be planned well in advance & shall be carried out within the minimum possible time thereby causing least disturbance to traffic. No road shall remain excavated for more than 24 hrs. Where the roads are very narrow such that traffic cannot be allowed in the second half when the work in first half is in progress, the contractor shall provide necessary diversions & maintain the same at his cost till such time as the work is in progress & the road is opened to traffic.
- 35. Interpretation:** Singular & Plural 'Work' imparting the singular number shall include the plural number also & vice versa where the context requires.
- 36. Removal of Contractor's Employees:** The contractor shall employ in & about the execution of the works only such persons as are careful, skilled, competent & experienced in their several trades & shall, on the direction of the Engineer-in-charge forthwith cease to employ in & about the execution of the works. Any person who in the opinion of the MIDC or Engineer-in-charge, misconduct himself, or is incompetent or negligent in the proper performance of his duties or whose continued employment is undesirable for any reason, such persons shall not be again employed upon the works without the written permission of the MIDC/Engineer-in-charge
- 37. Access to site of work:** The provisions of clauses & conditions of this contract shall also apply to all premises, workshops, factories, plants, quarries & all other places from where materials, manufactured articles & machineries are being obtained or stored for the works. The MIDC/Engineer-in-charge or their representative & other subordinates shall be furnished with such information, assistance & facility by the contractor as is required to make a complete & detailed investigation/inspection/supervision of the said goods.
- 38. Inspection of Works & Materials:** All materials & each part of details of the work shall be subject at all times, to inspection by the MIDC/Engineer-in-charge or their representative or other authorized subordinates who shall be furnished with reasonable facilities & assistance by the contractor for ascertaining whether or not the work as performed or the materials used are in accordance with the requirements & intent of the plans & specifications.
The contractor shall also inform the Engineer-in-charge in writing, when any portion is ready for inspection giving him at least 24 hrs. advance intimation to enable him to inspect the same without regarding further progress of the work. Any work done or materials used without supervision or inspection by the MIDC/Engineer-in-charge or is representative, is liable to be ordered to be removed & replaced at the contractor's expense.
- 39. Testing of Materials & Works:** All materials before being incorporated in the work shall be inspected. After satisfactory necessary tests

as per prevalent standards shall be approved by the Engineer-in-charge. The testing shall be done in the Government approved lab or any laboratory approved by MIDC & the testing charges shall be borne by the contractor himself only. Any work in which such materials are used prior to inspection & when necessary, testing & without approval or written permission of the Engineer-in-charge shall be considered as unauthorized, defective & not acceptable. The testing of materials & works where necessary shall be carried out in accordance with the latest standards Methods of Bureau of Indian Standards Institution current on the date fixed for opening of the tender. If no such standard exists for a particular test, the standard method as laid down by the British Standard Institution or by American Association of State Highway Officials or the American Society or other suitable organization for testing of materials, will be used at the discretion of the Engineer-in-charge. He may also adopt any other suitable method at his discretion. The contractor shall furnish such facilities instruments, machinery, equipment, labour and material as the Engineer-in-charge may require for collecting & forwarding sample or for ascertaining the quantity, quantity or weight of materials used and if so directed shall not make use of or incorporate in the work of any materials represented by the said sample until the required test are made and the materials accepted. The contractor shall establish a laboratory at site where routine testing of materials of concrete, asphalt etc can be done to the requirements as per work at his cost. The daily test report register should be maintained at site/ lab and shall be produced as and when required.

The cost of collection of sample including transportations as well as of the testing shall be borne by the contractor for the followings.

- i) The collection & supply of the samples & carrying out of such tests is provided for or clearly intended in the contract, will be carried out in the laboratories approved by the Engineer-in-charge.
- ii) The collection & supply of the samples & the carrying out of such tests if not provided for or clearly intended in the contract but on testing, the material is found defective & has to be rejected. The defective material should be removed from site within 24 hours & report of the same should be given to Engineer-in-charge.

40. Unauthorized & Defective Works: No work shall be done without lines, levels, grades, lengths & other dimensions having been given or approved by the Engineer-in-charge or when authorized by him or by his representative or other authorized subordinates. Any work done by the contractor prior to the approval of the contract, work done contrary to or regardless of the instructions of the Engineer-in-charge, work done beyond the lines shown on the plans or as given, or any extra work done without authority will be considered as unauthorized & will not be paid for under the provisions of this contract. Work so done shall be ordered to be removed or replaced at the contractor's expense. All works & materials which do not conform to the requirements of the contract whether on account of poor workmanship, defective materials, unsuitable equipments & plans, carelessness or any other causes, shall be considered as defective. The Engineer-in-charge shall have the power to order removal or replacement of all unauthorized/defective materials/works which in his opinion should be removed or replaced all defects, be removed, replaced or corrected as may be directed by the Engineer-in-charge.

41. Night Work: Subject to any provisions to the contrary contained in the contract, no work shall be carried out between the hours of sun set & sunrise without the written permission of the Engineer-in-charge except when the work is unavoidable or absolutely necessary ,for saving life or property or for the safety of the work, in which case, the contractor shall immediately inform the Engineer-in-charge or his representative, provided always that the provision of this clause shall not be applicable in the case of any work which it is customary to carry out by double or rotary shifts in which case sufficient advance notice shall be given of the intention of work at night to the Engineer-in-charge. After making all requisite arrangements & management of areas, materials & equipments ,required under any emergency etc. Overtime to supervisory staff of the MIDC, in such cases shall have to be however borne by the contractor.

The contractor shall also carry on work between sunset & sunrise if so required by the Engineer-in-charge, subject to obtaining approval in writing, for expediting the progress on the works or for any other reasons of technical safety. Whenever any work is required to be carried out at night in the interest of structural safety or any other reason with express approval of the Engineer-in-charge or his representative authorized to supervise, adequate lighting & other arrangement shall be made in advance by the contract or for proper execution & supervision of the such work. The contractor shall not be however entitled to any extra payments for night work. Before such work to be carried, the contractor should also inform to local Police Station in writing.

42. Explosive and inflammable Materials: The MIDC does not anticipate use of any explosive or any inflammable material on this work, however, in the event, explosive or inflammable materials are used for the execution of the works, the contractor shall at his own expense, obtain such license or license as may be required for storing and using explosives and or inflammable materials and locate, construct and maintain magazines if such area is required for storage in accordance with relevant Government rules in force. Such magazine shall clearly marked dangerous – explosive in the original language and devnagri and shall be in the care of competent watchman all the time. All these shall be done under intimation and after getting concurrence Engineer-in-charge. The contractor shall exercise utmost care while using explosives and or inflammable material not to endanger life or property and shall be

The contractor shall exercise utmost care while using explosives and or inflammable material not to endanger life or property and shall be solely responsible for any and all damages resulting from their storage and use, and shall indemnify absolutely MIDC and its office and employees against any claim and liability arising out of any accident or any violation and or any law, rules, orders etc.

43. Care, Maintenance and repair of works:- a) From the commencement until the time, the works are completed and finally accepted and

handed over to the MIDC, the contractor shall take full responsibility for care and maintenance thereof including care of all temporary works to the satisfaction of the Engineer-in-charge and in case any damage the Deterioration loss or injury shall happen to the works or to any part there of or to any temporary work, from storms, fire, rains, accidents or any case whatsoever other than earthquake, volcanic eruption or other convulsion of nature or act of God, War, Invasion, act of foreign enemies, hostilities (whether war be declared or not) Civil war, rebellion, revolution, insurrection or military or insured power, shall at his own cost maintain, repair and make good the same so that till the time of final acceptance, the works shall be in good order and condition and in conformity in every respects with the requirements of the contract and the instructions of the Engineer-in charge.

b) If the contractor fails to comply with the requirements mentioned in Sub Clause 1 above, the Engineer-in-charge will immediately ask him to comply with the same within prescribed period .In the event of contractor failing to comply with these instructions, the Engineer-in charge will immediately proceed to take care of the same viz. maintain or repair as required at the cost of the contractor. The clause regarding defect liability period is given separately.

44. Compliance of Laws: The contractor shall keep himself fully informed of all acts, laws of the Central & state Governments, all local bye laws, ordinances, rules & regulations & all orders & decrees of bodies/tribunals having any jurisdiction/authority which in any manner effect those engaged or employed on the work or which in way effect the conduct of the works. He shall at all time observe & comply with all such laws, ordinances, rules, regulations, orders & decrees & shall give all notices & pay out of his own money, say fees or charges to which he may be liable. He shall protect & indemnify the MIDC & its officers & employees against any claim or liability arising from or based on the violation of any such laws, ordinances, regulations orders, or decrees whether by himself or by his employees

45. Treasure Trove: In the event of the discovery by the contractor or his employees during the progress of the works of any treasure, coins, antiquities, fossils, minerals or other articles or things of value or interest, whether geological, archeological or any other such treasure or other things shall be deemed to be the absolute property of MIDC. The contractor shall take all reasonable precautions to prevent his workmen or another persons from removing such things as above & shall immediately upon discovery thereof & before removal, acquaint the Engineer-in-charge of such discovery & carry out his orders as to the disposal of the same which will be at the contractors expense.

46. Patented Devices, Materials & Processes: Whenever the contractor desires to use any design, device, drawing information's, materials, or process covered by a patent of copyright, he shall procure the rights for such use by suitable legal agreement with the patentee or owner at his own expenses & a copy of the agreement shall be filed with the Engineer-in-charge.

The contractor shall indemnify the MIDC from & against all claims, proceedings, damages, costs & expenses which may be brought or made against the MIDC or to which they may be put by reason of the contract infringing or being held to have infringed any patent rights or copyright in relation to any design, device drawing, materials or process at anytime during the prosecution or after the completion of the work & in the event of any injunction being obtained against the use of the same, the contractor shall replace the same with other materials design, drawing, device, process etc. which do not infringe any such patent right or copy right, to the infringe any such patent right or copy right, to the satisfaction of the Engineer-in-charge.

47. Trespass: The contractor shall at all times be responsible for any damages due to trespass committed by his agents & work people in carrying out the work, unless authorized by the Engineer-in-charge in writing in which case ,all repair work shall be done by the contractor at his own cost to restore the original condition.

48. Indemnity: The MIDC shall on behalf of the contractor shall indemnify their officers, employees etc against all actions, suits, claims & demands of any character brought in respect of any matter or thing done or omitted to be done by the contractor in the excavation of or in connection with the works of this contract & against any loss or damage to MIDC his workman/labourers in consequence, for any action or suit being brought against the contractor for anything done or omitted to be done in the execution of the works of the contract or compensation to be paid by contractor to his workman/labourers in consequence of accidents causing damage or loss of life of his workman/labourers etc. All such payments made by the MIDC shall be recovered from the contractor from his dues outstanding, or remains to be paid or that which becomes payable.

The MIDC shall not be liable to the contractor for damages or losses or delays resulting, from work by third parties or by injunction or other restraining orders obtained by third parties.

49. Police Protection: If police is asked for by the contractor for special protection of his camp of work, the MIDC may arrange for such protection so far as possible with the authorities concerned and full cost of such protection shall be debited to the contractor and recover from his bills without any extra claim

50. Permits, Licenses, Priorities, Certificates etc: The contractor shall make his own arrangements at his own cost, if required.

