

Name of Work : Shifting of TPL's HT/LT poles & transformers obstructing the construction of proposed flyover bridge at Ranjnoli & Mankoli Junction on NH-3 at Bhivandi.

Estimated Cost : Rs. 1,50,75,888/-.

Note :

- 1) The tenderer is required to quote his rates on **Page No.44** only.

Issued to :

M/s. _____

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TENDER NOTICE (IN ENGLISH & MARATHI)

MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY**CHAPTER - I****DETAILED TENDER NOTICE AND GUIDELINES FOR
SUBMISSION OF TENDERER**

Percentage Rate (B-1) Tenders in sealed covers are invited by the Chief Engineer, Engineering Division, 5th floor, M.M.R.D.A. Building, Bandra Kurla Complex, Bandra (East), Mumbai - 400 051, for the work “**Shifting of TPL’s HT/LT poles & transformers obstructing the construction of proposed flyover bridge at Ranjnoli & Mankoli Junction on NH-3 at Bhivandi.**” from the licensed & registered electrical contractors with PWD in appropriate class.

1.1 Location of the work :

This work is to be carried at Ranjnoli & Mankoli Junction on NH-3 at Bhivandi.

1.2 Application for tender documents :

Completed blank tender documents can be obtained from the office of the Executive Engineer, Engineering Division, 5th floor, M.M.R.D.A. Building, Bandra - Kurla Complex, Bandra (East), Mumbai - 400 051, on any working day from **06/01/2014 to 20/01/2014** (both days inclusive) from 11:00 hrs. to 16:00 hrs. at the cost **Rs.20,000/- (Rupees Twenty Thousand Only)** per copy, non-refundable, in the form of **Demand Draft or Pay Order in favour of ‘MMRD Fund’**. No tender will be issued or received by post. The blank tender documents can also be downloaded from the MMRDA’s website. The cost of the blank tender form shall be paid in the form of demand draft or pay order in favour of “MMRD Fund” & shall enclosed in envelope No. I while submitting the tender documents.

1.3 Time limit for completion of work :

The work shall be completed in 06 (Six) months (including monsoon) period from the date of work order to proceed with the work.

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1.4 **Date & Place of Submission and Date of Opening :**

The sealed tenders complete in all respects must reach the office of the Executive Engineer, Engineering Division, 5th floor, M.M.R.D.A. Building, Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051 upto 13:00 hours on **22/01/2014**. The Bid will be opened by the Chief Engineer, Engineering Division or his authorized representative after 15:00 hours on the same day, if possible.

1.5 **Earnest Money and Security Deposit :**

Earnest Money for this work will be Rs.1,50,759/- and Security Deposit will be Rs.6,03,036/-.

1.6 **Details of Security Deposit :**

The successful tenderer shall have to pay a sum of Rs.6,03,036/- (Rupees Six Lakh Three Thousand Thirty Six only) towards Security Deposit. Initial Security Deposit of Rs.3,01,518/- (Rupees Three Lakh One Thousand Five Hundred Eighteen only) shall be payable by Demand Draft or in the form of Bank Guarantees of any Nationalized Bank situated in Mumbai acceptable to MMRDA. The balance Security Deposit of Rs.3,01,518/- (Rupees Three Lakh One Thousand Five Hundred Eighteen only) shall be recovered by deducting from Running Account Bills at the discretion of the Engineer-in-charge (at 5% of each Running Account Bill till the full Security Deposit is recovered) so that, the total Security Deposit equivalent to Rs.6,03,036/- (Rupees Six Lakh Three Thousand Thirty Six only) is made up and held by MMRDA. The amount of Security Deposit recovered from Bills will be permitted to convert in to the Bank Guarantee, if the contractor so desires, by application in writing.

1.6.b) The contractor shall be responsible to pay Stamp Duty as payable under Bombay Stamp Duty Act, 1978 for Deposit paid in form of Demand Draft / Bank Guarantee etc. and shall furnish a copy of challan having paid the same to Government. Failure to furnish within 3 months from the date of Work Order,

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the same will be covered at the rates in prevalence as per Stamp Duty Act from the bills and resubmitted to Government.

1.6.2 **Additional Security Deposit :**

Additional Security to be paid by the successful contractor towards unbalanced tender shall be calculated as follows :

No additional performance security towards unbalanced tenders will be due for the tender, if the quoted percentage is upto and inclusive of 10% below the cost put to tender.

If the tendered offer is anything more than 10% below compared to the cost put to tender, the tenderer shall have to pay additional security deposit in the form of Demand Draft depending upon the amount calculated as per formula given below.

Formula : - **Additional Security Deposit = $\frac{3 \times A \times \text{Estimated cost put to tender}}{100}$**

Where A = Percentage below quoted on estimated cost put to tender by the tenderer below 10%

Example :- i) If the tenderer desires to quote 25% below, then the Addl. Security Deposit on estimated cost put to tender say Rs.3,50,00,000/- shall be worked out as under :-

$$= \frac{3 \times (25 - 10) \times 3,50,00,000/-}{100}$$

$$= \text{Rs.1,57,50,000/-}$$

- ii) The Demand Draft of required amount as per above formula must be submitted by the tenderer only in the name of the same company under which he is quoting for the tender.
- iii) The Demand Draft is required to be submitted along with the tender document shall be submitted in sealed envelope No.2. **If the Demand Draft of requisite amount is not submitted, the tender will be treated as “Non – responsive” & rejected.**
- iv) At the time of opening of tenders, Demand Draft of Addl. Security Deposit of the lowest bidder will be deposited with MMRDA and

Demand Draft of Addl. Security Deposit of rest of bidders will be returned immediately on receipt of their request & if in future it is found that first lowest is non – responsive then reference will be made to second lowest to deposit Addl. Security Deposit in the form of Demand Draft in specified time period & second lowest tenderer shall submit Addl. Security Deposit in the form of Demand Draft within specified time period, Addl. Security Deposit of successful tenderer shall be refunded only after successful completion of works in all respects or on finalization of final bill, whichever is later.

The tenderer shall have to submit Additional Security Deposit in the form of Demand Draft only drawn on Nationalized / Scheduled Banks or Banks Promoted by All Indian Financial Institute payable at Mumbai.

The additional security deposit shall be released along with the final Bill on satisfactory completion of work.

1.7 **Details of Earnest Money :**

The Earnest Money shall have to be paid by Pay Order, Demand Draft payable to “**Mumbai Metropolitan Region Development Fund**” drawn on any Nationalised Bank or Scheduled Banks or Banks promoted by All India Financial Institutes issued by a branch in Mumbai. Tenders with no Earnest Money Deposit shall be summarily rejected. The Earnest Money of unsuccessful tenderers will be refunded on application after intimation regarding rejection sent to him or on expiry of validity period, whichever is earlier. In case of the successful tenderer, amount of the earnest money will be transferred towards part of the security deposit to be paid after the award of the work.

1.8 **Validity of Tender :**

One Hundred Twenty (120) days from the date of opening the tenders. During this period no tenderer shall be allowed to withdraw his tender.

1.9 All pages of tender documents accompanying tender shall be initialled at the lower left hand corner and signed wherever required in the tender papers by

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the tenderer or his authorised representative. All corrections, interpolations or erasing in the tender shall be attested by the tenderer or his authorised representative. No pages of the tender shall be removed or replaced.

1.10 **Revision or Amendment in Tender Document :**

The Competent Authority, may omit or suspend certain items of work, revise or amend the tender document. Such revisions or amendments or extension, if any, shall be communicated to all concerned by Hand delivery / by Registered Post / telephonically which will be issued at least 7 days reckoned from date of issue of such letters, before the due date of receipt of tender.

1.11 **Tender Rates :**

The contractor shall quote percentage above / below the estimated cost / rates both in words and figures in B-1 form at **Page No.: 44** only. No alterations in the form of tender, in the schedule of quantities or additions etc. shall be permitted. The contractor shall particularly note the units on which the rates are based. In case of difference between the percentage above / below written in figures and in words, the percentage above / below written in words shall be taken as correct. No. changes in unit shall be allowed. The rates quoted in Schedule 'B' are for finished and completed items and no extra amount for carting or transporting material, labour, etc. shall be paid unless specially so mentioned or provided for in tender. The rates are inclusive of all leads and lifts for all materials in the completed items and also include all taxes, rates, duties, royalties etc. including Works Contract Tax. No payment on this account will be made. The Works Contract Tax shall be deducted at source at the rate that will be in force from time to time.

1.12 **Summary rejection of tender :**

The tenders not accompanied with **Earnest Money Deposit** shall be summarily rejected. Similarly, if the tenderer proposes any alteration in or additions to the prescribed form of tender or reserves the right to decline to carry out any work in the tender document, or any conditions mentioned etc., his tender is liable to be rejected.

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1.13 The successful tenderer will have to sign an agreement as per MMRDA's rules. The necessary stamp fees, etc. required for completing the agreement will have to be borne by the tenderer.

1.14 The tenderer is requested to visit the site of the work and see for himself the site conditions regarding layout and all other matters, affecting the work before filling in the percentage above / below the estimated cost / rates. Submission of a tender by a tenderer implies that they had read these instructions and has made himself aware of the site conditions, scope of the work, conditions of contract and the MMRDA will not, therefore, pay any extra charges on any account, in case he finds later on to have misjudged the site conditions or specifications.

1.15 **The tender should be submitted in separate sealed Covers as under:**

Cover-A : One sealed cover should contain the following documents only.

- (i) Forwarding letter clearly indicating documents attached there.
- (ii) (a) Earnest money in the form of Demand Draft of Nationalized Bank or Scheduled Bank in Mumbai purchased in the name of '**MMRD Fund**'.
- (b) In case, the tender forms are downloaded from the website, a demand draft of Nationalized / Scheduled Bank for Rs.20,000/- payable in Mumbai towards the cost of Bank tender form.
- (c) The contractor shall have successfully completed at least one work amounting not less than 75% of the estimated cost or two works amounting not less than 50% of the estimated cost of shifting of 22KV HT or higher lines, transformers etc. for any Govt./Semi Govt. organization in any one year during last 3 years i.e. from 2010 – 2011 to 2012 – 2013. The certificate

shall be duly certified by the officer not below the rank of the Executive Engineer.

- (d) Average annual turnover during the last 3 financial years shall be at least 100% of cost put to tender.
- (iii) Solvency certificate from the Collector of the District within which the contractor resides or a banker's certificate of the contractor's financial stability.
- (iv) The contractor has to submit the valid Registration Certificate with PWD (Elect.), State Electricity Board, Electrical Contractor License, Work Contract Tax No. Certificate, Sales Tax Registration No. Certificate.

Cover-B: The other sealed cover should contain the tender set itself along with copy of forwarding letter and pre-bid minutes (CSD), if any.

- 1.16 If the authority on opening the first sealed cover (A) is satisfied with all the above conditions then only the other sealed cover (B) will be opened.
- 1.19 The Chief Engineer, Engineering Division, MMRDA shall be the Competent authority for accepting / rejecting the tender.
- 1.20 The tenderer will have to enter into regular agreement in form B-1 on the receipt of acceptance of the tender and shall abide by all the rules and regulations embodied therein and pay the initial security deposit as shown in the schedule, failing which the MMRDA shall be entitled to forfeit the full amount of earnest money deposited by the tenderer.
- 1.21 (1) The successful tenderer shall have to work in co-ordination and co-operation with any other contracting agencies appointed by the MMRDA to work simultaneously in the same or adjoining area. The decision of the MMRDA in case of any dispute between the different agencies appointed by the MMRDA shall be final and binding.

- (2) Income-tax, Works Contract Tax, VAT, Service Tax, Labour cess and any other central, state, local tax ordered by the competent authority at the rate in force during the progress of contract or the percentage that will be in force from time to time shall be recovered / deducted from the gross amount of the bill whether for major work or advance payment or secured advance.
 - (3) The Contractor shall have to make his own arrangement at no extra cost to the MMRDA for water supply, sanitation and electric supply etc. at the site of work.
 - (4) He contractor will keep the site office clean and hygienic throughout till work is completed in all respects.
 - (5) The detailed tender notice along with the subsequent corrigendum, addendum etc., shall form part of the tender document.
 - (6) If the contractor wishes to furnish the initial security deposit in Government Securities, endorsed to the Engineer or Bank Guarantee Bond, the validity period of such Bond shall be atleast twice the specified time provided in the tender or upto the defect liability period whichever is less.
- 1.22 (1) The Contractor shall furnish all tools plants, instruments, supervisory staff, labour, materials, any temporary works, consumables and everything necessary whether or not such items are specifically stated herein, for completion of the job in accordance with the specification requirements.
- (2) The Contractor shall carry out the necessary surveys of the site required for above work before starting the work and set out properly all lines and establish level for the work of de-silting.

- 1.23 The contractor shall familiarize himself with the site where he is expected to execute the work and quote his percentage above / below the estimated rates considering all the hurdles likely to face during execution.
- 1.24 Contractors shall take out necessary Insurance Policy / Policies so as to provide adequate insurance cover for execution of the awarded contract work from the "Directorate of Insurance, Maharashtra State, Mumbai 400051" only. It's postal address for correspondence is "264, MHADA, Opp. Kalanagar, Bandra (E), Mumbai 400 051, (Tel.No.: 6438403 / 6438690, (Fax) 643 8461) . Insurance Policy / Policies taken out from any other Insurance Company will not be accepted.
- 1.25 The EMD / Security Deposit / Bank Guarantee etc. Shall be from Nationalised Bank or Bank promoted by All India Financial Institute drawn in favour of 'MMRD Fund' or as acceptable to MMRDA.
- 1.26 Joint venture shall not be allowed.

CHAPTER - II**REVISED MODEL FORM OF BANK GUARANTEE BOND****GUARANTEE BOND FOR SECURITY DEPOSIT**

1. In Consideration of the Mumbai Metropolitan Region Development Authority having its office at Bandra-Kurla Complex, Bandra (East), Mumbai - 400 051 (hereinafter called "the MMRDA") having agreed to exempt _____ (hereinafter called "the said contractor(s)") from the demand, under the terms and conditions of an Agreement dated _____ made between the Executive Engineer, Engineering Division, MMRDA and _____ for _____ (hereinafter called "the said Agreement"), of security deposit for the due fulfillment by the said contractor(s) of the terms and conditions contained the said Agreement, on production of a Bank Guarantee for ` _____/- (Rupees _____).
We, _____, (hereinafter referred to as "the Bank") at the request of _____ (Contractor(s) do hereby undertake to pay to the MMRDA an amount not exceeding ` _____/- against any loss or damage caused to or suffered or would be caused to or suffered by the MMRDA by reasons of any breach by the said contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We, _____ (indicate name of the bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the MMRDA stating that the amount claimed is due by way of loss or damage to or would be caused to or suffered by the MMRDA by reason of breach by the said contractor (s) of any of the terms or conditions contained in the

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said Agreement or by reasons of the contractor(s) failure or repudiation to perform the said Agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding ` _____/-.

3. We undertake to pay the MMRDA any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under these presents being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the contractor(s) shall have no claim against us for making such payment.

4. We, _____ (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the MMRDA under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the Superintending Engineer, Engineering Division of MMRDA _____ (indicate the name of Administrative Department) certified that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all liability under this guarantee thereafter.
5. We, _____ (indicate the name of Bank) further agree with the MMRDA that the MMRDA shall have the fullest liberty without our consent and without affecting in any manner our

obligation hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time for from time to time any of the powers exercisable by the MMRDA against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reasons of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or commission on the part of the M.M.R.D.A or any indulgence by the M.M.R.D.A to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s) / Supplier(s).

7. We, _____
(indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency.

Dated _____ Day of _____ 2014.

For _____

(Indicate the name of the Bank)

CHAPTER - III**DETAILS TO BE SUBMITTED BY TENDERER****APPENDIX-‘A’**

Particulars of the Tenderer.

Name and address of the Tenderer : _____

Previous experience in execution of similar works :

Sr. No.	Name of work executed / in hand	Department	Value of work	Date of completion/ present state	Remarks
1	2	3	4	5	6

Note : True copies of testimonials may be attached, but will not be returned.

(Signature of Tenderer)

Address

Place : _____

Date : _____

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DETAILS OF WORKS TENDERED FOR AND IN HAND AS ON THE
DATE OF SUBMISSION OF THIS TENDER

NAME OF THE TENDERER : _____

Sr. No	Name of work	Place	Work in hand			Work tendered for			Remarks
			Tender cost	Cost of remaining work	Anticipated date of completion	Estimated cost	Date on which decision is expected	Stipulated date on period of completion	
1	2	3	4	5	6	7	8	9	10

Signature of contractor

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DETAILS OF MACHINERY

NOTE: INFORMATION ABOUT MACHINERY OWNED BY CONTRACTOR AND OTHER MACHINERY SHALL BE SHOWN SEPARATELY

NAME OF THE TENDERER : _____

NAME OF WORK : _____

Sr. No.	Name of Equipment	No. of Units	Kind or make	Capacity	Age and condition	Present Location	Remark
1	2	3	4	5	6	7	8

Signature of contractor

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LIST OF TECHNICAL PERSONNEL OF THE TENDERER
LIKELY TO BE APPOINTED ON THIS WORK

NAME OF THE TENDERER : _____

Sr. No.	Name of Person	Designation / Post held / Status Kind or make capacity	Academic qualifications and experience	Remarks (any other points)
1	2	3	4	5

Signature of contractor

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CHAPTER - IV**GENERAL CONDITIONS****1. INTRODUCTION**

The specifications included in the tender follow the corresponding standards of the P.W.D., MOST and MCGM. The system of recording, measurements and payments will be based on the P.W.D. practice in vogue.

2. It is presumed that the contractor has gone carefully and thoroughly through the standard and special specifications of the individual items and studied the site conditions before arriving at the percentage above / below the estimated rates quoted by him.
3. Special provisions in the detailed specifications or wording of any item shall give precedence over the corresponding contract provisions, if any, in the standard specifications of the PWD, MOST or the MCGM. In case of any contradictions in the specifications, the interpretation and decision of the Engineer-in-charge shall be final & binding.
4. In all cases of errors, omissions or doubts or discrepancies in dimensions or description in drawings or in specifications etc., a reference shall be made by the contractor to the Engineer- in- charge, whose elucidations, elaborations or decisions shall be treated as authentic and final and contractor shall be liable to be held responsible for any errors or omissions arising out of his not referring the doubts in advance to the Engineer-in-charge for clarifications.
5. If the contractor has any doubts, whatsoever, as to the contents of the contract he shall in good time i.e. before submitting his tender, get his doubts clarified authoritatively from the Executive Engineer in writing.

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Once the tender is submitted by him the matter will be decided according to the tender stipulations in the absence of such authentic pre-clarifications from the Engineer-in-charge and contractor shall in that case be bound by the decisions of the Executive Engineer.

6. All the items and their rates in Schedule - B of the tender are for completed items of work and no extra claims shall be accepted as regards specifications, labour, materials, all taxes (Sales Tax, Works Contract Tax, VAT, Labour cess etc.), royalties, and any other charges etc.
7. The contractor shall have to make his own arrangements if he requires any land for his store at work place.
8. The contractor shall have to make his own arrangements for procuring all materials and machinery required for the work and adopts necessary safety measures for protection of men and materials and nearby MMRDA / Public or private properties against any accidental damages to life or property arising out of activities on his work.
9. The successful bidder shall have to chalk out a programme for execution of the work with reference to the time limit stipulated for completion of the work and furnish the same in the form it is asked for by the Engineer-in-charge as soon as he received work order. Review of progress achieved with reference to the approved programme shall be taken by the Engineer-in-charge at regular intervals and shortfall if any shall be made good by the contractor within the allowable period by accelerating his progress to bring it as per with the approved programme. The contractor shall update this programme from time to time as and when called upon to do so, failing which the same shall be drawn up by the Engineer-in-charge and shall be enforced by him and no representation in that case shall be entertained from the contractor. If specifically asked for, the

Contractors shall have to submit his programme in the form of C.P.M. / PERT network.

10. Materials which are not approved shall not be allowed to be brought on site. Materials once brought to the site shall not be allowed to be removed from the site without the prior approval of the Engineer-in-charge.
11. The several documents forming the contract shall be taken as mutually complimentary to each other. Detailed working drawings shall gain preference over small scale drawings, written dimensions shall be in preference to the scaled dimensions and specific conditions shall be in preference to the general conditions. Any errors or omissions in descriptions, quantity or rate shall neither vitiate the contract nor absolve the contractor of his obligation under the contract from the responsibility of executing the work either in part or in whole.
12. In case of any error in giving reference to the standard specifications of the P.W.D., MOST M.C.G.M. etc. like reference to correct specifications numbers, or pages etc. the contractor shall be bound to carry out the work in accordance with the correct and relevant specifications of the standard specifications including any subsequent revision of the standard specifications by the P.W.D., MOST, M.C.G.M, Indian Railways or as directed by the Engineer-in-charge.
13. The Contractor shall permit the Engineer-in-charge or his representative to inspect whenever required, the stock of controlled materials, provided such materials are supplied to him from the MMRDA stores.
14. All materials used in the construction of the work shall be of the best and approved quality only as per the relevant Indian Standard Specifications. Samples of all the materials as ordered by the Engineer-in-charge shall be kept in his office for check and proper control towards the use of such materials. The Engineer-in-charge shall have the right to ask the

contractor to rest the materials brought by him before using them on the work from an approved Engineering Institute and also to carry out insitu or laboratory tests of the materials before / after their use in the work. Testing charges including conveyance of materials to laboratories for all such tests shall be borne by the contractor. If the materials are found sub-standard or giving sub-standard test results, such materials shall be rejected and shall be removed forthwith from the site by the contractor at his own cost as directed by the Engineer-in-charge.

15. If during the course of execution of work the MMRDA considers it necessary to provide some additional fixtures / installations in the work, which are not included in any of the tender items, like providing conduits , pipes, etc. which will require only marginal quantum of additional labour for the contractor for placing such material in position, shall be so fixed in the work by the contractor at no extra costs, provided such materials are supplied free of cost at the place of work by the MMRDA.

16. On receipt of the work order, the contractor's authorized site Engineer shall immediately start operations like clearing the site, constructing approach road to site and take up lining out of the work under the directions of the Engineer-in-charge and shall provide all the necessary materials, labour, tools, instruments, as required for the purposes of field surveys. The lining out shall be done accurately and it shall be the responsibility of the contractor for the correctness of the locations, lines, levels, dimensions and alignments etc. of all the component parts of the work. If at any time during the course of the execution, any error is noticed, the same should be got rectified by the contractor at his own cost. Checking by the departmental staff shall not absolve in any way responsibility of the contractor in this respect. The contractor shall establish, protect and preserve all the mangrove plants, level pillars, bench marks, pegs etc. at site as per the directions of the Engineer-in-charge till such time as they are required for the work.

17. The Contractor shall construct and maintain suitable inspection pathways within the limits of the work at his own cost as directed by the Engineer-in-charge.
18. The Engineer-in-charge shall have full rights to ask for any additions or deletions in the supervisory staff and labour force of the contractor and this should be done immediately by the contractor to his full satisfaction. The contractor shall regularly submit to the Engineer-in-charge weekly reports of the people employed on his work and medical reports etc. Reports on accidents should be submitted within 24 hours.
19. Work Order Book shall be maintained on site and it shall be the property of the MMRDA. The contractor shall promptly sign the orders written in it by the Engineer-in-charge or his authorized representative or his superior officers and comply with the same promptly and correctly.

The contractor should report compliance of all such orders recorded in the Work Order Book from time to time to the Engineer-in-charge for his verifications. First carbon copy of the extract from the Work Order Book shall be supplied to the contractor as soon as the entry is made in it by the officers of the MMRDA. The contractor should sign in this Work Order Book to acknowledge receipt of his copy.

20. **Initial measurement for record :**

Where for proper measurement of the work, it is necessary to have an initial set of levels or other measurements taken, the same as recorded in the authorized field book, measurement book of the MMRDA, by the Engineer-in-charge or his authorized representatives and will be signed by the contractor or his authorized representative who will be entitled to have a true copy of the same made at his cost. Any failure on the part of the contractor to get such levels etc. recorded before starting the work will render him liable to accept the decision of the Engineer-in-charge as

to the basis of taking measurements. Likewise the contractor will not cover any work which will render its subsequent measurements difficult or impossible, without first getting the same jointly measured by himself and the Authorized representative of the Engineer-in-charge. The record of such measurements on behalf of the MMRDA will be signed by the Engineer-in-charge or his representative and the contractor and he will be entitled to have a true copy of the same made at his cost.

The contractor can have copies of the measurements as stated in the paragraph above and of the bills paid to him at his own cost and at his own responsibility to do so by attending the MMRDA office. He or his agent may copy down the same in consultation with the Officer concerned.

21. The contractor shall engage an authorized and full time qualified technical representative on the work capable of managing and guiding the work and understanding all the specifications and contract conditions who will take orders as shall be given by the Engineer-in-charge or his representative from time to time and shall be responsible for carrying out the work promptly and correctly. His technical representative should be posted at the site with prior approval of the Engineer-in-charge and should not be removed from the site without his prior approval.

22. **Treasure Trove :**

In the event of discovery by the contractor or his employees during the progress of the works of any treasure, fossils, minerals or any articles of value of interest, the contractor shall give immediate information thereof to the Engineer-in-charge and forthwith hand over to the Engineer-in-charge such treasure or things which shall be the property of the MMRDA and shall not be removed by the contractor under any circumstances.

23. **Permits and Licenses :**

The contractor shall procure at his own expenses all permits and licenses comply with rules and regulations laid down by the concerned authority and pay all charges, fees and give all notices necessary and pay all dues in connection with lawful execution of the work.

24. **Patented Devices, Materials and Processes :**

Whenever the contractor desires to use any designed devices, materials or processes covered by letter of Patent or Copy Right, the right for such use shall be secured by suitable legal arrangement with the patent owners and the copy of their agreement shall be supplied to the Engineer-in-charge if so desired by him. It shall be the responsibility of the contractor to observe all legal formalities for use of such patents and consequences, if any, due to failure on his part to do so shall be the sole responsibility of the contractor.

25. **Indemnity :**

The contractor shall indemnify the MMRDA against all actions, suits, claims, damages and demands brought or made against him in respect of anything done or omitted to be done by the contractor in execution of or in connection with the work of this contract and against any loss or damage to the MMRDA in consequences of any action or suit being brought against the contractor for anything done or omitted to be done in execution of the work of this contract.

CHAPTER - V**ADDITIONAL GENERAL CONDITIONS AND SPECIFICATIONS**

1. These are to apply as additional specifications and conditions, unless otherwise already provided for contrary elsewhere in this contract.

2. **DEFINITIONS :-**

Unless excluded by or repugnant to the context.

- (a) The expression "Government" as used in the tender papers shall mean the MMRDA.
- (b) The expression MMRDA as used in the tender papers shall mean the Mumbai Metropolitan Region Development Authority.
- (c) The expression "Chief Engineer, Engineering Division" as used anywhere in the tender papers shall mean Chief Engineer of MMRDA and shall mean Engineer-in-charge for the work at the time being.
- (d) The expression "Superintending Engineer as used in the tender papers shall mean an officer of Superintending Engineer's rank (by whatever designation he may be known) under whose control the work lies for the time being.
- (f) The expression "Executive Engineer" as used in the tender papers shall mean the Executive Engineer, MMRDA of the work.

- (g) The expression "Contractor" used in the tender papers shall mean the successful tenderer whose tender has been accepted, and who has been authorized to proceed with the work.
- (h) The expression "Contract" as used in the tender papers shall mean the deed to contract together with its original accompaniment and those latter incorporated in it by mutual consent.
- (i) "Drawings" shall mean the drawings referred to in the specifications and any modifications of such drawings approved in writing by Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer.
- (j) "Engineer's representative" shall mean an assistant of the Engineer notified in writing to the contractor by the Engineer.
- (k) 'Provisional sum' or 'Provisional lump sum' shall mean lump sum included by MMRDA in tender documents and shall represent the estimated value of work for which details are not available at the time of issue of tender.
- (l) The 'site' shall mean the lands and/or other places, on under, in or through which the work is to be executed under the contract including any other lands or places which may be allotted by MMRDA or used for the purpose of contract.
- (m) The 'Work' shall mean the works to be executed in accordance with the Contract or part(s) thereof as the case may be and shall include all extra or additional, altered or substituted works as required for performance of the Contract.

- (n) The “Contract sum” shall mean the sum for which the tender is accepted.
- (o) The “Accepting Authority” shall mean the Competent Authority to accept the tender.
- (p) The “Day” shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked in any day in that week.
- (q) “Temporary works” shall mean all temporary works of every kind required in or about the execution, completion, or maintenance of the works.
- (r) “Urgent works” shall mean any measure which, in the opinion of the Engineer-in-charge, become necessary during the progress of the works to obviate any risk or accident or failure or which become necessary for security of the work or the persons working, thereon.

Where the context so requires, words importing the singular only also include the plural and vice-versa.

Heading and marginal notes, if any, to the general conditions shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof of the contract.

3.1 **PROGRAMME OF WORK :-**

The work is required to be completed within a period of 06 (Six) months (including the monsoon period) from the date of work order to start the work.

3.2 CONSTRUCTION EQUIPMENTS :

The contractor shall be required to give a trial run of the equipments for establishing their capability to achieve the laid down specifications and tolerance to the satisfaction of the Engineer before commencement of the work. All equipment provided shall be of proven efficiency and shall be operated and maintained at all times, in a manner acceptable to the Engineer and no equipment or personal will be removed from site without permission of the Engineer.

4. RESPONSIBILITIES FOR LEVEL AND ALIGNMENT :

The contractor shall be entirely and exclusively responsible for the horizontal alignment, the levels and correctness of every part of the work and shall rectify effectually any errors or imperfections therein, such rectifications shall be carried out by the contractor, at his own cost, when instructions are issued to that effect by the Engineer-in-charge.

5. DAMAGE BY FLOODS OR ACCIDENTS :

The contractor shall take all precautions against damage by floods or like or from accident etc. No compensation will be allowed to the Contractor on this account or for correcting and repairing any such damage to the work during construction. The contractor shall be liable to make good at his cost any plant or materials belonging to the M.M.R.D.A. lost or damaged by floods or from any other cause which is in his charge.