- a. To obtain permits, licenses, quota certificates, foreign exchange etc for any materials or items of work etc if required by him.
- b. To obtain rail & other priorities for transport of his plant, tools equipments, stores, machinery materials, labour staff etc.
- c. To arrange with civil supply authorities for release of controlled goods if so, for his labour & staff.

The MIDC will not undertake to arrange for these but will not undertake to arrange for these but will render reasonable help within its competence without accepting any responsibility for delay if any.

51. Field Book: Whichever payments is based on levels, all sets of levels such as initial, intermediate & final shall be taken & recorded by the Engineer-in-charge or his representative in the presence of Contractor or his authorised representative. Contractor shall attend the site for checking these levels & signing in token of acceptance thereof. If Contractor fails to attend the site on the day or for any reason fails to sign the documents in which these levels are recorded, they shall be final & binding on the contractor

52. Levels shown on the drawings: Whichever payment is based on the levels, all sets of levels such as initial, intermediate & final shall be taken & recorded by the Engineer-in-charge or his representative in the presence of contractor or his authorised representative. Advance intimation of day & time when the levels would be taken will be given by MIDC to the contractor/ his authorised representative .Contractor shall attend the site for checking these levels & signing in token of acceptance thereof .If contractor fails to attend the site on the day or for any reason fails to sign the documents in which these levels are recorded, they shall be final & binding on the contractor

53. Sign Boards: Necessary sign boards, danger flags & lamps during night time to mark the closure of the road shall be provided by the contractor at his cost. A chowkidar is essential to be appointed by the contractor to keep light & watch the materials lying on site ,intact through the night. Contractor is responsible for the accidents if above care in not taken properly. He will have to pay compensation for the same.

ADDITIONAL CONTRACT CONDITIONS REGARDING STEEL & CEMENT MATERIAL SUPPLY OF CEMENT

1. Tenderer shall note that MIDC will not supply cement. They should make their own arrangement for procurement of cement required for the work from open market. The cement that will be procured during execution of work as per standard rate of consumption shall be governed by the following conditions:

1a. The total quantity supplied for work includes all taxes, duties including GST, loading/unloading charges ,transportation from market to site of work or any other local taxes as applicable from time to time.

1b. The entire quantity of cement shall be Portland cement of slow setting quality & shall be in accordance with IS:8112- 1989 & as per Indian Standard Specifications revised from time to time with not less than 43 grade. The brand of cement shall be approved by the Executive Engineer & shall be tested before it is used on work at contractor's cost & certificate shall be produced when demanded by the department.

1c. The procurement of cement shall be from the Cement manufacturing companies having computerized plant with installed capacity not less than one million MT per annum or shall be of approved brands available in market such as Ambuja, Birla, Ultratech, Narmada, Rajshree, Vasavdatta or equivalent 43 grade confirming to IS:8112-1989.

1d. All tests shall be given for cement brought on site for construction work as per IS:8112-1989. One sample from every lot of 1000 bags of cement brought on site & as & when directed by Engineer-in-charge shall be tested from Government recognized laboratories at contractor's cost. No extra payment will be made for the testing of cement.

1e. The quantity brought on site shall be from fresh stock only. No damaged or partly damaged cement will be accepted under any circumstances.

1f. MIDC will not take any responsibility of cement damaged at site and no claims whatsoever will be entertained.

1g. The ordinary portland cement shall conform to IS:8112-1989 & its subsequent amendments, if any.

1h. The cement packed in HDPE bags, each containing 50 Kg of cement shall only be used.

1i. The contractor should produce manufacturer's test certificate. Additional tests shall be carried out from Govt. approved laboratories.

1j. Cement brought by the contractor will also be got tested by MIDC from Govt/Semi-Govt laboratory, before it is used on work & if it is found to be according to IS:8112-1989 then only it will be allowed to be used, otherwise it will be rejected. The results of tests so obtained shall be final & binding on the contractor over & above the test certificate of manufacturer.

1k. For the purpose of actual quantity brought by contractor at site of work/store, the delivery challan of supplier shall be handed over to the Engineer-in-charge & the copies of bill for the same shall be handed over within a week.

2. Supply of Steel: 2. Tenderer shall note that MIDC will not supply or issue any MS/TOR/TMT/CRS steel as per requirement of work. They should make their own arrangement for the entire quantity required for work. The steel that will be procured by the contractor shall be governed by the following conditions:

2a. Steel required for RCC items shall be brought from registered steel plant or primary or secondary producers having sufficient capacity of manufacturing or rerolling of steel from TATA, Hinduja, Shyam-TMT. SAIL, Sanghavi Steel, Ramkrishna Ispat or equivalent to relevant latest IS.

2b. The total quantity to be supplied for work shall include all taxes ,duties including GST, loading/unloading charges, transportation from market to site of work, weighment charges at site etc. or any other levies as applicable from time to time during the period of contract.

2c. MS/TOR steel reinforcement for RCC work shall conform to IS: 432-1992, IS:226 & IS:1786 latest versions respectively & shall be of tested quality. It shall also comply with the relevant part of IS: 456-2000.

2d. All the steel reinforcement shall be clean & free from dirt, paint, grease, mill scale or loose or thick rust at the time of supply.

2e. The contractor shall produce a test certificate of the manufacturer at the time of supply at store & before use in work.

2f. The steel reinforcement shall be tested for each lot category wise or as & when directed according to IS:1521, IS:1608,IS:226, IS:1559-2013 or as per revised IS codes in force from time to time, from Government recognized test laboratories & test certificates shall be submitted before use. No extra payment will be made for testing of steel.

2g. The steel brought by the contractor shall be weighed in the presence of Engineer-in-charge of the work or his authorized representative & challans shall be handed over to the Engineer- in-charge in token of bringing the steel at site. He will also keep at site of work a register of steel brought & used, for periodical checking of Engineer-in-charge of work. For the purpose of actual quantity brought by the contractor at site of work/store both the challan one from the weighment shop & other challan of supplier shall be handed over to the Engineer-in-charge & quantity whichever is less will be considered as quantity brought by the contractor & copies of bills shall be submitted within a week so as to consider the same in escalation bills.

2h. MIDC will not take any responsibility of steel reinforcement brought on site & no claims whatsoever will be entertained.

ADDITIONAL CLAUSE FOR WORKS COSTING MORE THAN Rs.50 LAKHS FOR SITE OFFICE

Contractor should construct a site office of area specified elsewhere in the tender at the work site for use of MIDC Engineers & other staff with 1 table, 6 chairs, 1 steel cupboard, 1 fan etc without any claim for reimbursement. The possession of the office would be in charge of Deputy Engineer. After the completion of work, contractor would be requested to dismantle the site office constructed for the temporary use & take back all the materials in the office such as tables, chairs, cupboard, fans etc. If in case no such office is constructed by the contractor within a period of one month from the date of work order, an amount of Rs.2 Lakhs shall be deducted from 1st RA Bill, which shall be kept in deposit till the office is construct.

GENERAL REQUIREMENTS FOR BITUMINOUS PAVEMENT LAYERS

501.1 General

Bituminous pavement course shall be made using the materials described in the Specifications. The use of machinery and equipment mentioned in various Clauses of these Specifications is mandatory. Details of the machinery and equipment are available in the Manual for Construction and Supervision of Bituminous Works. The equipment mandatory for any particular project shall be in accordance with the Contract Specifications for that project.501.2 Material 501.2.1 Binder The binder shall be an appropriate type of bituminous material complying with the relevant Indian Standard, as defined in the appropriate Clauses of these Specifications, or as otherwise specified herein. The choice of binder shall be stipulated in the Contract or by the Engineer. Where viscosity grades of bitumen are specified, they are referred to by a designation in accordance with IS:73. Where modified bitumen is specified, it shall conform to the requirements of IRC:15462; and the following provision of this Specification shall apply.i) Modified bitumen from refinery sources or blended at approved central plant or at site using appropriate industrial process and plant with high shear mill, and testing facilities to achieve stable and homogenous mix shall be used. The use of high shear mixer or any other device capable of producing a homogeneous blend is essential when the modified is in powder form.ii) Transportation tanks and storage tanks shall be insulated and equipped with effective heating system and circulation/agitating device to maintain the specified temperature, homogeneity and viscosity of the bitumen during transit and storage.

iii) Separation, difference in softening point (R&B), shall not be more than 3°C for any type of specified modified bitumen when tested as per Annex B of IS:15462.

Selection criteria for viscosity grade bitumen, based on highest and lowest daily mean temperatures at a particular site, are given in Table 500-1.

Selection criteria for modified bitumen shall be in accordance with IRC:SP:53.

Table 500-1: Selection Criteria for Viscosity-Graded (VG) Paving Bitumens

Based on Climatic Conditions

Lowest Daily Mean Air Temperature, °C	Highest Daily Mean Air Temperature, °C		
	Less than 20°C	20°C to 30°C	More than 30°C
More than -10°C	VG-10	VG-20	VG-30
-10°C or lower	VG-10	VG-10	VG-20

Both the highest daily mean air temperature and the lowest daily mean air temperatures mentioned in Tables 500-5 and 500-6 can be obtained for the weather station nearest to the project site from the Indian Meteorological Organization (IMO). This daily mean high temperature on a specific day is the same as daily “normal” high temperature for that day as usually reported in some newspapers. The highest of the 365 daily mean high air temperatures (which usually occurs on some day in May or June) is used in Tables 500-5 and 500-6. Likewise, the lowest daily mean air temperature (which usually occurs on some day in January) can also be obtained from the IMO. Since these are mean temperatures based on the average of 30-40 years data, these temperatures are significantly lowest than the absolute maximum temperatures, which may have occurred in a specific year.

501.2.2 Coarse Aggregates

The coarse aggregates shall consist of crushed rock, crushed gravel or other hard material retained on the 2.36 mm sieve. They shall be

clean, hard, durable, or cubical shape, free from dust and soft or friable matter, organic or other deleterious matter. Where the Contractor’s selected source of aggregates has poor affinity for bitumen, the Contractor shall demonstrate through test results that with the use of anti-stripping agents, the stripping value is improved to satisfy the specification requirements. The Engineer may approve such a source and, as a condition for the approval of that source, the bitumen shall be treated with approved anti-stripping agents, as per the manufacturer’s recommendations, at the cost of the Contractor.

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, except that in the case of bituminous concrete the requirement in this regard shall be 95 percent.

The aggregates shall satisfy the physical requirements set forth in the individual relevant clause for the material.

501.2.3 Fine Aggregates

Fine aggregates shall consist of crushed or naturally occurring material, or a combination of the two, passing 2.36 mm sieve and retained on the 75 micron sieve. They shall be clean, hard, durable, dry and free from dust, and soft or friable matter, organic or other deleterious matter. Natural sand shall not be allowed in binder and wearing course. However, natural sand upto 50 percent of the fine aggregates may be allowed in base course. Fine aggregates 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 0.425 mm shall not exceed 4 when tested in accordance with IS:2720 (Part 5). The fine aggregates shall satisfy the physical requirements set forth in the individual relevant-clause for the material in question.