6. POLICE PROTECTION :

For the Special Protection of camp and of the contractor's work, the MMRDA will help the contractor as far as possible to arrange for such protection with the concerned authorities; if so required by the Contractor

in writing. The full cost of such protection shall be borne by the contractor.

7. **TRAFFIC REGULATION FOR ROAD WORKS :**

7.1 Unless separately provided for in the contract, the Contractor shall have to make all necessary arrangements for regulating traffic, day and night during the period of construction to the entire satisfaction of the Engineer. This includes the construction and maintenance to diversion if necessary. The contractor shall have to provide necessary caution boards, barricades, flags, lights and watchmen etc., so as to comply with the latest Motor Vehicles rules and regulation and for traffic safety and he shall be responsible for all claims from accidents which may arise due to his negligence whether in regulating the traffic or in stacking materials on the roads, or due to any other reason.

7.2 The contractor shall at all times carry out the work on the road in a manner creating least interference to the flow of traffic, while consistent with the satisfactory execution of the same. For all works involving improvements to the existing road, the contractor shall, in accordance with the directives of the Engineer-in-charge, provide and maintain, during the execution of work a passage for traffic, either along or part of the existing carriageway under improvement or along a temporary diversion constructed close to the road.

8. **MEDICAL AND SANITARY ARRANGEMENTS TO BE PROVIDED FOR LABOUR EMPLOYED IN THE CONSTRUCTION BY THE CONTRACTOR :**

a) The contractor shall provide an adequate supply of potable water for the use of labourers on work and in Camps.

- b) The contractor shall construct trench or semi permanent latrines for the use of the labourers. Separate latrines shall be provided for men and women.
- c) The contractor shall build sufficient number of huts on a suitable plot of land for use of the Labourers according to the following specifications :
1. Huts of Bamboos and Grass may be constructed.
 2. A good site not liable to submergence shall be selected on high ground remote from jungle but well provided with trees, shall be chosen wherever it is available. The neighbourhood of tank, jungle, grass or woods should be particularly avoided. Camps should not be established close to large cuttings of earth work.
 3. The lines of huts shall have open space of at least ten yards between rows. When a good natural site cannot be produced, particular attention should be given to the drainage.
 4. There should be no overcrowding. Floor space at the rate of 30 sq.ft. per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.
 5. The Contractor must find his own land and if he wants M.M.R.D.A. land, he should apply for it and pay assessment for it, if made available by M.M.R.D.A.
 6. The contractor shall construct a sufficient number of bathing places. Washing places should also be provided for the purpose of washing clothes.

7. The Contractor shall make sufficient arrangements for draining away the surface and sullage water as well as water from the bathing and washing places and shall dispose of this waste water in such way as not to cause any nuisance.
- d) The contractor shall engage a Medical Officer with a travelling dispensary for a Camp containing 500 or more persons if there is no Government or other private dispensary situated within 8 kilometers from the Camp. In case of emergency the contractor shall arrange at his cost for transport for quick medical help to his sick worker.
- e) The Contractor shall provide the necessary staff for effecting a satisfactory drainage system and cleanliness of the camp to the satisfaction of the Engineer. At least one sweeper per 200 persons should be engaged.
- f) The Assistant Director of Public Health shall be consulted before opening a labour camp and his instruction on matters such as water supply, sanitary conveniences, the camp site accommodation and food supply shall be allowed by the Contractor.
- g) The contractor shall make arrangements at his cost for all anti-malaria measures to be provided for the labour employed on the work. The anti-malaria measure shall be provided as directed by the Assistant Director of Public Health or MCGM directives.

CHAPTER - VI

CONTRACT AGREEMENT

MUMBAI METROPOLITAN REGION DEVELOPMENT AUTHORITY

THESE ARTICLES OF AGREEMENT made at Mumbai this _____ day of _____ Two Thousand _____ between the “Mumbai Metropolitan Region Development Authority” constituted and established under section 3 of the “Mumbai Metropolitan Region Development Act, 1974” and having its principal office on 5th Floor, MMRDA office Building, Plot Nos.C-14/15, Near Drive-in-theatre, ‘E’ Block, of BKC, Bandra (East), Mumbai - 400 051 hereinafter called “the Authority” (which expression shall unless the context does not admit, include its successor or successors and assign or assigns) of the one part and Shri _____ Indian inhabitant and being Proprietor of the Company carrying on business of Electrical Engineers and Contractors in the name and style of _____ and having their office at _____

_____ hereinafter called collectively “the Contractor” (which expression shall unless the context does not admit, included their respective heirs, administrators, executors and surviving partner or partners) of the other part.

WHEREAS the Authority invited by its public advertisement No.:ED/ _____, published in the _____ (at the State level) dated _____ public tenders for the execution of works referred to there in and more particularly described in the tender documents constituted in the Tender Notice, General Tender Notice, Instructions to the Tenderers, General Conditions of contract, Specifications, Technical Report, Schedule of Quantities of work and other allied documents.

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AND WHEREAS the contractor submitted his tender dated _____ for a sum of ` _____/-.

AND WHEREAS in exercise of its powers under Clause (IV) of sub-section (2) Section 6 of the Mumbai Metropolitan Region Development Authority Act, 1974, as amended upto-date. The Executive Committee of the Authority approved of the said tender of the contractor being accepted subject to the following terms and conditions.

AND WHEREAS the parties hereto are desirous of recording the Agreement so concluded between them which they do hereinafter.

NOW THIS AGREEMENT WITNESSES AS FOLLOWS :

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the conditions of the contract herein referred to.
2. The following documents shall be deemed to form and be read and construed as a part of this Agreement, and the priority of the documents shall be as follows :
 - (a) The Letter of Acceptance;
 - (b) The said Bid and Appendix to Bid;
 - (c) The Conditions of Contract (Part-II);
 - (d) The Conditions of Contract (Part-I);
 - (e) The Specifications;
 - (f) The Drawings;
 - (g) The Priced Bill of Quantities; and
 - (h) Other documents, as listed in the Appendix to Bid;
 - (i) Agreed Constructive Plan / Methods / Environmental Management Plan.

- 3. 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 execute and complete the Works and remedy and defects therein conformity in all respects with the provisions of the Contract.
- 4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed the day and year first before written :

SIGNED AND DELIVERED FOR AND ON)
 BEHALF OF MUMBAI METROPOLITAN)
 REGION DEVELOPMENT AUTHORITY BY)
 Engineer pursuant to approval dated _____) Signature
 of the Authority.) Designation

In the presence of :
 (1)
 (2)

SIGNED AND DELIVERED FOR AND)
 ON BEHALF OF THE CONTRACTOR BY)
 Shri _____) Signature
 by the proprietor pursuant to Authority of their) Designation
 Proprietorship)

In the presence of :
 (1)
 (2)

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CHAPTER - VII**DECLARATION OF THE CONTRACTOR (S)**

I / We hereby declare that I / We have made myself thoroughly conversant with the local site conditions regarding all materials, such as stones, murum and sand and labour on which I/ We have based my rates for this tender. The specifications and lead on this work have been carefully studied and understood by me before submitting the tender. I / We undertake to use only the best materials and method proposed to employ duly approved by the Executive Engineer, Engineering Division, MMRDA, Mumbai or and to abide by his decision.

Signature of Contractor**Executive Engineer**

Engineering Division

M.M.R.D.A., Mumbai

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CHAPTER – VIII (a)**FORM B-1****MMRDA, MUMBAI**

Percentage Rate Tender and Contract for Works

General Rules and Directions for the Guidance of Contractor

1. All works proposed to be executed by Contractor shall be notified in a form of invitation to tender pasted on a board hung up in the office of the Executive Engineer and signed by the Executive Engineer.

This form will state the work to be carried out as well as the date for submitting and opening tenders, and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. It will also state whether a refund of quarry fees, royalties, octroi dues and ground rents will be granted. Copies of the specifications, designs and drawings and estimated rates, scheduled rates and any other documents required in connection with the work shall be signed by the Executive Engineer for the purpose of identification shall also be open for inspection by contractors at the office of the Executive Engineer during office hours.

Where the works are proposed, to be executed according to the specifications recommended by a contractor and approved by a competent authority on behalf of the MMRDA such specifications with designs and drawings shall form part of the accepted tender.

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2. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof, or in the event of the absence of any partner, it shall be signed on his behalf by a person holding a power of attorney authorizing him to do so.
 - i) The contractor should pay along with the Tender Rs.1,50,759/- (Rupees One Lakh Fifty Thousand Seven Hundred Fifty Nine Only) by Demand Draft as and by way of Earnest Money, which the contractor shall forward along with his tender. The said amount of earnest money shall not carry any interest whatsoever.
 - ii) In the event of his Tender being accepted subject to the provisions of sub-clause (iii) below the said amount of bid security shall be appropriated towards the amount of Security Deposit payable by him under condition of General Conditions of contract.
 - iii) If, after submitting the tender, the contractor withdraws his offer, or modifies the same, or if after the acceptance of his tender the contractor fails or neglects to furnish the balance of Security Deposit, within 10 days from the date of letter of intent without prejudice to any other rights and powers of the M.M.R.D.A. hereunder or in law, MMRDA shall be entitled to forfeit the full amount of the earnest money deposited by him. Please see Clause 1 of conditions of contract.
 - iv) In the event of this tender not being accepted, the amount of earnest money deposited by the contractor shall unless it is prior thereto forfeited under the provisions of sub-clause (iii) above, be refunded to him on his passing receipt thereof.
3. Receipts for payments made on account of any work, when executed by a firm shall also be signed by all the partners except where the contractors are described in their tender as a firm in which case the receipt shall be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.

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4. Any person who submits a tender shall fill up the usual printed form, stating at what percentage above / below the estimated rates for the items specified in Schedule 'B' (Memorandum showing items of work to be carried out) shall be named in figures as well as in words. Tenders which propose any alteration in the works specified in the said form of invitation to 'tender' or in the time allowed for carrying out the work, or which contain any other conditions, will be liable to rejection.
5. The Chief Engineer, Engineering Division or his duly authorised Assistant shall open tenders in the presence of contractors who have submitted tenders or their authorised representatives who may be present at the time and he will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted the contractor shall, for the purpose of identification, sign copies of the specifications and other documents mentioned in Rule 1. In the event of tender being rejected the Executive Engineer shall authorise the Accounts Office concerned to refund the amount of the earnest money deposited to the contractor taking the tender, on his giving a receipt for the return of the money.
6. The officer competent to dispose of the tenders shall have the right of rejecting all or any of the tenders.
7. No receipt for any payment alleged to have been made by a contractor in regard to any matter relating to this tender or the contract shall be valid and binding on MMRDA unless it is signed by the Chief Engineer.
8. The memorandum of work to be tendered for and the Schedule of materials to be supplied by the MMRDA and their rates shall be filled in and completed by the office of Executive Engineer before the tender form is issued. If a form issued to an intending tenderer has not been so filled

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in and completed he shall request the said office to have this done before he completes and delivers his tender.

9. All work shall be measured out by the standard measure and according to the rules and customs of the MMRDA and their rates shall be subject to any local customs.
10. Under no circumstances shall any contractor be entitled to claim enhanced rates for any items in this contract.
11. All corrections and additions or pasted slips should be initiated.
12. The measurements of work will be taken according to the usual method in use in the MMRDA and no proposals to adopt alternative methods will be accepted. The Executive Engineer's decision as to what is "The usual method in use in the MMRDA" will be final.
13. The tendering contractor shall furnish a declaration along with the tender showing all works for which he has already entered into contract, and the value of the work that remains to be executed in each case on the date of submitting the tender.
14. Every tenderer shall submit along with the tender information regarding the Income-tax clearance of ward or the district in which he is assessed for income-tax, the reference to the number of the assessment and the assessment year.
15. In view of the difficult position regarding the availability of foreign exchange no foreign exchange would be released by the MMRDA for the purchase of plant and machinery required for the execution of the work contracted for.

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16. The contractor will have to construct shed for storing controlled and valuable materials viz. timber paint, cement etc. at work site, having double locking arrangement. The materials will then be taken for use in the presence of MMRDA's person. No materials will be allowed to be removed for the site of works.
17. The contractor shall also give a list of machinery in their possession and which they propose to use on the work.
18. Contractor should produce original license / attested copy of license duly attested by a Gazetted Officer, having registered with the Assistant Commissioner of Labour as required as per Contract Labour (Regulation and Abolition) Act, 1970 and Maharashtra Contract Labour (Regulation and Abolition) Rules, 1970.
19. Contractor should produce an year-wise list of works carried out during the last 3 Financial years.
20. The contractor shall produce true copies of registration certificate of appropriate class including its validity.

TENDER FOR WORKS

I / We agree that this offer shall remain open for minimum period of 120 (One Hundred & Twenty days) from that fixed for receiving the same and hereafter until it is withdrawn by me / us by notice in writing duly addressed to the Authority opening the tenders and sent by registered post A.D. or otherwise delivered at the office of such authority.

Schedule Bank D.D. No. _____ Date _____ issued by the Bank _____.

In respect of the sum of Rs.1,50,759/- (Rupees One Lakh Fifty Thousand Seven Hundred Fifty Nine Only) representing the Earnest Money Deposit is forwarded herewith.

The amount of bid security shall not bear interest and shall be liable to be forfeited to the MMRDA should I / We fail to (i) abide by the stipulation to keep the offer open for the period mentioned above or (ii) sign and complete the contract documents as required by the Engineer and furnish the Security deposit as specified in item (d) of the memorandum contained in paragraph 1 above within the time limit laid down in clause (i) of the Conditions of Contract. The amount of bid security may be adjusted towards the Security Deposit or refunded to me / us if so desired by me / us in writing, unless the same or any part thereof has been forfeited as aforesaid.

I / We have secured exemption from payment of Bid Security after executing the necessary bond in favour of the MMRDA, a true copy of which is enclosed herewith. Should any occasion for forfeit of bid security for this work arise due to failure on my / our part to (i) abide by the stipulation to keep the offer open for the period mentioned above or (ii) sign and complete the contract documents and furnish the security deposit as specified in item (d) of the

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memorandum contained in paragraphs above within the time limit laid down in clause (I) of the Conditions of Contract, the amount payable by me / us may at the option of the Engineer be recovered out of the amount deposited in lump sum for securing exemption in so far as the same may be extended in terms of the deficiency out of any other moneys which are due or payable to me / us the MMRDA, under any other contract or transaction of any nature whatsoever or otherwise.

I / We hereby tender for the execution, for the Metropolitan Commissioner, MMRDA (hereinbefore and hereinafter referred to as 'MMRDA') of the work specified in the underwritten memorandum within the time specified in such memorandum at * _____

* In figures as well as in words.

_____ below / above the estimated rates entered in Schedule 'B' (Memorandum showing item of work to be carried out) and in accordance in all respects with the specification designs, drawings and instructions in writing referred to in Rule 1 hereof and in clause 12 of the annexed conditions of contract and agree that when materials for the work are provided by the MMRDA such materials and the rates to be paid for them shall be as provided in Schedule 'A' hereto.

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MEMORANDUM

(a) If several sub-works are included they should be detailed in a separate list.

Name of work : Shifting of TPL's HT/LT poles & transformers obstructing the construction of proposed flyover bridge at Ranjnoli & Mankoli Junction on NH-3 at Bhivandi.

(b) Estimated Cost Rs.1,50,75,888/-

(c) The amount of earnest money to be deposited shall be in accordance with the provisions of paras 206 & 207 of the MPW Manual.

(c) Earnest Money Rs.1,50,759/-

(d) This deposit shall be in accordance with paras 213 & 214 of the MPW Manual and as per stated in Clause 1.6.

(d) Security Deposit Rs.6,03,036/-

(i) Demand Draft or B.G. of any Nationalised Bank while accepting of tender.

(not less than the amount of earnest money)

(ii) To be deducted from Running Account Bills. Rs.3,01,518/-

TOTAL : Rs6,03,036/-

=====

(d) Additional Security Deposit as per Clause 1.6.2

(e) This percentage where no security deposit is taken will vary from 5 percent to 10 percent according to the requirements of the case where security deposit is taken. See note to Clause 1 of Condition of Contract.

(e) Percentage if any to be deducted 5 (Five) percent from bills so as to make up the total amount required as Security Deposit by the time half the works, as measured by the costs, is done.

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f) Give schedule where necessary showing dates by which the various items are to be completed.

(f) Time allowed for the work from date : 06 (Six) months of written order to commence. including monsoon

Should this tender be accepted I/We hereby agree to abide by and fulfill all the terms, and provisions of the condition of contract annexed hereto so far as practicable, and in default thereof to forfeit and pay to MMRDA the sums of money mentioned in the said conditions.

Amount to be specified in words and figureogs

Receipt No. _____ dated _____ from the MMRDA Finance and Accounts Division in respect of the sum of

Strike out `.

(a) if no cash security deposit is to be taken.

is herewith forwarded representing the earnest money (a) the full value of which is to be absolutely forfeited to MMRDA should I/We not deposit the full amount of security deposit specified in the above memorandum, in accordance with Clause-I (A) of the said conditions, otherwise the said sum of Rs.6,03,036/- shall be refunded.

Signature of contractor before submission of tender

Contractor

Address

Dated the _____ day of _____ 2014

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Signature of witness of (Witness)
Contractor's signature.

(Address)

(Occupation)

The above tender is hereby accepted by me
for and on behalf of the Metropolitan
Commissioner, of MMRDA.

Signature of the Officer by
whom accepted.

**Chief Engineer,
Engineering Division
MMRDA**

(or his duly Authorised Assistant)

Dated day of 2014.

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CHAPTER – VIII (b)**CONDITIONS OF CONTRACT****Security
Deposit**

CLAUSE 1 : The person / persons whose tender may be accepted (hereinafter called "the contractor" which expression shall unless excluded by or repugnant to the context include his heirs, executors, administrators, and assigns) shall (A) within 10 days (which be extended by the Superintending Engineer concerned up to 15 days if he thinks fit to do so) of the receipt by him of the notifications of the acceptance of his tender, deposit with the Executive Engineer (if deposited for more than 12 months) of sum sufficient which will make up the full security deposit specified in the tender or (B) (Permit M.M.R.D.A. at the time of making any payment to him for work done under the contract to deduct such as will amount to five percent of all moneys so payable such deductions to be held by the MMRDA by way of security deposit) Provided always that in the event of the contractor depositing a lump sum by way of security deposit as contemplated at (A) above, then and in such case, if the sum so deposited shall not amount to four percent of the total estimated cost of the work, it shall be lawful for MMRDA at the time of making any payment to the contractor for work done under the contract to make up the full amount of two percent by deducting a sufficient sum from every such payment as last aforesaid until the full amount of the security deposit is made up. All compensation or other sums of money payable by the contractor to the MMRDA under the terms of his contract may be deducted from or paid by the sale of sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due or may become due by MMRDA to the contractor under any other contract or transaction of any nature on any account whatsoever and in the event of his security deposit being reduced by reason of any such

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deduction or sale as aforesaid, the contractor shall, within ten days thereafter, make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security referred to when paid in cash may, at the cost of the depositor, be converted into interest bearing securities provided that the depositor has expressly desired this in writing.

If the amount of the security deposit to be paid in a lumpsum within the period specified at (A) above is not paid, the tender / contract already accepted shall be considered as cancelled and legal steps taken against the contractor for recovery of the amounts. The amount of the security deposit lodged by a contractor shall be refunded along with the payment of the final bill, if the date up to which the contractor has agreed to maintain the work in good order is over. If such date is not over, only 50% amount of security deposit shall be refunded along with the payment of the final bill. The balance 50% amount of security deposit retained by the MMRDA shall be released after expiry of defect liability period. In the event of the contractor failing or neglecting to complete rectification work within the period up to which the contractor has agreed to maintain the work in good order then subject to provision of Clause 17 and 20 hereof the amount of Security Deposit retained by MMRDA shall be adjusted towards the excess cost incurred by the MMRDA on rectification work.

Compensation for delay

CLAUSE 2 : The time allowed for carrying out the work (including monsoon period) as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract be proceeded with all due diligence (time being deemed to be of the essence of the

contract on the part of the contractor) and the contractor shall pay as compensation and amount equal to one percent or such smaller amount as the Chief Engineer (whose decision in writing shall be final) may decide, of the amount of the estimated cost of the whole work as shown by the tender for every day that the work remain uncommenced, or unfinished, after the proper dates. And further to ensure good progress during the execution of the work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month to complete.

1/6 of the work in 1/4 of the time

1/2 of the work in 1/2 of the time

3/4 of the work in 3/4 of the time

Subject to what is stated in special conditions of the contract.

Note : The quantity of the work to be done within a particular time to be specified above shall be fixed and inserted in the blank space kept for the purpose by the Officer competent to accept the contracts after taking into consideration the circumstances of each case and abide by the programme of detailed progress laid down by the Chief Engineer.

In the event of the contractor failing to comply with this conditions he shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the Chief Engineer (Whose decision in writing shall be final) may decide of the said estimated cost the whole work for every day that the due quantity of work remains in complete. Provided always that the total amount of compensation to be paid under the provisions of this clause shall not exceed 10 percent of the estimated cost of the work as shown in the tender.

Action when whole of security deposit is forfeited.

CLAUSE 3 : In any case in which under any clause of this contract the contractor shall have rendered himself to pay compensation amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) or in case of abandonment of the work owing to serious illness or death of the contractor or any other

cause the Chief Engineer on behalf of the M.C. of MMRDA, shall have power to adopt any of the following courses as he may deem best suited to the interest of the M.M.R.D.A.

(a) To rescind the contract (for which decision notice in writing to the contractor under the hand of Chief Engineer shall be conclusive evidence) and in that case the Security Deposit of the contractor shall stand forfeited and be absolutely at the disposal of M.M.R.D.A.

(b) To carry out the work or any part of the work departmentally debiting the contractors with cost of the work, expenditure incurred on tools and plant and charges on additional supervisory staff including the cost of the work charges establishment employed for getting the unexecuted part of the work completed and crediting him with the value of the work done departmentally in all respects in the same manner and at the rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to the cost and other allied expenses so incurred and to the value of the work so done departmentally shall be final and conclusive as against the contractor.

(c) To order that the work of the contractor be measured up to date such part thereof as shall be unexecuted out of his hands and to give it to another contractor to complete in which case all expenses incurred on advertisement for fixing new contracting agency, additional supervisory staff including the cost of work charged establishment and cost of the work executed by the new contract agency will be debited to the contractor and the value of the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as per the value of the work so done be final and conclusive against the

contractor.

In case the contract shall be rescinded under Clause (a) above the contractor shall to be entitled to recover or be paid any sum for any work therefore actually performed by him under this contract unless the until the Executive Engineer shall have certified in writing the performance of such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified, in the event of either of the course referred to in Clause (b) or (c) being adopted and the cost of the work executed departmentally. Or, through a new contractor and other allied expenses exceeding the value of such work credited to the contractor, the amount of excess shall be deducted from any money due to the contractor by MMRDA under the contract or otherwise however for from his Security Deposit or the sale proceed thereof provided however the contractor shall have no claim against MMRDA even if certified cost of such work and allied expenses, provided a leassy that whichever of three courses mentioned in Clauses (a), (b) or (c) is adopted by the Executive Engineer, the contractor shall have no claim to compensation for any less sustained by him by reasons of his having purchased procured any materials or entered into any engagements or made any advances on account of or with a view to the execution of the work of the performance of the contract.

Action when the progress of any particular portion or the work is unsatisfactory

CLAUSE 4 : If the progress of any particulars portion of the work is unsatisfactory, the Executive Engineer shall notwithstanding that the general progress of the work is in accordance with the conditions mentioned in Clause 2, be entitled to take action under Clause 3 (b) after giving the contractor 10 days' notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.

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Contractor remains liable to pay compensation if action not taken under Clause 3 and 4.

Power take possession of required removal of or sale contractor's plant

CLAUSE 5 : In any case in which any of the powers conferred upon the Chief Engineer by Clause 3 and 4 here of shall have become exercisable and the same shall not constitute a waiver of any of the conditions here of and such powers shall notwithstanding be exercisable in the event any future case of default by the contractor for which under any clause of clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Chief Engineer taking action under sub-clause (a) or (c) of Clause 3, he may, if he so desires, take possession of all or any tools, land, materials and stores in or upon the work or the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates, to be certified by the Executive Engineer may, after giving notice in writing to the contractor or his clerk of the work, foreman or other authorised agent require him to remove such tools, plant, materials, or stores from the premises within a time to be specified in such notice and in the event of the contractor failing to comply with any such requisition the Executive Engineer may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects, and the certificate of the Executive Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such be final and conclusive against the contractor.

Extension of time

CLAUSE 6 : If the contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidably

hindered in its execution or on any other ground. He shall apply in writing to the Executive Engineer before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date of which he was hindered as aforesaid or on which the cause for asking for extension occurred, whichever is earlier and the Executive Engineer may, if in his opinion there was reasonable grounds for granting an extension, grant such extension as he thinks necessary or proper. The decision of the Executive Engineer in this matter be final.

**Final
Certificate**

CLAUSE 7 : On completion of the work the contractor shall be furnished with a certificate by the Executive Engineer (hereinafter called the Engineer-in-charge) of such completion but no such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall have been executed all scaffolding, surplus materials and rubbish, and shall have cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of any building, in or upon which the work has been executed, or of which he may hand possession for the purpose of executing the work, nor until the works shall have been measured by the Engineer-in-charge or where the measurement have been take by his subordinates until they have received the approval of the Engineer-in-charge, the said measurements being binding and conclusive against the contractor. If the contractor fails to comply with the requirements of this clause as to the removal of scaffolding, surplus materials and rubbish and cleaning of dirt on or before the date fixed for the completion of the work the Engineer-in-charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish, and dispose off the same as he thinks fit and clean off such dirt as aforesaid and the contractor shall forth with pay the amount of all expenses so incurred, but shall have no claim in respect of any such scaffolding

or surplus materials as aforesaid expect for any sum actually realized by the sale thereof.

Payments on intermediate certificates to be regarded as advances

CLAUSE 8 : No payment shall be made for any work, estimated to cost less than rupees one thousand till after the whole of the work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand, the contractor shall on submitting a monthly bill therefore, be entitled to receive payment proportionate to the part work then approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for works actually done and completed, and shall not preclude the Engineer-in-charge from requiring any bad, unsound, imperfect or unskillful work to be removed or taken away and reconstructed or re-erected, nor shall any such payment be considered as an admission of the date performance of the contract or any part thereof in any respect or the accruing of any claim, nor shall it conclude, determine, or affect in any other way the powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or effect the within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

Payment at reduced rates on account of items of work not

CLAUSE 9 : The rates for several items of works estimated to cost more than Rs.1,000 agreed within, shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the

accepted as completed to be at the discretion of Engineer-in-charge

items of work are not accepted as so completed the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on account bills.

Bill to be submitted monthly

CLAUSE 10 : A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all work executed in the previous month, and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified, and the claim, so far as it is admissible, shall be adjusted if possible within ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose counter signature to the measurement list shall be sufficient warrant, and the Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.

Bill to be on printed forms

CLAUSE 11 : The contractor shall submit all bills on the printed forms to be had on a application at the office of the Engineer-in-charge. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender, at the rates hereinafter provided for such work.

Store supplied by MMRDA

CLAUSE 12 : If the specification or estimate of the work provides for the use of any special description of materials to be supplied

from the store of the MMRDA or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge (such material and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the conveniences of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purposes of the contract only, and the value of the full quantity of the materials and stores so supplied shall be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract, or otherwise, or from the security deposit, or the proceeds of sale thereof if the security deposit is held in government securities the same or a sufficient portion thereof shall in that case be sold for the purpose. All materials supplied to the contractor shall remain the absolute property of MMRDA and shall on no account be removed from the site of the work, and shall at all times be open to inspection by the Engineer-in-charge. Any such materials unused and in perfectly good condition at the time of completion or determination of the contract shall be returned to the MMRDA store, if the Engineer-in-charge so requires by a notice in writing given under his hand but the contractor shall not be entitled to return any such materials except with consent of the Engineer-in-charge and he shall have no claim for compensation on account of any such material supplied to him as aforesaid but remaining unused by him or for any wastage in or damage to any such materials.

**Works to
be
executed in
accordance
with**

CLAUSE 13 : The contractor shall execute the whole and every part of the work of the most substantial and workman like manner and both as regards materials and in every other respect in strict accordance with specifications. The contractor shall also confirm

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**specifications,
drawings,
orders etc.**

exactly fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in this office to which the contractor shall be entitled to have access for the purposes of inspection such office or on the site of work during office hours. The contractor will be entitled to receive three sets of contract drawings as well as one certified copy of the accepted tender along with the work order free of cost. Further copies of the contract drawings and other working drawings if required by him shall be supplied at the Rs.100/- per set.

**Alternative
in
specification
and
designs
not to
invalidate
contracts.**

CLAUSE 14 : The Engineer-in-charge shall have power to make any alteration in or additions to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer-in-charge and such alteration shall not invalidate the contract and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work. And if the additional and altered work includes any class of work for which no rate is specified in this contract then such class of work shall be carried out at the rates entered in the Schedule of Rates of the Division or at the rates mutually agreed upon between the Engineer-in-charge and the contractor, whichever are lower, if the additional or altered work for which no rate is entered in Schedule of Rates of Division, is ordered to be carried out before the rates are agreed upon then the contractor shall, within seven days of the date of receipt by him of the order to carry out the work, inform the Engineer-in-charge of the rate which it is his intention to charge for

**Rates for
works not
entered in
estimate,
for
schedule of
rates of the
district.**

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such class of work, and if the Engineer-in-charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work, and arrange to carry it out in such manner as he may consider advisable, provided always that if the contractor shall commence work or incur any expenditure in regard thereto before the rates shall have been mentioned as lastly herein before mentioned, then in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate of rates as shall be fixed by the Engineer-in-charge. In the event of a dispute, the decision of the Superintending Engineer of the MMRDA will be final.

Where, however, the work is to be executed according to the designs, drawings and specifications recommended by the contractor and accepted by the competent authority the alterations above referred to shall be within the scope of such designs drawings and specifications appended to the tender.

The time limit for the completion of the work shall be extended in the proportion that the increase in its cost occasioned by alterations of additions bears to the cost of the original contract work, and the certificate of the Engineer-in-charge as to such proportion shall be conclusive.