501.2.4 Source of Material

The sources of materials proposed to be used by the Contractor shall be tested to the satisfaction of the Engineer who shall give the necessary approval. The Engineer may from time to time withdraw approval of a specific source, or attach conditions to the existing approval. Any change in aggregate source for bituminous mixes shall require a new mix design, and laying trials, where the mix is based on a job mix design. Stockpiles from different sources approved or otherwise, shall be kept separate, such that there is no contamination between one material and another. Each source submitted for approval shall contain material sufficient for at least 5 days work.

501.3 Mixing

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 500-2 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. The essential features of the hot mix plants are given in Annex A of IRC: 27.

Table 500-2: 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-40	160-170	160-175	160-170	150 Min	100 Min
VG-30	150-165	150-170	150-165	140 Min	90 Min

VG-20	145-165	145-170	145-165	135 Min	85 Min
VG-10	140-160	140-165	140-160	130 Min	80 Min

*Rolling must be completed before the mat cools to these minimum temperatures.

If a continuous type mixing plant is used, the Contractor must demonstrate by laboratory analysis that the cold feed combined grading is within the grading limits specified for that bituminous bound material. In the case of a designed job mix, the bitumen and filler content shall be derived using this combined grading.

501.4 Transporting

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.

501.5 Laying

501.5.1 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 and is less than 15°C for mixes with modified bitumen;
- v) When the wind speed at any temperature exceeds the 40 Km per hour at 2 m height.

501.5.2 Cleaning of Surface

The surface on which the bituminous work is to be laid shall be cleaned of all loose and extraneous matter by means of a mechanical broom and air jet. The equipment for applying a high pressure air jet from a compressor to remove dust or loose matter shall be available full time at the site.

501.5.3 Spreading

Prior to spreading the mix, the base shall be prepared by carrying out the required operations as per Clause 501.8 depending upon the site conditions. Except in areas where paver cannot get access, bituminous materials shall be spread, levelled and temped by an approved self-propelled paving machine equipped with an electronic sensing device. 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. In areas with restricted space (such as confined space, foot ways, of irregular shape and varying thickness, approaches to expansion joints etc) where paver cannot be used, the material shall be spread, raked and levelled with suitable hand tools by

trained staff.

The minimum thickness of material laid in each paver pass shall be in accordance with the minimum values given in the relevant parts of these Specifications. When laying binder course or wearing course approaching an expansion joint of a structure, machine laying shall stop 300 mm short of the joint. The remainder of the pavement up to the joint, and the corresponding areas beyond it, shall be laid by hand, and the joint or joint cavity shall be kept clear of surfacing material.

Bituminous material, with a temperature greater than 145°C, shall not be laid or deposited on bridge deck water-proofing systems, unless precautions against heat damage have been approved by the Engineer.

501.5.4 Cleanliness and Overlaying

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 Clause 501.8.

Binder course material shall be covered by either the wearing course or surface treatment, whichever is specified in the Contract.

501.6 Compaction

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 centre longitudinally except that on super-elevated and unidirectionally cambered portions, it shall progress from the lower to the upper edge parallel to the centre 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. The contractor shall demonstrate the efficiency of the equipment proposed to be used by carrying compaction trials. The procedure for site trials shall be submitted to the Engineer for approval. The finish rolling shall be done with 6 to 8 tonne smooth wheel tandem rollers. Rolling shall continue until the specified compaction is achieved.

Where compaction is to be determined by density of cores, the requirements to prove the performance of rollers shall apply in order to demonstrate that the specified density can be achieved. In such cases the Contractor shall specify the plant, and the method by which he intends to achieve the specified level of compaction and finish at temperatures above the minimum specified rolling temperatures. Laying trials shall then demonstrate the acceptability of the plant and method used.

Bituminous materials shall be roller in a longitudinal direction, with the driven rolls nearest the paver. The roller shall first compact material adjacent to joints and then work from the lower to the upper side of the layer, overlapping on successive passes by at least one-third of the width of the rear roll or, in the case of a pneumatic-tyred roller, at least the nominal width of 300 mm.

In portions with super-elevated and unidirectional camber, after the edge has been rolled the roller shall progress from the lower to the upper edge.

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.

501.7 Joints

501.7.1 Where joints are made, the material shall be fully compacted and the joint made flush in one of the following ways:

a) All joints shall be cut vertical to the full thickness of the previously laid mix. All loosened material shall be discarded and the vertical face coated with a suitable viscosity grade hot bitumen, or cold applied emulsified bitumen. While spreading the material along the joint the material spread shall overlap 25 mm to 50 mm on the previously laid mix beyond the vertical face of the joint. The thickness of the loose overlap material should be approximately a quarter more than the final compacted thickness. The overlapped mix shall be dragged back to the hot lane so that the roller can press the small excess into the hot side of the joint to obtain a high joint density.

b) By using two or more pavers operating in echelon, where this is practicable and in sufficient proximity for adjacent widths to be fully compacted by continuous rolling.

501.7.2 All longitudinal joints shall be offset at least 300 mm from parallel joints in the layer beneath or as directed, and in a layout approved by the Engineer. Joints in the wearing course shall coincide with either the lane edge or the lane marking, whichever is appropriate. Longitudinal joints shall not be situated in wheel track zones.

501.7.3 For transverse joints method a) above shall apply, Transverse joints in the successive and adjoining layers shall have a minimum offset of 2 m.

501.8 Preparation of Surface

501.8.1 Scope

This work shall consist of preparing an existing granular or black-topped surface for laying bituminous course. The work shall be performed on such widths and lengths as shown on the drawings or as instructed by the Engineer. The existing surface shall be firm and clean, and treated with Prime or Tack coat as specified in the Contract.

501.8.2. Materials

501.8.2.2 For patching Potholes and Sealing Cracks

Where the existing surface to be overlaid is bituminous, material required for patching and sealing cracks shall be in accordance with Clause 3004.2 and 3004.3 of MORTH book of specifications-2013 or as directed by the Engineer.

501.8.2.3 For Profile Corrective Course

The type of material for use as profile corrective course shall be as shown on the drawings or as directed by the Engineer. Where it is to be laid as part of the overlay/strengthening course, the profile corrective course material shall be of the same specification as that of the overlay/strengthening course. However, if provided as a separate layer, it shall be of the specification and details given in the Contract.

501.8.3. Construction Operations

501.8.3.1 Preparing Existing Granular Surface

Where the existing surface is granular, all loose materials shall be removed, and the surface lightly watered where the profile corrective course to be provided as a separate layer is also granular. Where the profile corrective course of bituminous material is to be laid over the existing granular surface, the latter shall, after removal of all loose material, be primed in accordance with Clause 502 and a tack coat applied in accordance with Clause 503.

The surface of all granular layers on which bituminous works are to be placed, shall be free from dust. All such layers must be capable of being swept, after the removal of any non-integral loose material, by means of a mechanical broom, without shedding significant quantities of material and dust removed by air jet, washing, or other means approved by the Engineer.

After cleaning, the surface shall be correct to line and level within the tolerances specified for base course.

501.8.3.2 Scarifying Existing Bituminous Surface

Where specified or shown on the drawings, the existing bituminous layer in the specified width shall be removed with care and without causing undue disturbance to the underlying layer, by a suitable method approved by the Engineer. After removal of all loose and disintegrated material, the underlying layers which might have been disturbed shall be suitably reworked supplementing the base material as necessary with suitable fresh stone aggregates and compacted to line and level. The compacted finished surface shall be primed in accordance with Clause 502. Reusable material shall be stacked as directed by the Engineer with all leads and lifts.

501.8.3.3 Patching of Potholes and Sealing of Cracks

Where the existing surface to be overlaid is bituminous, any existing potholes and cracks shall be repaired and sealed in accordance with Clauses 3004.2 and 3004.3 of MORTH Specifications 2013 or as directed by the Engineer.

501.8.3.4 Profile Corrective Course

a) Application of Profile Corrective Course

i) A profile corrective course for correcting the existing pavement profile shall be laid to varying thickness as shown on the Drawings.

ii) Any high spots in the existing black-topped surface shall be removed by a milling machine or other approved method, and all loose material shall be removed to the satisfaction of the Engineer.

iii) Where the maximum thickness of profile corrective course will be not more than 40 mm, the profile corrective course shall be constructed as an integral part of the overlay course. In other cases, the profile corrective course shall be constructed as a separate layer, adopting such construction procedure and using such equipment as approved by the Engineer, to lay the specified type of material, to thickness and tolerance as specified for the course to be provided.

iv) The profile corrective course shall be laid to tolerances and densities as specified for wearing course if it is laid integral with the wearing course. The profile corrective course shall be laid to tolerances and densities as specified for base course, if it is to be covered with a wearing course layer.

b) Laying on Granular Base : After preparing the granular surface in accordance with Clauses 501.8.3.1 and 501.8.3.2, the profile corrective course shall be laid using material as described in Clauses 501.8.2.3 and 501.8.3.4 (a), or as otherwise described in the Contract, and compacted to the requirements of the particular Specification.

c) Laying on Existing Bituminous Surface : The existing bituminous surface shall be prepared in accordance with Clause 502.8.3.3, and after applying a tack coat conforming to Clause 503, the bituminous profile corrective course shall be laid using material as described in Clauses 501.8.2.3 and 501.8.3.4 (a) and compacted to the requirements of the Specification.

d) Correction of Local Depressions, Camber and Super-Elevation: Where local sags or depressions occur in the existing pavement, a specific filling operation shall be instructed by the Engineer, which should be laid in accordance with Fig.500-1. Normally, the maximum layer thickness at any point should not exceed 100 mm. In placing multiple lifts, they should be arranged according to the correct method as illustrated.

Note : Profile corrective course material to be in accordance with the lift thickness.

Fig.500-1 : Methods for Providing Corrective Course for

Short Sags and Depressions.

For correction of camber or super-elevation of the existing carriageway, the method shown in Fig.500-2 shall be adopted, depending on the profile of the existing carriageway.

501.8.3.5 Covering the Profile Corrective Courses

Profile corrective course shall be so planned that the layer shall be covered by the designed base/wearing course at the earliest opportunity, before opening to regular traffic.

501.8.4. Surface Finish and Quality Control of Work

The relevant provisions of Section 900 of MORTH Book of Specifications-2013.

501.8.5. Arrangements for Traffic

During construction operations, arrangements for traffic shall be made in accordance the provisions of Clause 112 of the MORTH Book of specification-2013.

Case III : Converting two-sided camber to one-sided cross- fall during provision of a dual carriageway.

Fig. 500-2: Correction of Camber or Super-Elevation

501.8.6 Environmental Protection

The provisions of clauses 111 of MORTH Book of specifications 2013 and the provision of Annex A to Clause 501 shall apply.

501.8.7 Measurement for Payment

501.8.7.1 Cleaning of the Surface

The work of cleaning of the surface using mechanical broom and air-jet shall be incidental to the work of preparation of surface.

501.8.7.2. Scarifying

Scarifying the existing bituminous surface shall be measured and paid for on a square metre basis or as per contract conditions.

501.8.7.3. Prime Coat

Prime coat shall be measured and paid for on a square metre basis or as per contract conditions.

501.8.7.4. Tack Coat.

Tack coat shall be measured and paid for on a square metre basis or as per contract conditions.

501.8.7.5 Potholes and Crack Sealing

The work of filling potholes shall be measured separately and be paid for in square metres or on weight basis in tonnes as specified in the Contract.

The work of sealing cracks for applying fog spray or emulsion slurry seal shall be measured in square metres, for the area covered by the spray.

The work of sealing cracks of size 3 mm to 6 mm in width shall be measured in square metres or in linear meters as specified in the Contract.

The work of sealing cracks of size greater than 6 mm width shall be measured in linear metres.

501.8.7.6 Profile Corrective Course

Profile corrective course shall be measured as the volume laid in position in cubic metres, or in tonnage or as stipulated in the Contract. The volume shall be calculated by plotting the exact profile of corrective course as required, and laid superimposed on the existing pavement profile or corrective course as required, and laid, superimposed on the existing pavement profile. Cross-sectional areas of the profile corrective course shall be measured at intervals of 10 m centre to centre on straight sections and at 5 m centre to centre on curves longitudinally and at seven locations transversely, for two lane carriageway, and at three locations transversely for single lane and the volume shall be calculated using the method of end areas.

501.8.7.7 Filling of Local Depressions.

The work of filling depressions where instructed to be carried out separately shall be measured by the weight of the bituminous material placed in position.

501.8.8 Rates

501.8.8 Rate for Scarifying

The contract unit rate for scarifying existing bituminous surfaces, including repairing/reworking disturbed underlying layers and removing and stacking reusable and unusable materials, shall include but not necessarily be limited to, the cost of all labour, supply of materials needed for repair /reworking, hire charges of tools and plant, and transportation of scarified materials with all leads and lifts.

501.8.8.2 Rate for Premixed Bituminous Material

The contract unit rate for premixed bituminous material shall be payment in full for carrying out the required operations including full compensation for, but not necessarily limited to

i) Making arrangements for traffic to Clause 112 of MORTH Book of specifications except for initial treatment to verge, shoulders and construction of diversions.

ii) Cleaning of the surface.

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 g 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 rate shall cover the provision of bitumen at the application rate specified in the contract, with the provision that the variation in actual percentage of bitumen used shall be assessed and the payment adjusted accordingly as per Contract.

ix) The rates includes for all testing, mix design, transporting and testing of samples and cores and tests as directed by the Engineer and

x) The cost of all plant and laying trials as specified to prove the mixing and laying methods shall be deemed to be included in the Contractor's rates.

501.8.8.3 Rate for Prime Coat

The Contract unit rate for prime coat shall be as per Clause 502.8

501.8.8.4 Rate for Tack Coat

The Contract unit rate for tack coat shall be as per Clause 503.8

501.8.8.5 Rate for Filling of Local Depressions

The Contract unit rate for filling of local depressions shall be payment in full for (i) furnishing all material, (ii) all works involved including trimming, cleaning, backfilling, priming, application of tack coat, filling with bituminous material in layers and compacting each layer (iii) all labour tools, equipment and incidentals to complete the works in accordance with the Specifications.

501.8.8.6 Rate for Profile Corrective Course

The Contract unit rate for profile corrective course when laid separately shall be payment in full for carrying out the required operations as specified, and shall include all components listed in Clause 501.8.8.2.

NOTE :- Whenever the completed item of bituminous layer is inclusive of Tack coat as mentioned in wording of the item or in the specification of the item, No separate payment shall be made for Tack coat, However the measurement of Tack coat and asphalt (Bitumen) consumption shall be recorded and verified and rates of completed item be adjusted as per actual consumption, if within permissible limits.

Annex 'A' to Clause 501

Annex 'A'

PROTECTION OF THE ENVIRONMENT

1. GENERAL

1.1 This Appendix sets out limitations on the Contractor's activities specifically intended to protect the environment.

1.2 The Contractor shall take all necessary measures and precautions and otherwise ensure that the execution of the works and all associated operations on or off site are carried out in conformity with statutory and regulatory environmental requirements including those prescribed elsewhere in these specifications.

1.3 The Contractor shall take all measures and precautions to avoid any nuisance or disturbance arising from the execution of the works. This shall wherever possible be achieved by suppression of the nuisance at source rather than abatement of the nuisance once generated.

1.4 In the event of any spoil, debris, waste or any deleterious substance from the site being deposited on any adjacent land, the Contractor

shall immediately remove all such material and restore the affected area to its original state to the satisfaction of the Engineer.

2. WATER QUALITY

2.1 The contractor shall prevent any interference with the supply to or abstraction from, and prevent any pollution of, water resources (including underground percolating water) as a result of the execution of the Works.

2.2 Areas where water is regularly or repetitively used for dust suppression purpose shall be laid to fall to specifically constructed settlement tanks to permit sedimentation of particulate matter. After settlement, the water may be reused for dust suppression and rinsing.

2.3 All water and other liquid waste products arising on the site shall be collected and disposed of at a location on or off the site and in a manner that shall not cause nuisance or pollution.

2.4 The Contractor shall not discharge or deposit any matter arising from the execution of the Works into any waters except with the permission of the Engineer and the regulatory authorities concerned.

2.5 The Contractor shall at all times ensure that all existing stream courses and drains within, and adjacent to, the site are kept safe and free from any debris and any materials arising from the Works.

2.6 The Contractor shall protect all watercourses, waterways, ditches canals, drains, lakes and the like from pollution as a result of execution of the Works.

3. AIR QUALITY

3.1 The Contractor shall devise and arrange methods of working to minimize dust, gaseous or other air-borne emissions and carry out the Works in such a manner as to minimize adverse impacts on air quality.

3.2 The Contractor shall utilize effective water sprays during delivery, manufacture, processing and handling of materials where dust is likely to be created, and to dampen stored materials during dry and windy weather. Stockpiles of friable materials shall be covered with clean tarpaulins, with application of sprayed water during dry and windy weather. Stockpiles of material or debris shall be dampened prior to their movement, except where this is contrary to the Specifications.

3.3 Any vehicle with an open load-carrying area used for transporting potentially dust producing material shall have properly fitting side and tail boards. Materials having the potential to produce dust shall not be loaded to a level higher than the side and tail boards, and shall be covered with a clean tarpaulin in good condition. The tarpaulin shall be properly secured and extended at least 300 mm over the edges of the side and tail boards.

3.4 In the event that the Contractor is permitted to use gravel or earth roads for haulage, he shall provide suitable measures for dust palliation, if these are, in the opinion of the Engineer, necessary. Such measures may include sprinkling water on the road surface at regular intervals.

4 NOISE

4.1 The Contractor shall consider noise abatement measures in his planning and execution of the Works.

4.2 The contractor shall take all necessary measures so that the operation of all mechanical equipment and construction processes on and off the site shall not cause any unnecessary or excessive noise, taking into account applicable environmental requirements. The Contractor shall use all necessary measures and shall maintain all plant and silencing equipment in good condition so as to minimize the noise emission during construction works.

5 CONTROL OF WASTES

5.1 The Contractor shall control the disposal of all forms of waste generated by the construction operations and in all associated activities. No uncontrolled deposition or dumping shall be permitted. Wastes to be so controlled shall include, but shall not be limited to, all forms of fuel and engine oils, all types of bitumen, cement, surplus aggregates, gravels, bituminous mixes etc. The Contractor shall make specific provision for the proper disposal of these and any other waste products, conforming to local regulations and acceptable to the Engineer.

6 MEASUREMENT

6.1 No separate measurement shall be made in respect of compliance by the Contractor with these provisions. The Contractor shall be deemed to have made allowance for such compliance with these provisions in the preparation of his prices for items of work included in the Bill of Quantities and full compensation for such compliance will be deemed to be covered by them.

502 PRIME COAT OVER GRANULAR BASE

502.1 Scope

This work shall consist of the application of a single coat of low viscosity liquid bituminous material to a porous granular surface preparatory to the superimposition of bituminous treatment or mix. The work shall be carried out on a previously prepared granular/stabilization surface to Clause 501.8.

502.2 Materials

502.2.1 The primer shall be cationic bitumen emulsion SS1 grade conforming to IS:8887 as specified in the Contract.

502.2.2 Quantity of SS1 grade bitumen emulsion for various types of granular surface shall be as given in Table 500-3.

Table 500-3 : Quantity of Bitumen Emulsion for Various Types of Granular Surfaces

Type of Surface	Rate of Spray (kg/Sq.m.)
WMM/WBM	0.7-1.0
Stabilized soil bases/Crusher Run Macadam	0.9- 1.2

502.2.4 The correct quantity of primer shall be decided by the Engineer and 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.

502.3 Weather and Seasonal Limitations

Primer shall not be applied during a dust storm or when the weather is foggy, rainy or windy or when the temperature in the shade is less than 100 C. Surfaces which are to receive emulsion primer should be damp, but no free or standing water shall be present. Surface can be just wetted by very light sprinkling of water.

502.4 Construction

502.4.1 Equipment

502.4.1 Equipment

The primer shall be applied by a self-propelled or towed bitumen pressure sprayer equipped for spraying the material uniformly at specified rates and temperatures. Hand spraying shall not be allowed except in small areas, inaccessible to the distributor, or in narrow strips where primer shall be sprayed with a pressure hand sprayer, or as directed by the Engineer.

502.4.2 Preparation of Road Surface

The granular surface to be primed shall be swept clean by power brooms or mechanical sweepers and made free from dust. All loose material and other foreign material shall be removed completely. If soil/murum binder has been used in the WBM surface, part of this should be brushed and removed to a depth of about 2 mm so as to achieve good penetration.

502.4.3 Application of Bituminous Primer

After preparation of the road surface as per Clause 502.4.2, the primer shall be sprayed uniformly at the specified rate. The method for application of the primer will depend on the type of equipment to be used, size of nozzles, pressure at the spray bar and speed of forward movement. The contractor shall demonstrate at a spraying trial, that the equipment and method to be used is capable of producing a uniform spray, within the tolerances specified.

No heating or dilution of SS1 bitumen emulsion shall be permitted at site.

502.4.4 Curing of primer and Opening to traffic

A primed surface shall be allowed to cure for at least 24 hours or such other higher period as is found to be necessary to allow all the moisture/volatiles to evaporate before any subsequent surface treatment or mix is laid. Any unabsorbed primer shall first be blotted with a light application of sand, using the minimum quantity possible. A primed surface shall not be opened to traffic other than that necessary to lay the next course.

502.5 Quality Control of Work

For control of the quality of materials and the works carried out, the relevant provisions of Section 900 of the MORTH Book of specifications-2013 shall apply.

502.6 Arrangements for Traffic

During construction operations, arrangements for traffic shall be made in accordance with the provisions of Clause 112 of the MORTH Book of specifications.

502.7 Measurement for Payment

Prime coat shall be measured as mentioned in mode of measurement of relevant item.