Extensions of time in consequence of additions or alterations

No claim to any payment or

CLAUSE 15 : (1) If at any time after the execution of the contract documents, the Engineer shall for any reason whatsoever (other than default on the part of the contractor for which the MMRDA is entitled to rescind the contract) desire that the whole or any part of the work specified in the tender should be suspended for any period or that the whole part of the work should not be carried out at all he shall give to the contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith

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compensation for alteration in or restriction of work

suspend or stop the work wholly or in part as required, after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety thereof provided that the Engineer as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation whatsoever by reasons of or in pursuance of any notice as aforesaid, on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.

(2) Where the total suspension of the work ordered as aforesaid continued for a continuous period exceeding 90 days the contractor shall be at liberty to withdraw from the contractual obligation under the contract so far as it pertains to the un-executed part of the work by giving a 10 days prior notice in writing to the Engineer, within 30 days of the expiry of the said period of 90 days of such intention and requiring the Engineer to record the final measurements of the work already done and to pay the final bill. Upon giving such notice the contractor shall be deemed to have been discharged from his obligation to complete the remaining un-executed work under this contract. On receipt of such notice the Engineer shall proceed to complete the measurements and make such payment as may be finally due to the contractor within a period of 90 days from the receipt of such notice in respect of the work already done by the contractor. Such payment shall not in any manner prejudice the right of the contractor to any further compensation under the remaining provisions of this clause.

(3) Where the Engineer requires the contractor to suspend the work for a period in excess of 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days of the resumption of work such suspension of

payment of compensation to the extent of pecuniary loss suffered by him in respect of working machinery rendered idle on the site or on account of his having had to pay the salary or wages of labour engaged by him during the said period of suspension, provided always that the contractor shall not be entitled to any claim in respect.

(4) In the event of :-

(i) Any total stoppage of work on notice from the Engineer under sub-clause (1) in the behalf,

(ii) Withdrawal by the contractor from the contractual obligations to complete the remaining executed work under sub-clause (2) on account of continued suspension of work for a period exceeding 90 days.

(iii) Curtailment in the quantity of item or items originally tendered on account of any alteration, omission or substitutions in the specifications, drawings designs or instructions under clause 14 (1) where such curtailment exceeds 25% in quantity and the value of the quantity curtailed beyond 24 percent at the rates for the items specified in the tender is more than Rs.5,000/-.

No claim to compensation on account of loss due to delay of materials by MMRDA

It shall be open to the contractor, within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal from the contractual obligations under the contract account of the continued suspension of work or (iii) notice under Clause 14 (1) resulting in such curtailment to produce to the Engineer satisfactory documentary evidence that he had purchased or agreed to purchase materials for use in the contracted work, before receipt by him of the notice for stoppage, suspension or curtailment and required the MMRDA to take over on payment such materials at the rates determined by the Engineer. The MMRDA shall thereafter take over

the material so offered, provided the quantities offered are not in excess of the requirements of the un-executed work as specified in the accepted tender and are of quality and specification approved by the Engineer.

CLAUSE 15-A : The contractor shall not be entitled to claim any compensation from MMRDA for the loss suffered by him on account of delay by MMRDA in the supply of materials, entered in Schedule - A where such delay is caused by -

- (i) Difficulties relating to the supply of railway wagons.
- (ii) Force major
- (iii) Act of God.
- (iv) Act of enemies of the State of any other reasonable cause beyond the control of M.M.R.D.A.

In the case of such delay in the supply of materials MMRDA shall grant such extension of time for the completion of the works as shall appear to the Chief Engineer to be reasonable in accordance with the circumstance of the case. The decision of the Chief Engineer as to the extension of time shall be accepted as final by the contractor.

CLAUSE 16 : Under no circumstance whatever shall the contractor be entitled to any compensation from MMRDA on any account unless the contractor shall have submitted a claim in writing to the Engineer-in-charge within one month of the cause of such claim occurring.

**Action and
compensati
on payable
in case of
bad work.**

CLAUSE 17 : If at any time before the security deposit is refunded to the contractor it shall appear to the Engineer-in-charge or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of inferior quality, or that any material or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or are otherwise not in accordance with the contract it

shall be lawful for the Engineer-in-charge to intimate this fact in writing to the contractor and then notwithstanding the fact the work, materials or articles complained of may have been in advertently passed, certified and paid for the contractor shall be bound forthwith to rectify or remove and reconstruct the work so specified in whole or in part, as the case may require or if so required, shall remove the materials or articles at his own charge and cost; and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding 10 days, during which the failure so continue, and in the case of any such failure the Engineer-in-charge may rectify or remove, and re-execute the work or remove and replace the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor. Should the Engineer-in-charge consider that any such inferior work or materials as described above may be accepted or made use of it shall be within his discretion to accept the same at such reduce rates as he may fix therefore.

Works to be open to inspection.

Contractor or responsible agent to be present

CLAUSE 18 : All works under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer-in-charge and his subordinates, and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his subordinate to visit the works shall have been given to the contractor, either himself be present to receive orders and instructions, or have a responsible agent duly accredited in writing present for that purpose. Orders given to the contractor's duly authorised agent shall be considered to have the same force and effect as if they had been given to the contractor himself.

Notice to be given before works is covered up.

CLAUSE 19 : The contractor shall give not less than five days notice in writing to the Engineer-in-charge or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured, and correct dimensions thereof taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach or measurement any work without the consent in writing of Engineer-in-charge or his subordinate in charge of the work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall be uncovered at the contractor's expense, and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

Contractor liable for damage done, and imperfection

CLAUSE 20 : If during the period of Six (6) months from the date of completion as certified by the Engineer-in-charge pursuant to Clause 7 of the contract or a period to cover one monsoon from 15th June to 15th October whichever is later in the opinion of the Executive Engineer, the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of notice in that behalf from the Executive Engineer duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying and setting right the defect specified therein including dismantling and reconstruction of unsafe portions strictly in accordance with and in the manner prescribed and under the supervision of the Executive Engineer in the event of the contractor failing or neglecting to commence execution of the said rectification work within the period prescribed thereof in the said notice and / or to complete the same as aforesaid as required by the

said notice. The Executive Engineer get the same executed and carried out departmentally or by any other agency at the risk on account and at the cost of the contractor. The contractor shall forthwith on demand pay to the MMRDA amount of such costs, charges and expenses sustained or incurred by the MMRDA of which the certificate of the Executive Engineer shall be final and binding on the contractor. Such costs, charges and expenses shall be deemed to be arrears of land revenue and in the event of the contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and remedies of the MMRDA, the same may be recovered from the contractor as arrears of land revenue. The Government shall also be entitled to deduct the same from any amount which may then be payable or which may thereafter become payable by the MMRDA to the contractor either in respect of the said work or any other work whatsoever or from the amount of security deposit retained by MMRDA.

Contractor to supply plant ladders, scaffolding etc.

CLAUSE 21 : The contractor shall supply at his own cost all materials (except such special materials, if any, as may, in accordance with the contract, be supplied from the MMRDA stores), plant, tools, appliances, implements, ladders, cordage, tackle scaffolding, temporary works requisite or proper for execution of the work, whether, the original, altered or substituted form, and whether included in specifications, or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to pay matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works, and counting, weighing and assisting

in the measurement or examination at any time and from time to time of the work or the materials. Failing this the same may be provided by the Engineer-in-charge at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accident, and shall also be bound to bear the expenses of defence of every suit, action or other proceedings, that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such person, or which may with the consent of the contractor be paid for compromising any claim by any such person.

And is liable For damages arising from on-provisions of lights fencing etc.

CLAUSE 21 - A : The contractor shall provide suitable scaffold and working platforms gangways and stairways, and shall comply with the following regulations in connection herewith -

- (a) Suitable scaffolds shall be provided for workmen for all works that cannot be safely done from a ladder or by other means.
- (b) A scaffold shall not be constructed, taken down, or substantially altered except -
 - i) under the supervision of a competent and responsible person; and
 - ii) as far as possible by competent worker possessing adequate experience in this kind of work.
- (c) All scaffolds and appliances connected therein and all ladders shall -
 - i) be of sound material;
 - ii) be of adequate strength having regard to the loads and strains to which they will be subjected, and
 - iii) be maintained in proper condition.

- (d) Scaffolds shall be so constructed that no part there of can be displaced in consequence of normal use.
- (e) Scaffold shall not be over-loaded and so far as practicable the load shall be evenly distributed.
- (f) Before installing lifting gear on scaffolds special precaution shall be taken to ensure the strength and stability of the scaffolds.
- (g) Scaffolds shall be periodically inspected by a competent person.
- (h) Before allowing a scaffold to be used by his workman the contractor shall check-up whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with the regulations herein specified.
- (i) Working platforms, gangways, and stairways shall -
 - (i) be so constructed that no part thereof can sag unduly or inequality;
 - (ii) be so constructed and maintained, having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping; and
 - (iii) be kept free from any unnecessary obstruction.
- (j) In the case of working platforms, gangways, working places and stairways at a height exceeding - (To be specified)
 - (i) every working platform and every gangway shall be, closely boarded unless other adequate measures are taken to ensure safety;
 - (ii) every working platform, and gangway shall have adequate width, and
 - (iii) every working platform, gangway, working place and stairway shall be suitably fenced.
- (k) Every opening in the floor of a building or in a working platform shall except for the time and to the time and to the extent required to allow the excess of persons or the transport or shifting of material; be provided with suitable means to prevent the fall of persons or materials.

- (l) When persons are employed on a roof where there is a danger of falling from a height exceeding suitable precaution shall be taken to prevent the fall of persons or materials.
- (m) Suitable precautions shall be taken to prevent persons being struck by article which might fall from scaffolds or other working places.
- (n) Safe means of access shall be provided to all working platforms and other working places.
- (o) The contractor shall have to make payment to the labourers as per minimum wages act.

CLAUSE 21-B : The contractor shall comply with the following regulation as regards the Hoisting appliances to be used by him :-

- (a) Hoisting machines and tackle, including their attachments, anchorage's and supports shall :
 - (i) be of good mechanical construction, sound material and adequate strength and free from patent defect; and
 - (ii) be kept in good repair and in good working order.
- (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.
- (c) Hoisting machines and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by the MMRDA.
- (d) Every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.
- (e) Every crane driver or hoisting appliance operator shall be properly qualified.
- (f) No person who is below the age of 21 years shall be in control of any hoisting machine, including any scaffold which, or give signals to the operator.
- (g) In the case of every hoisting machine and of every chain, ring

hook shackle, swivel and pulley block used in hoisting or lowering or as a means of suspension the safe working load shall be ascertained by adequate means.

(h) Every hoisting machine and all gear referred to in the preceding regulation

shall be plainly marked with the safe working load.

(i) In the case of a hoisting machine having a variable safe working load each safe working load and the conditions under which it is applicable shall be clearly indicated.

(j) No part of any hoisting machine or of any gear referred to in regulation 7 above shall be loaded beyond the safe working load except for the purpose of testing.

(k) Motors, gearing transmissions, electric wiring and other dangerous parts of hoisting appliance shall be provided with efficient safeguards.

(l) Hoisting appliances shall be provided with such means as will reduce to a minimum the risk of the accidental descent of the load.

(m) Adequate precautions shall be taken to reduce to a minimum risk of any part of a suspended load becoming accidentally displaced.

CLAUSE 21-C : The contractor / contractors will have to make payments to the labourers as per Minimum Wages Act, (1950).

CLAUSE 22 : The contractor shall not set fire to any standing jungle, trees, brushwood or grass without a written permit from the Executive Engineer.

**Measures
for
prevention
of fire**

When such permit is given, and also in all cases when destroying cut or dig up trees, brushwood, grass etc. by fire, the contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property.

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The contractor shall make his own arrangements for drinking water for the labour employed by him.

Liability of contractor for any damage done in or outside work area

CLAUSE 23 : Compensation for all damages done intentionally or unintentionally by contractor's labour whether in or beyond the limits of MMRDA property including any damage caused by the spreading of fire mentioned in clause 22 shall be estimated by the Engineer-in-charge or such other officer as he may appoint and the estimates of the Engineer-in-charge subject to the decision of the Chief Engineer on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demands failing which the same will be recovered from the contractors as damages in the manner prescribed in Clause 1 or deducted by the Engineer-in-charge from any sums that may be due or become due from MMRDA to the contractor under this contract or otherwise.

The contractor shall bear the expenses of defending any action or other legal proceedings that may be bounding by any person for injury sustained by him owing to neglect of precautions to prevent the spread of fire and he shall pay any damages and cost that may be awarded by the court in consequence.

Employment of female labour

CLAUSE 24 : The employment of female labourers on works in the neighbourhood of soldiers' barracks should be avoided as far as possible.

CLAUSE 25 : No work shall be done on a Sunday without the sanction in writing of the Engineer-in-charge.

Work not to be sublet unless it is permitted contract may be rescinded and security deposit forfeited for subletting it without approval or for bringing a public officer if contractors become insolvent

CLAUSE 26 : The contractor shall not assigned or sublet without the written approval of the Engineer-in-charge. And if the contractor shall assign or sublet his contract, or attempt so to do, or become insolvent or commence any proceedings to get himself adjudicated an insolvent or make any composition with his creditors, or attempt to do or if bribe, gratuity, gift. loan perquisite, reward or advantage, pecuniary or otherwise shall either directly or indirectly be given, promised, or offered by the contractor of any of his servants or agents to any public officer or person in the employment of MMRDA in any way relating to his officer or employment or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-charge may there upon by notice in writing rescind the contract, and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of MMRDA and the same consequences shall ensure as if the contract had been rescinded under Clause 3 hereof and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss

CLAUSE 27 : All sums payable by a contractor by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of MMRDA without reference to the actual loss or damage sustained, and whether any damage has or has not been sustained.

Changes in the constitution of firm to be notified.

CLAUSE 28 : In the case of tender by partners any change in the constitution of a firm shall be forthwith notified by the contractor to the Engineer-in-charge for his information.

Work to be under direction of the Executive Engineer

CLAUSE 29 : All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Executive Engineer of the MMRDA for the time being, who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE 30 (1) : Except where otherwise specified in the contract and subject to the powers delegated to him by MMRDA then in force the decision of the Senior Transportation Planner for the time being shall be final, conclusive and binding on all parties to the contract upon all questions relating to the meaning of the specifications, designs, drawings, and instructions, hereinbefore mentioned and as to the quality of workmanship or materials used on the work, or as to any other question, claim, right, matter or things, whatsoever if any, way arising out of or relating to the contracts designs drawings, specifications, estimates, instructions, orders or other conditions or otherwise concerning the works or the execution of failure to execute the same, whether arising, during the progress of the work or after completion of abandonment thereof.

CLAUSE 30 (2) : The contractor, may, within thirty days of receipt by him of any order passed by the Superintending Engineer as aforesaid, appeal against it to the Chief Engineer concerned with the contract work or project provided that -

- a) The accepted value of the contract exceeds Rs.10 lacs (Rupees Ten Lacs).
- b) Amount of claim is not less than Rs.1 lacs (Rupees One Lac).

CLAUSE 30 (3) : If the contractor is not satisfied with the order passed by the Chief Engineer as aforesaid, the contractor may,

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within thirty days of receipt by him of any such order, appeal against it to the Metropolitan Commissioner who, if convinced that prima-facie the contractor's claim rejected by Senior Transportation Planner / Chief, Transport & Communication Division is not frivolous and that there is some substance in the claim of the contractor as would merit a detailed examination through a suitable committee appointed for the purpose by the Metropolitan Commissioner if necessary and in that case decision taken by the committee shall be finalised by the competent authority and same shall be binding to the contractor.