502.8 Rate

The contract unit rate for prime coat shall be payment in full for carrying out the required operations including full compensation for all components listed in Clause 401.7 9i) to (v) and as applicable to the work specified in these Specifications. Payment shall be made on the basis of the provision of prime coat at an application rate of quantity at 0.6 kg per square metre/ or at the rate specified in the Contract, with adjustment, plus or minus, for the variation between this quantity and the actual quantity approved by the Engineer after the preliminary trials referred to in Clause 502.4.3.

503 TACK COAT

503.1 Scope

503.1 Scope

The work shall consist of the application of a single coat of low viscosity liquid bituminous material to existing bituminous, cement concrete or primed granular surface preparatory to the superimposition of a bituminous mix, when specified in the Contract or as instructed by the Engineer. The work shall be carried out on a previously prepared surface in accordance with Clause 501.8.

503.2 Materials

The binder used for tack coat shall be either Cationic bitumen emulsion (RS 1) complying with IS:887 or suitable low viscosity paving bitumen of VG 10 grade conforming to IS:73. The use of cutback bitumen RC:70 as per IS:217 shall be restricted only for sites at sub-zero temperatures or for emergency applications as directed by the Engineer. The type and grade of binder for tack coat shall be as specified in the Contract or as directed by the Engineer.

503.3 Weather and Seasonal Limitations

Bituminous material shall not be applied during a dust storm or when the weather is foggy rainy or when the temperature in the shade is less than 10° C. Where the tack coat consists of emulsion, the surface shall be slightly damp, but not wet. Where the tack coat is of cutback bitumen, the surface shall be dry.

503.4 Construction

503.4.1 Equipment

The tack coat shall be applied by a self-propelled or towed bitumen pressure sprayer, equipped for spraying the material uniformly at a specified rate. Hand spraying shall not be permitted except in small areas, inaccessible to the distributor, or narrow strips, shall be sprayed with a pressure hand sprayer, or as directed by the Engineer.

503.4.2 Preparation of Base

The surface on which the tack coat is to be applied shall be clean and free from dust, dirt and any extraneous material, and be otherwise prepared in accordance with the requirements of Clauses 501.8. The granular or stabilized surfaces shall be primed as per Clause 502. Immediately before the application of the tack coat, the surface shall be swept clean with a mechanical broom, and high pressure air jet, or by other means as directed by the Engineer.

503.4.3 Application of Tack Coat

The application of tack coat shall be at the rate specified in Table 500-5, and it shall be applied uniformly. If rate of application of Tack Coat is not specified in the contract, then it shall be permitted. Paving bitumen if used for tack coat shall be heated to appropriate temperature in bitumen boilers to achieve viscosity less than 2 poise. The normal range of spraying temperature for a bituminous emulsion shall be 20°C to 70°C and for cutback, 50°C to 80°C. The method of application of tack coat will depend on the type of equipment to be used, size of nozzles, pressure at the spray bar, and speed or forward movement. The Contractor shall demonstrate at a spraying trial, that the equipment and method to be used is capable of producing a uniform spray, within the tolerances specified.

Table 500-5: rate of Application of Tack Coat

Type of Surface	Rate of Spray of Binder in Kg. Per Sq.m.
Bituminous surfaces	0.20 – 0.30

Granular surfaces treated with primer	0.25 – 0.30
Cement concrete pavement	0.30 – 0.35

503.4.4 Curing of Tack Coat

The tack coat shall be left to cure until all the volatiles have evaporated before any subsequent construction is started. No plant or vehicles shall be allowed on the tack coat other than those essential for the construction.

503.5 Quality Control of Work

For control of the quality of materials and the works carried out the relevant provisions of Section 900 of the MORTH Book of Specifications 2013.

503.6 Arrangements for traffic

During the period of construction, arrangements for traffic shall be made in accordance with the provisions of Clause 112 of the MORTH Book of Specifications-2013.

503.7 Measurement for Payment

Tack Coat shall be measured in terms of surface area of application in square metres or as specified in the Tender Document.

503.8 Rate

The contract unit rate for tack coat shall be payment in full for carrying out the required operations including for all components listed in Clause 401.8 (i) to (v) and as applicable to the work specified in these Specifications. The rate shall cover the provision of tack coat, at 0.2 kg per square metre or at the rate specified in the Contract, with the provision that the variation between this quantity and actual quantity of bitumen used will be assessed and the payment adjusted accordingly.

NOTE :- Whenever the completed item of bituminous layer is inclusive of Tack coat as mentioned in wording of the item or in the specification of the item, No separate payment shall be made for Tack coat, However the measurement of Tack coat and asphalt (Bitumen) consumption shall be recorded and verified and rates of completed item be adjusted as per actual consumption, if within permissible limits.

Table 500-7 Aggregate Grading and Bitumen Content



Maharashtra Industrial Development Corporation

Schedule A

Name Of Work : Pusad Indl. Area....Strengthening of existing infrastructure in Pusad Growth centre.....

Schedule showing (approx) the material to be issued to the contractor for works to be executed on this contract, & the rate at which they are to be charged.

Sr. No.	Particulars	Quantity	Rate at which the Material is to be charged to the contractor with unit	Unit	Place of Delivery
NIL	NIL	NIL	NIL	NIL	NIL

TERMS & CONDITIONS FOR ISSUE OF MATERIAL UNDER SCHEDULE 'A'

1.Materials required in excess of the quantity may or may not be supplied by the Deptt. If not supplied, the contractor should make his own arrangements to provide the same, for which no extra claims will be entertained.

2.All materials remaining unused after the completion of the works should be returned to the Department at the Departmental Store. For the materials remaining unused & not returned, recovery will be effective at twice the issue rate of the materials or the prevailing market rate at the time of completion of work, whichever is higher.

3.Considerable delay is likely to occur in getting the materials required to be conveyed by rail, whether such materials are to be supplied by the MIDC or by the contractor himself. The contractor, therefore, should submit indent for his requirement sufficiently in advance to allow for the period usually taken for supply of such material.

No responsibility can be accepted for such delays in regard to supply of these materials. Every assistance will be given to obtain the supplies as quickly as possible.

4.Contractor should check the materials before they are issued to him. Any complaint after the material is accepted by him will not be entertained.

5.The contractor should make his own arrangements for storing, the material issued to him, by constructing a pucca shed which should be leak proof & should protect against moist climates.

6.All other materials not included in the above schedule will have to be procured by the

contractors from the open market at his own cost.

7.The contractor shall maintain a regular account of consumption of the material issued to him by the Department, either at cost or free of cost & shall be produced when asked for.

8.All conveyance charges including loading & unloading operations for bringing the materials issued from the place of delivery to the site of work should be borne by the contractor.

9.Weight of MS rounds that will be issued under Schedule 'A' will be computed on the basis of following table.

Dia of Bar in mm.	Weight in Kg/RM length of bar
6	0.22
8	0.39
10	0.62
12	0.89
16	1.58
18	2.00
20	2.46
22	2.92
25	3.85
28	4.83
32	6.31
36	7.99
40	9.87

In case of dispute or delegations in diameters, computation of weights shall be made at a rate of 0.785 Kg/Sq.cm. of cross sectional area.

10.The issue of steel from the stores stipulated in Schedule 'A' shall be on the basis of lengths of MS rounds measured in metric system to the nearest 10mm. length. The

surplus steel after completion of work shall also be taken back & measured on the same basis. The MS rounds returned to the departmental store shall be in the form of cut pieces of whole lengths remaining unutilised & will be accepted as such. Pieces of length one metre & above shall accepted. The percentage waste in the form of pieces of length below one metre shall not be more than 1% of the tonnage actually used in work. Any additional loss beyond 1% stipulated above, shall be treated as used in an unauthorized & wasteful manner, & recovery at double the issue rate or market rate, whichever is more, shall be effected for such wasteful use of steel.

BID SECURITY (BANK GUARANTEE PROFARMA

(for work costing more than 25 crores)

WHEREAS, _____ [Name of bidder] (hereinafter called “the Bidder”) has submitted his Bid dated _____ (date) for the construction of _____ [name of Contract hereinafter called “the Bid”]

KNOW ALL PEOPLE by these presents that We _____ [name of Bank] of _____ [name of Country] having our registered office at _____ (hereinafter called “the Bank”) are bound unto _____ [name of Employer] (hereinafter called “the Employer”) in the sum of _____ * for which payment well and truly to be made to the said Employer the Bank itself, his successors and assigns by these presents. SEALED with the Common Seal of the Said Bank this _____ day of _____ , 20 ____

THE CONDITIONS of this obligation are :

If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of bid.

OR

If the Bidder having been notified to the acceptance of his bid by the Employer during the period of bid validity :

(a) Fails or refuses to execute the Form of Agreement in accordance with Instructions to Bidders, if required; or
(b) fails or refuses to furnish the performance Security, in accordance with the Instructions to Bidders ; or We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions. This Guarantee will remain in force up to and including the date - _____ ** days after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extensions(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE _____

SIGNATURE _____

WITNESS _____

SEAL _____

[Signature, name and address]

* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.

** 45 days after the end of the validity period of the bid Date should be inserted by the Employer before the Bidding documents are issued.



Maharashtra Industrial Development Corporation

Schedule B

Name Of Work : Pusad Indl. Area....Strengthening of existing infrastructure in Pusad Growth centre....

Name Of Sub Estimate : Sub Estimate 1: Strengthening and providing concrete treatment to roads for 7.50 m wide roads & construction of CD work.

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
1	13,490.00	Excavation for roadway in earth, soil of all sorts, sand, gravel or soft murum including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading for embankment or stacking as directed.			Cubic Meter	
2	44,970.00	Compacting the hard murum side widths including laying in layers on each side with vibratory roller including artificial watering etc. complete.			Square Meter	
3	8,100.00	Conveying materials obtained from road cutting including all lifts, laying in layers of 20cm. to 30cm. breaking clods, dressing to the required lines, curves, grades and section, watering and compacting to not less than 97% of standard proctor density for a lead of 300m. to 500m. inclusive, from the site of excavation to the site of deposition as directed.			Cubic Meter	
4	12,720.00	Providing earth work in embankment with approved materials obtained from other sources upto lead of 50m. including all lifts, laying in layers of 20cm. to 30cm. thickness breaking clods, dressing to the required lines, curves, grades & section, watering and compaction with vibratory roller with V-Sat attachment to achieve not less than 97 % of standard proctor density etc. complete (Material obtained from Other sources)			Cubic Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
5	6,750.00	Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader/ Paver on prepared surface and compacting with vibratory roller to achieve the desired density, complete as per clause 401 -- Plant Mix Method and Grading - I Material			Cubic Meter	
6	4,780.00	Wet Mix Macadam -- Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. Laying By Grader/Paver.			Cubic Meter	
7	30,110.00	Providing and laying 125 micron Low Density Polyethylene (LDPE) sheet confirming to IS 3395 : 1997 below concrete pavement including all materials and labour complete.			Square Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
8	4,520.00	Construction of dry lean cement concrete Sub- base over a prepared sub-grade with coarse and fine aggregate (natural sand/ VSI grade finely washed crushed sand) conforming to IS: 383, the size of coarse aggregate not exceeding 25 mm, , cement content not to be less than 150 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant/ Weigh batch mixer, transported to site with all leads and lifts, laid with a paver with electronic sensor /by suitable means as approved by Engineer-in-charge , compacting with vibratory roller, finishing, curing and including preparation of sub-grade surface if required etc. complete. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete.			Cubic Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
9	8,800.00	Providing and laying in-situ M40 Grade unreinforced plain cement concrete pavement over a prepared sub base with 43 grade cement , coarse and fine aggregate (natural sand/ VSI grade finely washed crushed sand) conforming to IS 383, using fine and coarse aggregates combined gradation as per Table 600-3 of MORTH Specification 2013, mixed in a batching and mixing plant/ non tilting mixer and Weigh batcher as per approved mix design, admixtures, transporting to site, spreading, laying with approved make paver,compacted and finished in a continuous operation, finishing to lines and grades as directed by Engineer-in-charge and curing by curing compound /by providing cement vata in cement Mortar 1:8 @0.6m X 0.6m centre to centre, admeasuring 80 mm at bottom and 40 mm at top with depth of 75mm and maintaining the same throughout curing period by any other method approved by Engineer-in-charge. with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete.			Cubic Meter	
10	19,400.00	Cutting transverse contraction joints 3 to 4 mm wide and depth 60mm. .in concrete slab using concrete cutting machine with diamond studded saw within 48 hours of casting of bay / slab etc. complete including subsequent widening of the groove 8 to 10 mm. wide at top having depth of 15 mm. as directed by Engineer incharge.			Running Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
11	19,400.00	Providing to contraction joints polysuphide sealent (Pouring grade) confirming to BS : 5212 - 1989 into sawed groove widened at top for sealent reservoir of specified size and shape as per detailed drawing including fixing Polyethylene foam backer rod of required diameter (appraox. 25% larger than the initial 3 mOne Metric Tonneo 4 mm. joint) overlaid with bond breaking tape as per detailed drawing. Item includes cleaning the joints with water jet / air compressor and allowing joint to become thoroughly dry before sealent is applied and applying primer. (A) Contraction and longitudinal joints (15 mm. deep x 8 mm.wide)			Running Meter	
12	25,550.00	Providing and fixing in position TMT FE 500, 32 mm dia dowel bars precoated with anticorrosive epoxy paint of required Dia. 60 cms. Long and at 30.00 cm. C/C and wherever directed including handling, straightening, necessary cutting supported by TMT FE 500, chairs with proper alignment by using properly designed assembly of Bulkheads lubricating half length with bituminous paint as directed etc. complete.			Number	
13	6,816.00	Providing and fixing in position TMT FE 500, tie bars precoated with anticorrosive epoxy paint of 12 mm dia. 70 cms.long and at 30.00 cm. C/C and wherever directed including handling, straightening wrapping with paper of approved quality for half length, necessary cutting, handling, straightening , supported by assembly of TMT FE 500, chairs with proper alignment etc. complete.			Number	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
14		Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015.				
14.1	1,080.00	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, Easylux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).			Square Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
15	42.00	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.			Metric Tonne	
16	300.00	Providing, laying and fixing P.V.C. pipe of 110 mm. dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.			Running Meter	
17	410.00	Providing and fixing bitumen sheet to pavement concrete at contraction joint etc. complete			Square Meter	
18	720.00	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (All Lift) By Mechanical Means			Cubic Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
19	130.00	Excavation for foundation in Soft rock and old cement or lime masonry foundations including removing the excavated material upto a distance of 50 metres beyond the building area and stacking as directed, including dewatering, preparing the bed for the foundation and necessary back filling with available earth /murum, ramming, watering including shoring and strutting etc. complete (All lift) By Mechanical Means			Cubic Meter	
20	22.00	Providing and laying in PCC M15 grade leveling course below approach slab complete with fully automatic micro processor PLC with SCADA enabled reversible drum type mixer/ concrete batch mix plant (pan mixer) as per drawings and Technical specifications etc. complete with fine agreeegates of required specifications (VSI sand finely washed etc)			Cubic Meter	
21	150.00	Providing and laying in situ /Ready Mix cement concrete M-20 of trap / granite /quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering formwork, laying/pumping cover blocks, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)			Cubic Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
22		Providing ISI standard R.C.C. pipes in standard lengths of following class and diameter suitable for either collar joints or rubber ring joints, excluding GST lev-ied by GOI & GOM in all respect including inspec- tion charges, transport to departmental stores, unloading and stacking etc. complete as per IS-458/1988. Note :One collar should be supplied with each full length plain ended RCC pipe, cost including in rates below. One rubber ring should be supplied with each full length of socketed pipe, cost included in rates below. Note :Only 85% rate is payable till satisfactory hydraulic testing is given.				
22.1		C lass 'NP-II' (For 2.00 m. length) Coller Joints				
	1,656.00	7) 300 mm.			Running Meter	
	450.00	3) 150 mm.			Running Meter	
23	48.00	Providing and laying cement concrete pipe of IS 458:2003 NP-3 class of 900mm diameter in proper line, level and slope etc. complete.			Running Meter	
24	168.00	Providing and laying cement concrete pipe of IS 458:2003 NP-3 class of 600mm diameter in proper line, level and slope etc. complete.			Running Meter	
Total Amount Rs :						0.00

Name Of Sub Estimate : Sub Estimate 2: Strengthening and providing 60 mm DBM & 40 mm BC asphalting treatment to roads for 5.50 m wide roads in Pusad Indl. area

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
1	27,450.00	Picking the road surface including sectioning etc. complete (BT surface.)			Square Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
2	9,240.00	Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader/ Paver on prepared surface and compacting with vibratory roller to achieve the desired density, complete as per clause 401 -- Plant Mix Method and Grading - I Material			Cubic Meter	
3	5,870.00	Wet Mix Macadam -- Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. Laying By Grader/Paver.			Cubic Meter	
4	26,730.00	Prime coat - Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including cleaning of road surface and spraying, primer at the rate of 0.60 kg/sqm using mechanical means.			Square Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
5	1,603.80	DENSE BITUMINOUS MACADAM: --Providing and laying dense bituminous macadam using crushed aggregate of grading 1, premixed with bituminous binder Bitumen of specified grade,@ 4.50 % by weight of total mix and filler, transported at site with VTS, laid over a previously prepared surface , finished to the required grade ,level, alignment,and rolling to achieve the desired density for 76/100 mm compacted thickness with drum mix type hot mix plant with SCADA having complying essential features of Hot mix plant as per IRC-27-2009 specified conditions and attachments such as electronic load sensor based belt conveyers, automatic synchronization of bitumen and aggregate fedder,built in dust controller system and PLC for Drum Mix plant ,Sensor paver, and Vibratory roller excluding prime/Tack coat etc. complete --Bitumen VG-30 grade with stone dust filler (VG-30 bulk bitumen rates are considered to arrive at rates)			Cubic Meter	
6	26,730.00	Providing and applying tack coat on the prepared surface heating by flames in Boiler and spraying bitumen with sprayer on Granular surface treated with primer @ 2.75 kg/10 sqm(VG-30 bulk bitumen rates are considered to arrive at rates)			Square Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
7	1,069.20	BITUMINOUS CONCRETE:--Providing and laying bituminous concrete using crushed aggregate of grading 1, premixed with bituminous binder @5.40% by weight of total mix and filler, transported at site with VTS, laid over a previously prepared surface, finished to the required grade ,level, alignment, and rolling to achieve the desired density for 50mm compacted thickness with drum mix plant with SCADA, Sensor paver and Vibratory roller excluding prime/Tack coat etc. complete --Bitumen of specified grade with stone dust filler. (VG-30 bulk bitumen rates are considered to arrive at rates)			Cubic Meter	
8		Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015.				

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
8.1	1,480.00	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, Easylux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).			Square Meter	
9	14,650.00	Providing earth work in embankment with approved materials obtained from other sources upto lead of 50m. including all lifts, laying in layers of 20cm. to 30cm. thickness breaking clods, dressing to the required lines, curves, grades & section, watering and compaction with vibratory roller with V-Sat attachment to achieve not less than 97 % of standard proctor density etc. complete (Material obtained from Other sources)			Cubic Meter	
10	29,904.00	Excavation for roadway in earth, soil of all sorts, sand, gravel or soft murum including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading for embankment or stacking as directed.			Cubic Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
11	14,952.00	Conveying materials obtained from road cutting including all lifts, laying in layers of 20cm. to 30cm. breaking clods, dressing to the required lines, curves, grades and section, watering and compacting to not less than 97% of standard proctor density for a lead of 300m. to 500m. inclusive, from the site of excavation to the site of deposition as directed.			Cubic Meter	
12	100.00	Providing, laying and fixing P.V.C. pipe of 110 mm. dia. with fittings such as bends, tees, reducers, clamps, etc. including necessary excavation, trench filling etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.			Running Meter	
Total Amount Rs :						0.00

Name Of Sub Estimate : Sub Estimate 3: Construction of Cable duct and Navigation system in Pusad Indl. area