Stores of European or American manufacture to be obtained from MMRDA

CLAUSE 31 : The contractor shall obtain from the MMRDA all stores and articles of European or American manufacture which may be required for the work, or any part thereof or in making up any articles required therefore or in connection therewith unless he has obtained permission in writing from the Engineer-in-charge to obtain such stores and articles elsewhere.

The value of such stores and articles as may be supplied to the contractor by the Engineer-in-charge will be debited to the contractor in his account at the rates shown in the Schedule in Form – A attached to the contract and if they are not entered in the said schedule, they shall be debited to him at cost price which for the purposes of this contract shall include the cost of carriage and all other expenses whatsoever, which shall have been incurred in obtaining delivery of the same at the stores aforesaid.

Lump sums estimates.

CLAUSE 32 : When the estimate on which a tender is made includes lump sums in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of works involved or the part of the work in question at the same rates as are payable under this contract for each item or if the part of the work in question is not in the opinion of the Engineer-in-charge capable of

measurement, the Engineer-in-charge may at his discretion pay the lump sum amount entered in the estimate, and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of this clause.

Action where no specification

CLAUSE 33 : In the case of any class of work for which there is no such specification as in mentioned in Rule 1 such work shall be carried out in accordance with the MMRDA Specifications, and in the event of there being no MMRDA's specification, then in such case the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-charge.

Definition of work

CLAUSE 34 : The expression "work" where used in these conditions, shall unless there be something in the subject or context repugnant to such construction, be constructed, to mean the work or works contracted to be executed under on in virtue of the contract, whether temporary or permanent and whether original, altered, substituted or additional.

Contractor's percentage whether applied to net or gross amounts of bills.

CLAUSE 35 : The percentage referred to in the tender shall be deducted from added to the gross amount of the bill before deducting the value of any stock issue.

Refund or quarry fees and royalties

CLAUSE 36 : All quarry fees, royalties, and ground rent for stacking materials, if any should be paid by the contractor.

Compensation under the workmen's compensation Act.

CLAUSE 37 : The contractor shall be responsible for and shall pay any compensation to his workman payable under the workmen's compensation Act, 1923 (VIII) of 1923, (hereinafter called the said Act.) for injuries caused to the workmen. If such compensation is payable paid by MMRDA as principal under sub-section (1) of Section 12 of the said Act on behalf of the Contractor, it shall be recoverable by MMRDA from the contractor under Sub-section (2) of the said section. Such compensation shall be recovered in the manner laid down in Clause 1 above.

CLAUSE 37 - A : The contractor shall be responsible for and shall pay the expenses of providing medical aid to any workman who may suffer a bodily injury as a result of an accident if such expenses are incurred by MMRDA the same shall be recoverable from the contractor forthwith and be deducted without prejudice to any other remedy of MMRDA from any amount due or that may become due to the contractor.

CLAUSE 37 - B : The contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of the persons employed on the site, shall maintain the same condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.

(a) The workers shall be required to use the equipment so provided by the contractor and the contractor shall take adequate steps to ensure proper use of the equipment by those concerned.

(b) When work is carried on in proximity to any place where there is a risk of drawing all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.

(c) Adequate provision shall be made for prompt first-aid treatment of all injuries likely to be sustained during the course of the work.

Claim for quantities entered in the tender or estimates.

CLAUSE 38 : (1) Quantities in respect of the several items shown in the tender are approximate and in respect of any of the items so long as, subject to any special provision contained in the specifications prescribing a different percentage of permissible variation, the quantity by more than 25 percent and 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 `5,000/-.

(2) The contractor shall, if ordered in writing by the Engineer so to do, also carry out any quantities in excess of the limit mentioned in sub-clause (1) hereof on the same conditions as and in accordance with the specifications in the tender and the rates (i) derived from the rates entered in the current schedule of rates and in the absence of such rates, (ii) at the rate prevailing in the market, the said rates being increased or decreased as the case may be by the percentage which the total tendered amount bear to the estimated cost of the work as put to tender based upon the Schedule of Rates applicable to the year in which the tenderer were invited for the purpose of operation of this clause, this cost shall be taken to be Rs.1,50,75,888/- (Rupees One Crore Fifty Lakh Seventy Five Thousand Eight Hundred Eighty Eight only).

(3) Claims arising out of reduction in the tendered quantity of any item beyond 25 percent will be governed by the provisions of Clause 15 only when the amount of such reduction beyond 25 percent at the rate of the item specified in the tender is more than `5,000/-.

In view of the rationalization of the provisions of a Clause 37 of B-2 and 38 of B-1 tender form as above, it is necessary to prescribe the manner in which the claims arising out of reduction in the tendered quantity of any item under Clause 15 of the tender form should be dealt with.

Employment of famine etc. labour	CLAUSE 39 : The contractor shall employ any famine, convict or other labour of a particular kind of class if ordered in writing to do so by Engineer-in-charge.
Claim for compensation for delay in the starting the work.	CLAUSE 40 : No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or, in the case of clearance works, on account of any delay in according sanction to estimates.
Claim for compensation for delay in the execution of work.	CLAUSE 41 : No compensation shall be allowed for any delay in the execution of the work on account of water standing in borrow pits or compartments. The rates are inclusive for hard or cracked soil, excavation in mud, sub-soil water or water standing in borrow and no claim for an extra rate shall be entertained, unless otherwise expressly specified.
Entering upon or commencing any portion of work	CLAUSE 42 : The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of the Engineer-in-charge or of his sub-ordinate in charge of the work, failing which the contractor shall have no claim to ask for measurements or payment for work.
Minimum age of persons employed the employment of donkeys and or other animals and the payment of fair wages	<p>CLAUSE 43 : (i) No contractor shall employ any person who is under the age of 18 years.</p> <p>(ii) No contractor shall employ donkeys or other animals with breaching of string or thin rope. The breaching must be at least three inches wide and should be of tape (Nawar).</p> <p>(iii) No animal suffering from sores, lameness or emaciation or which is immature shall be employed on the work.</p> <p>(iv) The Engineer-in-charge or his Agent is authorized to remove from the work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by MMRDA for any delay caused in the completion of the work due to</p>

such removal .

(v) The contractor shall pay fair and reasonable wages to the workmen employed by him in the contract undertaken by him.

In the event of any dispute arising between the contractor and his workmen on the grounds that the wages paid are not fair and reasonable the dispute shall be referred to the Executive Engineer, who shall decide the same. The decisions of the Executive Engineer shall be conclusive and binding on the contractor but such decision shall not in any way effect the conditions in the contract regarding the payment to be made by MMRDA at the sanctioned rates.

(vi) Contractor shall provide drinking water facilities to the workers. Similar amenities shall be provided to the workers engaged on large work in urban areas.

Method of payment

CLAUSE 44 : Payment to contractors shall be made by cheque drawn on any Bank with division convenient to them, provided the amount exceeds Rs.10/-. Amount not exceeding Rs. 10/- will be paid in cash.

Acceptance of condition before tendering for works

CLAUSE 45 : Any contractor who does not accept these conditions shall not be allowed to tender for work.

Employment of Scarcity of Labour

CLAUSE 46 : If Government declares a state of scarcity of famine to exist in any village situated within 10 miles of the work, the contractor shall employ upon such parts of the work, as are suitable for unskilled labour, any person certified to him by the Executive Engineer or be any person to whom the Executive Engineer may have delegated this duty in writing to be in need of relief and shall be

bound to pay to such persons wages not below the minimum which Government may have fixed in this behalf. Any disputes which may arise in connection with the implementation of this clause shall be decided by the Chief Engineer whose decision shall be final and binding on the contractor.

CLAUSE 47 : The price quoted by the contractors shall not in any case exceed the control price, if any, fixed by Government or reasonable price which it is permissible for him to change a private purchaser for the same class and description, the controlled price or the price permissible under Hoarding and Profiteering Ordinance, 1943 as amended from time to time. If the price quoted exceeds the controlled price or the price permissible under Hoarding and Profiteering Prevention Ordinance, the contractor will specifically mention this fact in this tender along with the reasons for quoting such higher prices. The purchaser at his discretion will in such case exercise the right of revising the price at any stage so as to conform with the controlled price or the price permissible under the Hoarding and Profiteering Prevention Ordinance. The discretion will be exercised without prejudice to any other action that may be taken against the contractor.

CLAUSE 48 : The contractor shall employ at least 80 percent of the total number of unskilled labour to be employed by him on the said work from out of the persons ordinarily residing to the district in which site of the said work is located.

"Provided, however, that if the required number of unskilled labour from that district is not available, the contractor shall in the first instance employ such number of persons as is available and thereafter may with the previous permission in writing of the Executive Engineer-in-charge of the said work, obtain the rest of his requirement of unskilled labour from outside the district."

CLAUSE 49 : In case of materials that may remain surplus with the contractor/s from those issued for the work contracted for the date of as containment of the materials being surplus will be taken as the date of sale for the purpose of sales tax and the sales tax will be recovered on such sale.

CLAUSE 50 : The contractor should engage the requisite number of Apprentices in respect of building crafts renders had provided in the Apprenticeship Act, 1961 through the State Apprenticeship Advisor Department of Technical Educational Dhobi Talao,. Mumbai.

CLAUSE 51: "All amounts, whatsoever, which the contractor is liable to pay to the MMRDA in connection with the execution of the work including the amount payable in respect of (i) materials and or stones supplied issued hereunder by the MMRDA to the contractor (ii) hire charges in respect of heavy plant, machinery and equipment given or hire by the MMRDA to the contractor for execution by him of the work and/or on advance have been given by the MMRDA, to the contractor shall be deemed to be arrears of land revenue and the MMRDA may without prejudice to any other rights and remedies of the MMRDA, recover the same from the contractor as arrears of land revenue."

CLAUSE 52 : "A contractor shall comply with the provision of the Apprentice Act, 1961 and the rules and orders issued thereunder from time to time. If he fails to do so his failures will be breach of the contract and the Chief Engineer may in his direction cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provision of the Act."

CLAUSE 53: The contractor shall duly comply with all the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and the Maharashtra Contract Labour (Regulation and Abolition) Rules, 1971 as amended from time to time and all other relevant statutes and statutory provisions concerning payment of wages particularly to workmen employed by the contractor and working on the site of the work. In particular the contractor shall pay wages to each worker employed by him on the site of the work at the rates prescribed under the Maharashtra Contract Labour (Regulation and Abolition) Rules 1971. If the contractor fails or neglects to pay wages at the said rates or makes short payment and the MMRDA makes such payment of wages in full or part thereof less paid by the contractor as the case may be, the amount so paid by the MMRDA to such workers shall be deemed to be arrears of land revenue and the MMRDA shall be entitled to recover the same as such from the contractor or deduct the same from the amount payable by the MMRDA to the contractor hereunder or from any other amounts payable to him by the MMRDA.

CHAPTER – VIII (c)**PRICE VARIATION CLAUSE**

1. 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 center as per the Labour Gazette published by the Commissioner of Labour Government of Maharashtra and / or in the wholesale price index for all commodities prepared by the office of Economic Adviser, Ministry of Industry, Government of India, as compared to the respective figure therefore, on the date 30 days before the last date prescribed for receipt of tender and / or in the prices of Petrol / Oil and lubricants, then, subject to the other conditions mentioned below, price adjustment on account of :

- i) Labour component
- ii) Material component; and
- iii) POL components,

which respectively are 70%, 25% and 5% of the total cost of work put to tender, calculated as per the formula hereinafter appearing, shall be made. (Total of all these three components will be 100).

(A) Formula for Labour Component :

$$VI = 0.85 \times \left[\frac{P - \text{Cost of Schedule 'A' material used}}{\text{material used}} \right] \times \left[\frac{K1}{100} \times \frac{C1 - CO}{CO} \right]$$

Where =

VI = Amount of price variation in Rupees to be allowed.

P = Cost of work done during the period under consideration.

K1 = Percentage of Labour Component as indicated above.

CO = Basic Consumer Price Index for Mumbai Center ascertained as above on the date of 30 days preceding the last date prescribed for receipt of tender.

C1 = Average Consumer Price Index for Mumbai Center ascertained as above during the period under consideration.

(B) Formula for Material Component :

$$V2 = 0.85 \times \left[\frac{(P - \text{Cost of Schedule 'A'})}{\text{material used}} \right] \times \left[\frac{K2}{100} \times \frac{I1-IO}{IO} \right]$$

Where =

V2 = Amount of price variation in Rupees to be allowed.

P = Cost of work done during the period under consideration.

K2 = Percentage of Material Component as indicated above.

IO = Basic Consumer Price Index for Mumbai Center ascertained as above on the date of 30 days preceding the last date prescribed for receipt of tender.

I1 = Average Wholesale Price Index ascertained as above during the period under consideration.

(C) Formula for Petrol, Oil and Lubricant Component :

$$V3 = 0.85 \times \left[\frac{(P - \text{Cost of Schedule 'A'})}{\text{material used}} \right] \times \left[\frac{K3}{100} \times \frac{P1-PO}{PO} \right]$$

Where =

V3 = Amount of price variation in Rupees to be allowed.

P = Cost of work done during the period under consideration.

K3 = Percentage of Petrol, Oil and Lubricant Component.

PI = Average price H.S.D. for Mumbai, during the period under consideration.

PO = Average Price of H.S.D. for Mumbai on the date 30 days preceding the last date prescribed for receipt of Tender.

II. Conditions referred to in Paragraph-I :

- (i) The Operative Period of the contract shall mean the period commencing from the date of the work order issued to the contractor and ending on the date when the time allowed for the work specified in the Memorandum under Tender for work expires, taking into consideration the extension of time, if any, for

completion of the work granted by Engineer-in-charge under the relevant clause 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 the Engineer-in-charge as regards the Operative Period of the contract shall be final and binding on the contractor. Where compensation for liquidated damages is levied on the contractor on account of delay in completion of inadequate progress under the relevant contract provisions, the escalation amount for the balance work from the date of levy of such compensation shall be worked out by paging the indices C-1, I-1 and P-1 to levels corresponding to the date from which such compensation is levied.

- (ii) This price variation clause shall be applicable to all contracts in B-1, B-2 and C forms but shall not apply for piece works.
- (iii) Price variation shall be calculated, in accordance with the formula mentioned above, separately for labour, material and POL components.
- (iv) The price variation under this clause shall not be payable for the extra items required to be executed during the completion of the work and also on the excess quantities payable under the provisions of Clause 38/37 of the contract from B1/B2 respectively, since the rates payable for the extra items or the extra quantities under Clause 38/37 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 38/37 of the contract form B1/B2 extends beyond the operative date of the then DSR, the rates payable for the same beyond that date shall be revised with reference to the next 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.

- (v) This clause is operative both ways, i.e. if the price variation in the said Wholesale Price Index for all commodities, Consumer Price Index (New Series) or price of HSD for Mumbai is on the plus side, payment on account of the price variation shall be allowed to the contractor and if it is on the negative side, the Government shall be entitled to recover the same from the Contractor and the amount shall be deductible from the contractor's bill for the respective period in which there are fluctuation.