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
1	4,890.00	Excavation for roadway in earth, soil of all sorts, sand, gravel or soft murum including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50m. and spreading for embankment or stacking as directed.			Cubic Meter	
2	4,410.00	Conveying materials obtained from road cutting including all lifts, laying in layers of 20cm. to 30cm. breaking clods, dressing to the required lines, curves, grades and section, watering and compacting to not less than 97% of standard proctor density for a lead of 300m. to 500m. inclusive, from the site of excavation to the site of deposition as directed.			Cubic Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
3	250.00	Providing and laying in PCC M15 grade leveling course below approach slab complete with fully automatic micro processor PLC with SCADA enabled reversible drum type mixer/ concrete batch mix plant (pan mixer) as per drawings and Technical specifications etc. complete with fine aggregates of required specifications (VSI sand finely washed etc)			Cubic Meter	
4	724.18	Providing and laying in situ /Ready Mix cement concrete M-20 of trap / granite /quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering formwork, laying/pumping cover blocks, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)			Cubic Meter	
5	36.00	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.			Metric Tonne	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
6	212.00	Providing, erecting pre-cast elements such as cover slabs for drains, grills, kerbs, kerb stone, dividers, manholes, frames, manholes covers, gutters, fence posts grills, rails lintels, sills, bed blocks, steps or any other member or element as per drawings & specifications using RCC grade M-20 including shuttering as may be required, compacting by plate vibrator, curing and finishing the element where required with 1:3 cement mortar, transporting to site and erecting in position grouting with cement mortar 1:3 as may be required and curing etc. all labour and material complete. (Including cost of Steel reinforcement) (Rates excluding GST)			Cubic Meter	
7	1,628.00	Providing and applying two coats of flat oil paint of approved colour and shade to internal / external plastered surfaces including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.			Square Meter	
8	9.66	Providing, fabricating and erecting at site of work the tubular steel structure (shed) as per standard design and specifications having various spans in between trusses and in multiples of standard length of bays as specified as per standard specifications, inclusive of cost of steel tubular trusses, tubular columns purlins, tie runners, foundation bolts, base plates, nuts and bolts, welding wherever required etc. as per detailed drawing inclusive of one coat of anticorrosive paint and two coats of oil painting of approved quality and shade etc. complete. Spec. Nos. : As directed by Engineer-in-charge.			Metric Tonne	
9	100.00	Foundation & connecting bolts and nuts & washers etc. complete.			kilogram	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
10	316.80	Providing Nomoculture plate of Industrial Area shall be made out of 3 mm G.P. sheet (Non Metallic Material) in square or rectangular shape of any size made out of 3mm thick GP Sheet (Non Metallic Material) highly resistance to moisture and having tensile strength 80 Mpa. Compressive strength 100 Mpa and treated for adhesive bonded with green retro reflective sheeting of high intensity grade having pressure sensitive heat activated adhesive white reflective cut out border with the message having pressure sensitive screen printing of green transparent current over while retro reflective sheeting having border and message in while back ground having a finish surface at back side with pigment french gray colour including M.S. angle of size 35X35X3 mm etc. complete.			Square Meter	
11	36.29	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (All Lift) By Manual Means			Cubic Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
12	2.27	Providing and laying Cast in situ/Ready Mix cement concrete in M15 of trap/ granite/quartzite/gneiss metal for bed blocks, foundation blocks and such other items including bailing out water, Steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)			Cubic Meter	
13	4.02	Providing, cutting, bending, hooking, tying and laying in position TMT FE 500 steel bars for reinforcement for all RCC works as per detailed drawings etc. complete.			Metric Tonne	
14	2.00	Providing & fixing MIDC layout Board in mono pipe type structure in Industrial area made out of 3 mm thick G.P. sheet highly resistance to moisture and having tensile strength 80 Mpa , compressive strength 160 Mpa ...etc complete			Number	
15	2.00	Providing & fixing MIDC Board (Both Side) in mono pipe type structure in Industrial area made out of 3 mm thick G.P.sheet highly resistance to moisture and having tensile strength 80 Mpa , compressive strength 160 Mpaetc complete.			Number	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
16	15.00	Providing and fixing navigation system for plot nos and direction in industrial area manufactured in mono pipe of 100 mm dia x 400 thik having 3 mm GP sheet high resistance to moisture and having tensile strength 80 Mpa and compressive strength 160 Mpa and treated for adhesive bonded with green retro- reflective sheeting of high intensity grade having pressure sensitive heat activated adhesive screen printing of green transparent colour over white retro- reflective sheeting having border and message and white back ground having finish surface at backside with pigmented French grey colour and erected on mono tubular structure made of 100 mm x 4 mm thik RW ms pipe heavy duty 3.0 m long having bracing on ms pipe 40 mm x3 mm thick, informatory board of size 1.20 x 0.90 having ms angle frame 40 x40x5 mm, support 25x25x4 mm ms angle having foundation plate 12 mm thick. The column and bracing shall be duly good Quality. treated with a conversion coating of iron or iron phosphate and fixing the mono column in M-15 concrete as per drawing with nuts and bolts and GI fixture etc.			Number	
Total Amount Rs :						0.00

Name Of Sub Estimate : Sub Estimate No.4...P/E/C of Street Light, High Mast, Pumping machinery and allied works.

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
1		Sub Estimate - P/E/C street lights along the road in Pusad Industrial Area				
2		Hot Dipped Galvanized Poles & High-Mast (OH-HM)				

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
2.1	325.00	Providing & erecting 8 m high (clear height) galvanised octagonal pole with foundation bolts having bottom of 135 mm A/F, top 70 mm A/F on provided foundation as per specification no. OH-PL/OPL			each	
2.2	325.00	Providing and erecting galvanised 1000mm single arm sword type bracket with FRP dome and ball as per specification no. OH-PL/BKT			each	
3		Outdoor Fittings (FG-ODF)				
3.1	325.00	Supplying and erecting integrated LED street light fitting 85-90W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 9300 Lumens, min. efficacy of 110 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140-270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs at L70B50 including driver complete with minimum 2 Years warranty as per specification No. FG-ODF/SL.			each	
4		Bunch of Wires (WG-MA/BW)				
4.1	2,600.00	Supplying and erecting PVC insulated PVC round sheathed FR 1.5 sq.mm (30 no. x 0.25mm dia.) 3 core flexible multi stranded copper industrial cable for voltage grade up to 1.1 kV			Meter	
5		Cable Enclosures (CB-CE)				
5.1	8,375.00	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, complete.			Meter	
6		LT Cables (Aluminum) (CB-LT/AL)				

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
6.1	10,400.00	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 4 core 10 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL			Meter	
6.2	250.00	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 4 core 16 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL			Meter	
7	2,600.00	Supplying & erecting crimping type aluminium lugs for cable up to 16 sq. mm. complete as per specification no. CB-CL/AL			Number	
8		Plate, Pipe type Earthing (EA-EP)				
8.1	325.00	Supplying, installing and testing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all accessories of GI materials & recording the results as per specification no. EA-EP			each	
9		C.C. Foundation				
9.1	0.60	Making cement concrete foundation in 1:3:6 cement concrete, (20 to 25) mm. stone metal duly plastered with necessary curing for complete. (pole muffing or any other purpose)			Cubic Meter	
9.2	325.00	Making M-20 grade reinforced cement concrete foundation by considering the safe soil bearing capacity at site as 10 T/sq.m at 1.5m depth including supply of steel, concrete, excavation and fixing provided nut bolts with the help of template, duly plastered as per design complete (for 6m to 8m high octagonal/conical GI pole).			each	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
10		Mini Feeder Pillar (SW-MFP)/ Street Light Control Panel (SW-STCP)				
10.1	1.00	Supplying & erecting three phase, 415V, street light control panel upto the max load of 6kW, TPN MCB 40A, powder coated CRCA 14 SWG sheet, outdoor type, having IP54, IK10 protection, suitable rating contactor, 24 hrs. astronomical time switch with minimum 5 years battery back up, auto/manual selector switch, ON/OFF push buttons, indicator lamps, control wiring, metering device, etc. for automatic operation with overcurrent, short circuit, earth fault protection on provided iron frame / CC foundation as per specification SW-STCP.			each	
10.2	4.00	Supplying & erecting three phase, 415V, street light control panel upto the max load of 12kW, TPN MCB 63A, powder coated CRCA 14 SWG sheet, outdoor type, having IP54, IK10 protection suitable rating contactor, 24 hrs. astronomical time switch with minimum 5 years battery back up, auto/manual selector switch, ON/OFF push buttons, indicator lamps, control wiring, metering device, etc. for automatic operation with overcurrent, short circuit, earth fault protection on provided iron frame / CC foundation as per specification SW-STCP.			each	
11		Painting (CW-PTG)				
11.1	325.00	Painting identification number by indelible ink marker/ enamel paint on fittings/ equipment with the help of ladders if necessary by dismantling and refitting the enclosures, tubes etc if required the same and refitting complete.			each	
12	-137.00	Rebate for scrap value of exsisting installation of street lights to be dismantled & retained by the contractor viz pole , cable, fitting , wire , frp box etc complete			each	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
13		Sub Estimate - P/E/C High-Mast at Prominent Locations in Pusad Industrial Area				
14	5.00	Supplying and erecting 12.5 m (clear height) motorized high-mast (Top -150mm, Bottom- 360mm) hot dipped galvanized material with average minimum thickness 65 micron, made from high tensile structure grade steel as per BSEN - 10025 S 355/E350 & 3mm thickness, with base plate 25 mm thick x OD 520 mm grade as per IS-2062, pole made in single section & submerge arc welded, with lowering & raising motorized unit, wire rope stainless steel 316 grade 2 nos., 7x19 construction 5mm, SG-DG U clamps, double drum with assembly 250 kg, 5x2.5 Sq.mm. flexible copper cable with lantern carriage assembly suitable for max. 12 nos. luminaries and its control gear box, lightning arrestor, arrangement for fixing aviation light, night glow reflector on pole at suitable height, high-mast with serial number, factory inspection report/test report of high-mast should be provided as per specifications on provided foundation J type stud/bolts with double check nuts & necessary accessories complete. specification no. OH-PL/HM			Per Set	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
15	5.00	Supplying and erecting outdoor stand mounted feeder pillar for high-mast of the same manufacturer with 32A TPN MCB incomer, 24hr astronomical time switch with minimum 5 years battery backup, 25 A TP contactor for automatic switching of luminaries, 2 no. 9A contactors and raise/lower push button, and provision for termination of adequate size of incoming and outgoing cables complete erected in min. 14 SWG CRCA sheet box with supporting angles, self lock, gasket and slanting top erected on CC foundation complete.			Job	
16	5.00	Making M-20 cement concrete foundation by considering the safe soil bearing capacity at site as 10 T/sq.m at 2m depth including excavation and fixing provided nut bolts with the help of template, duly plastered as per design complete (for 16m raising lowering high mast).			each	
17	40.00	Supplying and erecting integrated LED street light fitting 120W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 13000 Lumens, min. efficacy of 110 lumen/W, CRI>70, CCT upto 6500K,THD<10%, p.f. >0.95, operating range of 140-270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs at L70B50 including driver complete with minium 2 Years warranty as per specification No. FG-ODF/SL.			each	
18	120.00	Supplying and erecting PVC insulated PVC round sheathed 1.5 sq.mm (30 no. x 0.25 mm dia.) 3 core flexible multi stranded copper Industrial cable for voltage grade up to 1.1 kV			Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
19	300.00	Supplying, erecting & terminating XPLE armoured cable 4 core 16 sq. mm. aluminium conductor with continuous 5.48 sq. mm. (12 SWG) G.I. earth wire complete erected with glands & lugs, on wall / trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL			Meter	
20	250.00	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 90 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, complete.			Meter	
21		Cable Glands(CB-GL)				
21.1	10.00	Supplying & erecting single compression type brass cable glands for 3 to 4 core 16 sq mm /3 to 4 core 25 sq mm /3 core 35 sq mm cable as per specification No. CB-GL			each	
22		Cable Lugs (Aluminium) (CB-CL/AL)				
22.1	180.00	Supplying & erecting crimping type aluminium lugs for cable upto 16 sq mm complete as per specification No. CB-CL/AL			each	
23	5.00	Supplying, installing and testing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all accessories of GI materials & recording the results as per specification no. EA-EP			each	
24		Sub Estimate - Supplying & erecting 100 kVA Transformer with UG Cable Work at WTP and Jackwell in Pusad Industrial Area				
25		Brackets (OH-BKT)				

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
25.1	2.00	Supplying & erecting inline D. P. Structure for 11/0.415 kV, 100 kVA Transformer with R.S.J. Pole 2 Nos. of size 100 x 116 mm x 11 Mtr. Long with suitable Distribution Box of C.R.C.A. Sheet 16 SWG with 4 Pole MCCB 200 Amps as incomer & 6 Nos. 100 Amps Kitkat / MCCB for out going circuits. Transformer D.P. Structure includes the A. B. Switch 200 Amps, D.O. fuse Set & L.A. Set. 2 Nos. of Top channel of size 100 mmx 50 mm for erection of A.B. Switch & 2 Nos. Base channel of size 100 mm x 50 mm for erecting Transformer Channel of size 75 x40 mm for erecting D.O. Fuse Set, L.A., A.B. Switch handle etc. Angle of size 50 x 50 x6 mm for erecting Distribution Box , Transformer Belt etc.as per drawing (min. 124 Kg. iron work) with necessary clamps, Nut-bolts. V cross arm, top clip, insulators etc. complete with caution board & barbed wire, D.P. Structure shall be erected in c.c. foundation complete			each	
26		Non-sealed transformer (SS-TR-NSL)				

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
26.1	2.00	Supplying, installing, testing & commissioning of 3 phase, 11/0.433 kV, 50 Hz., 100 kVA, Mineral oil immersed and naturally cooled outdoor type, aluminium wound Non-sealed transformer, delta/star connected with additional neutral brought out on load side, temperature rise should not exceed 40° by thermometer in oil and 45° by the resistance method in winding at full load rating, using type A winding insulation (kraft paper) , with standard accessories complete with test certificate with losses below 475 Watts at 50% load, 1650 Watts at 100% load as per IS:1180 (part 1) : 2014, with necessary permissions of Electrical Inspector, as per specification no SS- TR-NSL.			each	
27		Excavation (CW-EXN)				
27.1	3.00	Excavating Soft murum/Soft soil road by chiselling for preparing pit for poles stay or earth plates or for laying cables, pipes & clearing the site by removing debris & making the site good complete.			Cubic Meter	
28	3.00	Making cement concrete foundation in 1:3:6 cement concrete, (20 to 25) mm. stone metal duly plastered with necessary curing for complete. (pole muffing or any other purpose).			Cubic Meter	
29	4.00	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials as per specification no. EAEP			Number	
30	900.00	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 3½ core 120 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL			Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
31	16.00	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 3½ core 70 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL			Meter	
32		Accessories				
32.1	4.00	Supplying and erecting G.I. stay set for poles, including loop insulators at inaccessible height with anchor plate 300x300x6 mm., straining screws, G.I. stay wire 7/8 SWG, G.I. stay rod 20mmx1.8m length and pole clamps duly erected in provided cement concrete foundation complete.			each	
33	2.00	Providing Erecting & commissioning DTC Metering With Box single Core LT XLPE Cable as required for 100 KVA DP			Number	
34		Sub Estimate - Supplying, erecting, testing and commissioning of diesel generating set with alternator of 100 kVA at WTP and Jackwell in Pusad Industrial Area				

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
34.1	2.00	Supplying, erecting, testing and commissioning of diesel generating set with alternator of 100 kVA output continuous rating, 3 phase, 415 V, 50 Hz, 0.8 p.f., A.C. supply, a totally enclosed air cooled / liquid cooled multi-cylinder diesel engine developing suitable BHP at 1500 rpm with 10% overload for 1 hour in 12 hours, along with standard accessories, self-excited, self-regulated, screen protected alternator with static excitation system running at 1500 RPM as per IS 4722-2001 with voltage regulation +/- 5 %, with performance class G2/G3 and maximum fuel consumption 17.4 ltr/hr @75% loading. Both the engine and alternator direct coupled on a common fabricated steel base frame and mounted on anti-vibrating pads, with standard control panel comprising meters, switchgears, indicators connected with suitable wires/cables, the complete set enclosed in composite acoustic enclosure as fully assembled integral unit made of 16 SWG CRCA sheet, sound absorbing material to restrict sound level up to 75 dB at 1.0 m, provided with first filling of oil, diesel not less than 230 ltr etc., on provided M20 grade CC foundation as per specification no. GEN-DG			each	
35		Auto Mains Failure Panels (AMF Panels) (GEN-AMF/SYNC)				

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
35.1	2.00	Supplying, erecting, testing and commissioning of microprocessor based AMF panel suitable for diesel generating set of above 82.5 kVA upto 100 kVA capacity 3 phase, 415 V, 50 Hz, A.C. supply with all standard features, safeties etc as per specification no. GEN-AMF.			each	
36	120.00	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable, 1100 V 3½ core 150 sq. mm. aluminium conductor complete erected with glands & lugs on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL			Meter	
37	100.00	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 160 mm outside dia, double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, complete.			Meter	
38	4.00	Supplying, installing and testing earthing with galvanised iron earth plate size 60 x 60 x 0.6 cm complete with all accessories of GI materials & recording the results as per specification No. EA-EP			each	
39	20.00	Making cement concrete foundation in 1:3:6 cement concrete, (20 to 25) mm. stone metal duly plastered with necessary curing for complete. (pole muffing or any other purpose).			Cubic Meter	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
40	2.00	Providing, erecting, commissioning and testing of Vertical Turbine water lubricated Pump capable of discharge 125 M3/Hr of water at duty point head of 33 meter with head range between 31.5 mtr. to 34.5 mtr. with 4 mtrs. long 150 mm x 30 mm size Flanged Column Assembly including BA & Strainer in 1.5 mtr. Section, including CF8M Impeller & Neck Ring, SS410 Shafts, Bowl Assembly, CI/MS Discharge Head, SS Strainer & SS Fasteners etc. complete.			Number	
41	2.00	Providing, erecting, commissioning & testing of 18.5 KW / 25 HP, 4 Pole, Vertical Hollow Shaft induction motor, TEFC, Efficiency Class : IE 3, Class "F" insulation, IP 55 protection (IS:4691) suitable to operate on 3 phase 440 volts 50 Hz, A.C. supply with 3 Nos. PTC Thermistors etc. complete & confirming to IS:12615.			Number	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
42	1.00	L. T. Control Panel board, fabricated from 14 G sheet steel, totally dust & vermin proof, powder coated, suitable for 2 Nos. (1 No. Working & 1 Nos. Stand by) 25 HP Pumpset consisting of : Incoming Feeder : 1 No. 200 Amp. (Release Range 125 - 160 Amp.) 35 KA, 4 Pole, Moulded case circuit breaker with under voltage release & Earth fault / Earth Leakage Relay with CBCT 3 Nos. 160 Amp. HRC fuse link with fuse base. 01 No. Digital Voltmeter 3 Phase, 96 mm X 96 mm, Square 01 No Digital Ammeter 3 Phase, 96 mm X 96 mm, Square with CT'S 1 Set Phase indicating lamps 1 Set Control fuses/MCB 1 No. Digital Power factor Meter 3 Phase , 3 Element 1 No. Phase Sequence Meter with operating Push Button 1 Set 200 Amp. Copper Busbars Outgoing Feeder : 2 Nos. For 25 HP Pumpset, each consisting of 1 No. 100 Amps. (Release Range 63 - 80 Amp.) 35 KA 3 pole, Moulded case circuit breaker 3 Nos. 63 A.HRC base with fuse link. 1 No. 25 HP Fully automatic Star Delta Starter with 32 Amp. Power Contactor, Overload Relay, Star Delta Timer, Motor Protection Relay, Digital Ammeter with CT's & Selector Switch etc complete.01 NO. FEEDER FOR AUTOMATIC POWER FACTOR CONTROL PANEL CONSISTS OF : 1 No Incomer 100 Amps. (Release Range 63 - 80 Amp.) 35 KA 3 pole, Moulded case circuit breaker 3 Nos. 63 Amps HRC base with fuse link. 01 No. Digital Multifunction Meter VAF + PF meter with CT's indicating lamps, 1 No. Microprocessor based power factor controller 5 Nos MCB, 5 Nos Contactors, 5 Set ON/OFF Push buttons, 5 Nos Capacitor ON indication lamp, 2 No Control Contactors, 1 No. Auto/Manual			Number	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
		Selector Switch 25 KVAR Capacitor in banks. 1 No. For lighting feeder, consisting of 32 A Switch disconnecter fuse unit with HRC fuses. 1 No. For Spare feeder, consisting of 63 A Switch disconnecter fuse unit with HRC fuses				
43	3.00	150 mm dia. Glycerin filled Pressure Gauge with Syphon Tube, Syphon Cock etc. Complete.			each	
44	6.00	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all material			each	
45	200.00	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose			kilogram	
46	20.00	Supplying, erecting & terminating XLPE armoured cable 3½ core 50 sq. mm. Aluminium conductor with continuous 7.794 sq. mm. (10 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL			Meter	
47	60.00	Supplying, erecting & terminating XLPE armoured cable 2 Run, 3 core, 16 sq. mm. Aluminium conductor with continuous 7.794 sq. mm. (10 SWG) G.I. earth wire complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL			Meter	
48	2.00	Making cement concrete foundation in 1:3:6 cement concrete, (20 to 25) mm. stone metal duly plastered with necessary curing for complete.			Cubic Meter	
49	2.00	Providing, fixing in position and jointing 150 mm diameter, C.I.D.F. Glandless Sluice valves, Class-I type, both end flanged with Spur/Worm Gear arrangement, PN-1.0 (Suitable for working pressure of 10 kg/cm ² confirming to IS:14846-2000			Number	

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
50	2.00	Providing, fixing in position and jointing 550 mm diameter, C.I.D.F. flanged Reflux Valves, without bypass arrangements, PN-1.0 (Suitable for working pressure of 10 kg/cm ² confirming to IS: 5312.			Number	
51	2.00	Providing, fixing in position and jointing 150 mm dia., M.S./C.I. flanged Dismantling Joint, PN-1.0.			Number	
52	0.30	Providing, transporting, cutting, fabricating, welding, hoisting and erecting in position welded or bolted structural steel work with tubular sections using ERW tubes of various diameters erecting using devices like derricks, cranes or any other suitable guys etc. and final bolting, welding, testing as may be required including two coats of red oxide zinc crome paint and two coats of synthetic super enamel paint of approved colour & shade all material & labour complete.			Metric Tonne	
53	8.00	Providing 150 mm dia - 15 mm thick, M.S. Slipon Flanges at departmental store or work site, finished smoothly on one side including drilling of holes as per B.S. Table or IS: 1537-1976 including cost of MS plates.			Number	
54	500.00	Jointing of 150 mm dia., M. S. Flanged pipes or specials of any thickness including all jointing materials such as nuts, bolts, rubber gasket, zinc packing, labour required and satisfactory hydraulic testing etc. complete.			kilogram	
55	1.00	3 Ton capacity, triple spur gear Chain Pulley Block with 6 Mtrs. lift.			Number	
56	1.00	3 Ton capacity geared Travelling Trolley with 6 Mtrs. lift.			Number	
57	1.00	Rebate for old Pump Motor Panel Valves, Cables etc. Complete			Lumpsum	
Total Amount Rs :						0.00

Name Of Sub Estimate : Testing

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
1	1.00	Testing Charges	3,37,680.00	Indian Rupee Three Lacs Thirty Seven Thousand Six Hundred Eighty Only	Job	3,37,680.00
Total Amount Rs :						3,37,680.00

Name Of Sub Estimate : Royalty

Amount And Rate In (Rs)						
Sr.No	Quantity	Item Description	Rate	Rate In Words	Unit	Amount
1	1.00	Royalty charges	59,16,847.00	Indian Rupee Fifty Nine Lacs Sixteen Thousand Eight Hundred Fourty Seven Only	Job	59,16,847.00
Total Amount Rs :						59,16,847.00

Signed By	: RAJESH SITARAMJI ZANZAD
Organisation Unit	: MIDC
Signed Date	: 05/06/2026