CHAPTER – VIII (d)**SCHEDULE ‘A’**

Name of Work : Shifting of TPL’s HT/LT poles & transformers obstructing the construction of proposed flyover bridge at Ranjnoli & Mankoli Junction on NH-3 at Bhivandi.

Schedule showing (approximately) the materials to be supplied from the MMRDA’s Stores for works contracted to be executed and the rates at which they are to be charged for

Particulars	Rate at which the materials will be charged to the contractor	Place of delivery
	Unit Rs. Ps.	
- NIL -	- NIL -	- NIL -

Note : 1) The person or firm submitting the tender should see that the rates in the above schedule are filled up by the Executive Engineer on the issue of the form prior to the submission of the tender.

2) Loading, transportation to work site from the place of delivery, unloading, etc. will be contractor’s responsibility for which no extra payment shall be made.

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CHAPTER – IX (e)**SCHEDULE – B****ABSTRACT**

Name of Work : Construction of Storm Water Drain replacing sewer lines and construction of Foot-path etc. at Kokari Agar, Wadala R&R Colony.

Quantity	Name of Work	Rate (`)		Unit	Amount (`)
		Rate in figures	Rate in words		
363.25	Item No.1) Excavation in road carriage ways, footpath, asphalt mixed carpet of any type or concrete plain or reinforced, upto any depth, including all lifts and depositing excavated materials in a radius of 150M. Including cutting of reinforcements manually or using pneumatic jack hammer or by any other mechanical means as specified and directed.	417.60	Rupees Four Hundred Seventeen & Paise Sixty only.	Cu.M.	151693.20
2860.50	Item No.2) Excavation for foundation in including removing the excavated materials upto a distance of 50m beyond the building area and lift upto 1.50m stacking & spreading as directed including dewatering unless provided else where. Preparing the bed for the foundation and necessary backfilling, raming, watering complete excluding shoring and shuttering.	137.94	Rupees One Hundred Thirty-seven & Paise Ninety-four only.	Cum	394577.37
	a) earth, soil of all types, sand, gravel and soft murum.				

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300.00	Item No.3) Dewatering the excavated trenches and pools of the water in building area by using 5 to 9 H.P. and other devices, including dispose of water to a safe distance as directed.	72.325	Rupees Seventy-two & Paise Three-Two-Five only.	Hour	21697.50
2000.00	Item No.4) Providing watching fencing etc. to trench excavation per running meter length of trench as per drawing and as directed by Engineer.	96.00	Rupees Ninety-six only.	Rmt.	192000.00
2009.91	Item No.5) Transporting surplus materials upto 3 km excluding levelling.	262.80	Rupees Two Hundred Sixty-two & Paise Eighty only.	Cu.M.	528204.58
1000.00	Item No.6) Providing and fixing the barricading in double row with G.I. sheet of 22gauge manufactured by Tata Co. and Jindal Co. fixed on 3" dia (75mm) wooden bullies which will be burried in existing road sufficiently. Embossing of Tata/Jindal Brand on G.I. sheet shall be ensured before painting with yellow and black bands of enamel paint as per the traffic norms and as directed by Engineer.	464.40	Rupees Four Hundred Sixty-four & Paise Forty only.	Rmt.	464400.00
900.00	Item No.7) Providing and removing shoring in trenches wherever directed as per specifications / drawings etc. complete. Note: 1) Rate applicable shall be paid for each excavated side of trench 2) In case of leaving wood work in trenches, deduct Rs.5/- per Sq.m. or Rs.59/- per Cu.M. for not doing deshoring. (JVLR Approved rate)	2478.00	Rupees Two Thousand Four Hundred Seventy-eight only.	Sqm	2230200.00
211.05	Item No.8) Providing soling using 80mm size trap metal in 15cm layer including filling voids with sand, ramming, watering etc. complete.	786.50	Rupees Seven Hundred Eighty-six & Paise Fifty only.	Cum	165990.83

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226.05	Item No.9) Providing and laying in situ cement concrete M15 of trap metal for foundation and bedding including bailing out water manually, formwork, compacting and curing. (Cement 3.40 bags per Cum).	4355.07	Rupees Four Thousand Three Hundred Fifty-five & Paise Seven only.	Cum	984463.57
950.00	Item No.10) Providing and laying cement concrete pipes of NP-2 class of 300 mm diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2 complete including loading and unloading of pipes.	690.00	Rupees Six Hundred Ninety only.	Rmt.	655500.00
250.00	Item No.11) Providing and laying cement concrete pipes of NP-2 class of 450 mm diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2 complete including loading and unloading of pipes.	935.00	Rupees Nine Hundred Thirty-five only.	Rmt.	233750.00
185.00	Item No.12) Providing and laying cement concrete pipes of NP-2 class of 600 mm diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2 complete including loading and unloading of pipes.	1390.00	Rupees One Thousand Three Hundred Ninety only.	Rmt.	257150.00
44.16	Item No.13) Providing Second Class Burnt Brick masonry with conventional / IS type bricks in cement mortar 1:6 in plinth incl. striking joints, racking out joints, watering and scaffolding etc. complete.	3538.205	Rupees Three Thousand Five Hundred Thirty-eight & Paise Two-Zero-Five only.	Cum	156247.13

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528	Item No.14) Providing rough cast cement plaster externally in two coats to concrete / brick / stone masonry in all positions incl. preparing the base, watering and applying base coat of 12 to 15 mm thick in cement mortar 1:4 using water proofing compound at the of 1kg per 50kg of cement and rough cast treatment 12 mm thick in proportion 1:1.5:3 incl. scaffolding and 14 days curing etc. complete.	295.68	Rupees Two Hundred Ninety-five & Paise Sixty-eight only.	Sqm	156119.04
4.14	Item No.15) Providing and laying in situ plain cement concrete M-20 of trap metal for foundation and bedding incl. bailing out water manually, formwork, compacting and curing.	4553.835	Rupees Four Thousand Five Hundred Fifty-three & Paise Eight-Three-Five only.	Cum	18852.88
20.00	Item No.16) Bricks masonry rectangular inspection chamber of size 90 x 45 cm and depth up to 1 m on drain lines with 230 mm bricks wall in C.M. (1:2) plastered on both sides with 20 mm thick cement mortar 1:2 including 230mm cement concrete 1:3:6 bedding as per standard plan & drawing including excavation, refilling the excavated sides and removing surplus earth with 75 mm R.C.C. cover with nominal reinforcement including recess in the masonry, and with C.I steps fixed in cement mortar with cement and sand filleting with C.I. Frame and cover both together weighing not less than 102 kg.	10096.80	Rupees Ten Thousand Ninety-six & Paise Eighty only.	Nos.	201936.00

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1340.00	Item No.17) Providing & fixing interlocking concrete paver unishape (monolithic-single layer pre-cast concrete blocks) of gray cement colour as per technical specification, 80 mm thick having average crushing strength of 45N/sq.mm placed on average thickness of 40mm uniformly graded river sand cushioning with property compacted with mechanical compactor with required level grade and camber etc. complete as directed.	1113.60	Rupees One Thousand One Hundred Thirteen & Paise Sixty only.	Sqm	1492224.00
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1425.00	Item No.18) Providing and fixing in the footpath, 60mm thick Lacquer coated (Reflective) interlocking white cement concrete pavers in red (Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/shape and colour having average crusting strength 40 N/mm ² manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve, silica sand and with pure iron oxide ultra voilete stabilized pegment @ 5% by weight of white cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in gray cement should be 45 to 48 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.	1123.55	Rupees One Thousand One Hundred Twenty-three & Paise Fifty-five only.	Sqm	1601058.75
2295.00	Item No.19) Supplying blue trap stones of approved quality & Providing the same in rubble packing 25cm. Thick to the required grade, level & camber, filling in voids with chips & 60 mm metal etc. compacting using mechanical vibrating compactor / 8-10 MT Roller etc. complete as specified & as directed by the Engineer.	332.40	Rupees Three Hundred Thirty-two & Paise Forty only.	Sqm	762858.00

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229.50	<p>Item No.20) Providing and laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm (compacted thickness each) with sensor paver finisher on prepared sub base & compacting with vibratory roller (10 tonne) to achieve desired density including lighting, guarding barricading & maintenance of diversion etc. as directed by the Engineer. (Rebate for not using sensor paver Rs.14/- should be taken) As per MCGM Road Specifications clause No.240.</p>	3141.60	Rupees Three Thousand One Hundred Forty-one & Paise Sixty only.	Cu.M.	720997.20
229.50	<p>Item No.21) Providing and laying, spreading & compacting graded crushed stone in granular sub base course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixing material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barricading to all lifts and lead maintenance of diversion etc. complete (metal gradation from 90mm to 75mm micron as per MCGM Road specifications clause No.210).</p>	2725.20	Rupees Two Thousand Seven Hundred Twenty-five & Paise Twenty only.	Cu.M.	625433.40

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673.50	Item No.22) Supplying and filling sand and metal in trenches upto varied depth and watering , ramming etc. complete as directed by Engineer-in-charge. (JVLR Approved rate)	1915.00	Rupees One Thousand Nine Hundred Fifteen only.	Cu.M.	1289752.50
50.00	Item No.23) Providing And placing M25 grade RCC precast Frame with cover over Chamber.(700 mmX 450mm) or as directed.	2289.00	Rupees Two Thousand Two Hundred Eighty-nine only.	Nos.	114450.00
150.00	Item No.24) Labour for miscellaneous works.	241.373	Rupees Two Hundred Forty-one & Paise Three-Seven-Three only.	No.	36205.95
288.75	Item No. 25) Excavation in road carriage ways, footpath, asphalt mixed carpet of any type or concrete plain or reinforced, upto any depth, including all lifts and depositing excavated materials in a radius of 150M. Including cutting of reinforcements manually or using pneumatic jack hammer or by any other mechanical means as specified and directed.	417.60	Rupees Four Hundred Seventeen & Paise Sixty only.	Cu.M.	120582.00
1811.25	Item No. 26) Excavation for foundation in including removing the excavated materials upto a distance of 50m beyond the building area and lift upto 1.50m stacking & spreading as directed including dewatering unless provided else where. Preparing the bed for the foundation and necessary backfilling, raming, watering complete excluding shoring and shuttering. a) earth, soil of all types, sand, gravel and soft murum.	137.94	Rupees One Hundred Thirty-seven & Paise Ninety-four only.	Cum	249843.83

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100.00	Item No.27) Dewatering the excavated trenches and pools of the water in building area by using 5 to 9 H.P. and other devices, including dispose of water to a safe distance as directed.	72.33	Rupees Seventy-two & Paise Thirty-three only.	Hour	7232.50
2500.00	Item No.28) Providing watching fencing etc. to trench excavation per running meter length of trench as per drawing and as directed by Engineer.	96.00	Rupees Ninety-six only.	Rmt.	240000.00
2100.00	Item No.29) Transporting surplus materials upto 3 km excluding leveling.	262.80	Rupees Two Hundred Sixty-two & Paise Eighty only.	Cu.M.	551880.00
350.00	Item No.30) Providing and fixing the barricading in double row with G.I. sheet of 22gauge manufactured by Tata Co. and Jindal Co. fixed on 3" dia (75mm) wooden bullies which will be burried in existing road sufficiently. Embossing of Tata/Jindal Brand on G.I. sheet shall be ensured before painting with yellow and black bands of enamel paint as per the traffic norms and as directed by Engineer.	464.40	Rupees Four Hundred Sixty-four & Paise Forty only.	Rmt.	162540.00
189.75	Item No.31) Providing soling using 80mm size trap metal in 15cm layer including filling voids with sand, raming, watering etc. complete.	786.50	Rupees Seven Hundred Eighty-six & Paise Fifty only.	Cum	149238.38
189.75	Item No.32) Providing and laying in situ cement concrete M15 of trap metal for foundation and bedding including bailing out water manually, formwork, compacting and curing. (Cement 3.40 bags per Cum).	4355.065	Rupees Four Thousand Three Hundred Fifty-five & Paise Zero-Six-Five only.	Cum	826373.58

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50.00	Item No.33) Providing and laying cement concrete pipes of NP-2 class of 450 mm (18") diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2 complete including loading and unloading of pipes. (The pipes will be as per I.S.1971).	900.00	Rupees Nine Hundred only.	Rmt.	45000.00
4025.00	Item No.34) Providing and removing steel / plywood shuttering and centering for hidden faces(Type F1) for footing, plinth beams, col. Below plinth level etc.	302.40	Rupees Three Hundred Two & Paise Forty only.	Sqm	1217160.00
14.00	Item no.35) Providing and fixing in position Mild steel bar reinforcement / Tor Steel bar reinforcement of various diameters for RCC pile caps, footings, foundations, slabs, columns, canopies, staircases, newels chajjas lintels, pardies, copings, fins, arches etc. as per detailed designs and drawings and schedules incl. cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	48452.80	Rupees Forty-eight Thousand Four Hundred Fifty-two & Paise Eighty only.	MT	678339.20
138.00	Item No.36) Providing and laying M20 controlled cement concrete with minimum cement content of 340 kg. per Cu.M. for all structural members (columns, beams, slab etc.) above plinth level including mixing, placing, consolidating, curing etc. complete excluding shuttering.	5265.60	Rupees Five Thousand Two Hundred Sixty-five & Paise Sixty only.	Cu.M.	726652.80
675.20	Item No.37) P/L Precast M-20 plain C.C. slabs, 10 cm. Thick over M-10 C.C. Bedding 10 cm. Thick, including filling in the joints with 1:2 C.M. & pointing, curing etc. complete.	1579.20	Rupees One Thousand Five Hundred Seventy-nine & Paise Twenty only.	Sqm	1066275.84

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548.00	Item No.38) Providing And placing M25 grade RCC precast Frame with cover over Chamber.(700 mmX 450mm) (JVLR Approved rate)	2289.00	Rupees Two Thousand Two Hundred Eighty-nine only.	Nos.	1254372.00
27.00	Item No.39) Supplying and filling sand and metal in trenches upto varied depth and watering , ramming etc. complete as directed by Engineer-in-charge. (JVLR Approved rate)	1915.00	Rupees One Thousand Nine Hundred Fifteen only.	Cu.M.	51705.00
100.00	Item No.40) Labour for miscellaneous works.	219.43	Rupees Two Hundred Nineteen & Paise Forty-three only.	No.	21943.00
490.19	Item No.41) Excavation in road carriage ways, footpath, asphalt mixed carpet of any type or concrete plain or reinforced, upto any depth, including all lifts and depositing excavated materials in a radius of 150M. Including cutting of reinforcements manually or using pneumatic jack hammer or by any other mechanical means as specified and directed.	417.60	Rupees Four Hundred Seventeen & Paise Sixty only.	Cum	204702.30
490.19	Item No.42) Transporting surplus materials upto 3 km excluding leveling.	262.80	Rupees Two Hundred Sixty-two & Paise Eighty only.	Cum	128821.28

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237.19	<p>Item No.43) Providing and laying, spreading & compacting graded crushed stone in granular sub base course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixing material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barricading to all lifts and lead maintenance of diversion etc. complete (metal gradation from 90mm to 75mm micron as per MCGM Road specifications clause No.210).</p>	2725.20	Rupees Two Thousand Seven Hundred Twenty-five & Paise Twenty only.	Cum	646383.38
158.13	<p>Item No.44) Providing and laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm (compacted thickness each) with sensor paver finisher on prepared sub base & compacting with vibratory roller (10 tonne) to achieve desired density including lighting, guarding barricading & maintenance of diversion etc. as directed by the Engineer. (Rebate for not using sensor paver Rs.14/- should be taken) As per MCGM Road Specifications clause No.240.</p>	3141.60	Rupees Three Thousand One Hundred Forty-one & Paise Sixty only.	Cum	496765.5

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1581.25	<p>Item No.45) Providing and fixing in the footpath, 60mm thick Lacquer coated (Reflective) interlocking white cement concrete pavers in red (Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/shape and colour having average crusting strength 40 N/mm² manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve, silica sand and with pure iron oxide ultra voilte stabilized pegment @ 5% by weight of white cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in gray cement should be 45 to 48 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.</p>	1172.40	Rupees One Thousand One Hundred Seventy-two & Paise Forty only.	Sqm	1853857.50
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CONTRACTOR

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650.00	<p>Item No.46) Providing & fixing kerb stone of height 325mm., base width 165mm., top width 115mm in M20 grade RMC supplied through MCGM approved plant or concrete mixed with use of weigh batch mixers as detailed in drawing u/No.Dy.Ch.E./Rds/93/E.S. of 17/8/2005, excavation in any soil except rock, laying a leveling course of M15 grade RMC 100mm. thick, to required slope (inclusive from work) jointing in C.M.1:2 proportion flush to concrete surface, painting exposed surface with one coat of primer and two coats of 1st grade road marking paint in the yellow/white/black or any shade as directed. (Kerbstones shall be procured from MCGM registered agencies) or as directed.</p>	698.40	Rupees Six Hundred Ninety-eight & Paise Forty only.	Rmt	453960.00
650.00	<p>Item No.47) Providing and fixing of the precast tapered water table of thickness varying from 105 to 125 mm., 300 mm. width in M20 grade RMC (Supplied through MCGM approved plant) ro concrete mixed with use of weigh batch mixers as detailed in drawing No.Dy.ChE/Rds/94/E.S. dated 17.8.2005 inclusive of excavation in any soil except rock, laying of leveling course of M15 grade RMC 100mm. thick to required slope, (inclusive of from work) jointing in 1:2 cm. prop. flush to concrete surfaces as directed (Water tables shall be procured from MCGM registered agencies only)</p>	594	Rupees Five Hundred Ninety-four only.	Rmt	386100.00

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241.00	Item No.48) Providing and laying, spreading & compacting graded crushed stone in granular sub base course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixing material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barricading to all lifts and lead maintenance of diversion etc. complete (metal gradation from 90mm to 75mm micron as per MCGM Road specifications clause No.210).	2725.20	Rupees Two Thousand Seven Hundred Twenty-five & Paise Twenty only.	Cu.M.	656773.20
2410.00	Item No.49) Providing and applying TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.25 to 0.30 Kg. of Sq.mt. over prepared surface to receive bituminous mix by applying TACK COAT mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For GRANULAR SURFACES Treated with PRIMER (Clause No.314).	26.40	Rupees Twenty-six & Paise Forty only.	Sqm	63624.00

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2410.00	Item No.50) Providing & Laying premix hot mix Bituminous Macadam with 3.30% (with tolerance of \pm 0.3) of 60/70 pen. Bitumen by weight of mix using reconditioned milling material to the required grade, level & camber, rolling with 10/12 tonnes power roller, vibratory roller & sensor paver complete as specified & as directed to thickness of 75mm. with antistripping agent 1% by weight of bitumen. (Using reconditioned milling material 30%) (As per New Road Specifications Clause No.380).	518.40	Rupees Five Hundred Eighteen & Paise Forty only.	Sqm	1249344.00
2410.00	Item No.51) Providing and applying TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.25 to 0.35 Kg. to Sq.mt. over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc., completed, as directed For DRY & HUNGRY BITUMINNOUS SURFACES (As per New Road Specifications Clause No.314).	26.40	Rupees Twenty-six & Paise Forty only.	Sqm	63624.00
2410.00	Item No.52) Providing & Laying premix hot mix bituminous concrete with 6.00% of 60/70 Pen bitumen content by weight of mix surface coat to compacted thickness of 40 mm. using new material to the required grade, level and camber rolling with vibratory roller, power roller, pneumatic roller & using sensor paver etc. complete as specified and as directed with addition of lime filler 2% by weight of mix and anti stripping agent @ 1.00% of bitumen etc. (As per New Road Specifications Clause No.364)	500.40	Rupees Five Hundred & Paise Forty only.	Sqm	1205964.00

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5576.45	Item No.53) Excavation in road carriage ways, footpath, asphalt mixed carpet of any type or concrete plain or reinforced, upto any depth, including all lifts and depositing excavated materials in a radius of 150M. Including cutting of reinforcements manually or using pneumatic jack hammer or by any other mechanical means as specified and directed.	417.60	Rupees Four Hundred Seventeen & Paise Sixty only.	Cu.M.	2328725.52
10139.00	Item No.54) Supplying blue trap stones of approved quality & Providing the same in rubble packing 25cm. Thick to the required grade, level & camber, filling in voids with chips & 60 mm metal etc. compacting using mechanical vibrating compactor / 8-10 MT Roller etc. complete as specified & as directed by the Engineer.	332.40	Rupees Three Hundred Thirty-two & Paise Forty only.	Sqm	3370203.60
1013.9	Item No.55) Providing and laying, spreading & compacting graded crushed stone in granular sub base course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixing material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barricading to all lifts and lead maintenance of diversion etc. complete (metal gradation from 90mm to 75mm micron as per MCGM Road specifications clause No.210).	2725.20	Rupees Two Thousand Seven Hundred Twenty-five & Paise Twenty only.	Cu.M.	2763080.28

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EXECUTIVE ENGINEER

1013.9	<p>Item No.56) Providing and laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm (compacted thickness each) with sensor paver finisher on prepared sub base & compacting with vibratory roller (10 tonne) to achieve desired density including lighting, guarding barricading & maintenance of diversion etc. as directed by the Engineer. (Rebate for not using sensor paver Rs.14/- should be taken) As per MCGM Road Specifications clause No.240.</p>	3141.60	Rupees Three Thousand One Hundred Forty-one & Paise Sixty only.	Cu.M.	3185268.24
4914	<p>Item No.57) Providing & fixing interlocking concrete paver unishape (monolithic-single layer pre-cast concrete blocks) of gray cement colour as per technical specification, 80 mm thick having average crushing strength of 45N/sq.mm placed on average thickness of 40mm uniformly graded river sand cushioning with property compacted with mechanical compactor with required level grade and camber etc. complete as directed.</p>	1113.60	Rupees One Thousand One Hundred Thirteen & Paise Sixty only.	Sqm	5472230.40

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	<p>Item No.58) Providing and fixing in the footpath, 60mm thick Lacquer coated (Reflective) interlocking white cement concrete pavers in red (Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/shape and colour having average crusting strength 40 N/mm² manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve, silica sand and with pure iron oxide ultra voilete stabilized pegment @ 5% by weight of white cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in gray cement should be 45 to 48 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.</p>	1123.55	Rupees One Thousand One Hundred Twenty-three & Paise Fifty-five only.	Sqm	0.00
3903.52	<p>Item No.59) Transporting surplus materials upto 3 km excluding leveling.</p>	262.80	Rupees Two Hundred Sixty-two & Paise Eighty only.	Cu.M.	1025843.74

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250	Item No.60) Labour for miscellaneous works.	241.373	Rupees Two Hundred Forty-one & Paise Three-Seven-Three only.	No.	60343.25
	Total				4,64,40,514.20

say ` 4,64,40,514.00

(Rupees Four Crores Sixty-four Lakhs Forty Thousand Five Hundred Fourteen only)

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CHAPTER – (X)**Detailed Item-wise Specifications**

Name of Work : Construction of Storm Water Drain replacing sewer lines and construction of Foot-path etc. at Kokari Agar, Wadala R&R Colony.

Item of Work	Specification
Item No.1) Excavation in road carriage ways, footpath, asphalt mixed carpet of any type or concrete plain or reinforced, upto any depth, including all lifts and depositing excavated materials in a radius of 150M. Including cutting of reinforcements manually or using pneumatic jack hammer or by any other mechanical means as specified and directed.	As per most specification.
Item No.2) Excavation for foundation in including removing the excavated materials upto a distance of 50m beyond the building area and lift upto 1.50m stacking & spreading as directed including dewatering unless provided else where. Preparing the bed for the foundation and necessary backfilling, raming, watering complete excluding shoring and shuttering.	Public Works and Housing Department Standing Specification Pg.24/13.1
a) earth, soil of all types, sand, gravel and soft murum.	
Item No.3) Dewatering the excavated trenches and pools of the water in building area by using 5 to 9 H.P. and other devices, including dispose of water to a safe distance as directed.	As directed by Engineer-in-charge.
Item No.4) Providing watching fencing etc. to trench excavation per running meter length of trench as per drawing and as directed by Engineer.	As directed by Engineer-in-charge.

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Item No.5) Transporting surplus materials upto 3 km excluding levelling.	As directed by Engineer-in-charge.
Item No.6) Providing and fixing the barricading in double row with G.I. sheet of 22gauge manufactured by Tata Co. and Jindal Co. fixed on 3" dia (75mm) wooden bullies which will be buried in existing road sufficiently. Embossing of Tata/Jindal Brand on G.I. sheet shall be ensured before painting with yellow and black bands of enamel paint as per the traffic norms and as directed by Engineer.	As directed by Engineer-in-charge.
Item No.7) Providing and removing shoring in trenches wherever directed as per specifications / drawings etc. complete. Note: 1) Rate applicable shall be paid for each excavated side of trench 2) In case of leaving wood work in trenches, deduct Rs.5/- per Sq.m. or Rs.59/- per Cu.M. for not doing deshoring. (JVLR Approved rate)	As directed by Engineer-in-charge.
Item No.8) Providing soling using 80mm size trap metal in 15cm layer including filling voids with sand, ramming, watering etc. complete.	Public Works and Housing Department Standing Specification
Item No.9) Providing and laying in situ cement concrete M15 of trap metal for foundation and bedding including bailing out water manually, formwork, compacting and curing. (Cement 3.40 bags per Cum).	IMP-120 MORT&H Clause no.1000 & 1700
Item No.10) Providing and laying cement concrete pipes of NP-2 class of 300 mm diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2 complete including loading and unloading of pipes.	As directed by Engineer-in-charge.
Item No.11) Providing and laying cement concrete pipes of NP-2 class of 450 mm diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2 complete including loading and unloading of pipes.	As directed by Engineer-in-charge.
Item No.12) Providing and laying cement concrete pipes of NP-2 class of 600 mm diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2 complete including loading and unloading of	As directed by Engineer-in-charge.

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pipes.	
Item No.13) Providing Second Class Burnt Brick masonry with conventional / IS type bricks in cement mortar 1:6 in plinth incl. striking joints, racking out joints, watering and scaffolding etc. complete.	As directed by Engineer-in-charge.
Item No.14) Providing rough cast cement plaster externally in two coats to concrete / brick / stone masonry in all positions incl. preparing the base, watering and applying base coat of 12 to 15 mm thick in cement mortar 1:4 using water proofing compound at the of 1kg per 50kg of cement and rough cast treatment 12 mm thick in proportion 1:1.5:3 incl. scaffolding and 14 days curing etc. complete.	As directed by Engineer-in-charge.
Item No.15) Providing and laying in situ plain cement concrete M-20 of trap metal for foundation and bedding incl. bailing out water manually, formwork, compacting and curing.	As directed by Engineer-in-charge.
Item No.16) Bricks masonry rectangular inspection chamber of size 90 x 45 cm and depth up to 1 m on drain lines with 230 mm bricks wall in C.M. (1:2) plastered on both sides with 20 mm thick cement mortar 1:2 including 230mm cement concrete 1:3:6 bedding as per standard plan & drawing including excavation, refilling the excavated sides and removing surplus earth with 75 mm R.C.C. cover with nominal reinforcement including recess in the masonry, and with C.I steps fixed in cement mortar with cement and sand filleting with C.I. Frame and cover both together weighing not less than 102 kg.	As directed by Engineer-in-charge.
Item No.17) Providing & fixing interlocking concrete paver unishape (monolithic-single layer pre-cast concrete blocks) of gray cement colour as per technical specification, 80 mm thick having average crushing strength of 45N/sq.mm placed on average thickness of 40mm uniformly graded river sand cushioning with property compacted with mechanical compactor with required level grade and camber etc. complete as directed.	As directed by Engineer-in-charge.
Item No.18) Providing and fixing in the footpath, 60mm thick Lacquer coated (Reflective) interlocking white cement concrete pavers in red (Terra	As per MOST specification and directed by Engineer-in-charge.

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<p>Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/shape and colour having average crusting strength 40 N/mm² manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve, silica sand and with pure iron oxide ultra voilete stabilized pegment @ 5% by weight of white cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in gray cement should be 45 to 48 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.</p>	
<p>Item No.19) Supplying blue trap stones of approved quality & Providing the same in rubble packing 25cm. Thick to the required grade, level & camber, filling in voids with chips & 60 mm metal etc. compacting using mechanical vibrating compactor / 8-10 MT Roller etc. complete as specified & as directed by the Engineer.</p>	As per MOST and PWD specification.
<p>Item No.20) Providing and laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm (compacted thickness each) with sensor paver finisher on prepared sub base & compacting with vibratory roller (10 tonne) to achieve desired density including lighting, guarding barricading & maintenance of diversion etc. as directed by the Engineer. (Rebate for not using sensor paver Rs.14/- should be taken) As per MCGM Road Specifications clause No.240.</p>	As per MCGM Road Specification Clause No.240.
<p>Item No.21) Providing and laying, spreading & compacting graded crushed stone in granular sub base course including premixing the material in</p>	As per MCGM Road Specification Clause No.210.

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mechanical mixer (pug mill or approved type), spreading of mixing material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour, machinery, lighting barricading to all lifts and lead maintenance of diversion etc. complete (metal gradation from 90mm to 75mm micron as per MCGM Road specifications clause No.210).	
Item No.22) Supplying and filling sand and metal in trenches upto varied depth and watering , ramming etc. complete as directed by Engineer-in-charge. (JVLR Approved rate)	As directed by Engineer-in-charge.
Item No.23) Providing And placing M25 grade RCC precast Frame with cover over Chamber.(700 mmX 450mm) or as directed.	As directed by Engineer-in-charge.
Item No.24) Labour for miscellaneous works.	As directed by Engineer-in-charge.
Item No. 25) Excavation in road carriage ways, footpath, asphalt mixed carpet of any type or concrete plain or reinforced, upto any depth, including all lifts and depositing excavated materials in a radius of 150M. Including cutting of reinforcements manually or using pneumatic jack hammer or by any other mechanical means as specified and directed.	As directed by Engineer-in-charge.
Item No. 26) Excavation for foundation in including removing the excavated materials upto a distance of 50m beyond the building area and lift upto 1.50m stacking & spreading as directed including dewatering unless provided else where. Preparing the bed for the foundation and necessary backfilling, raming, watering complete excluding shoring and shuttering.	As directed by Engineer-in-charge.
a) earth, soil of all types, sand, gravel and soft murum.	
Item No.27) Dewatering the excavated trenches and pools of the water in building area by using 5 to 9 H.P. and other devices, including dispose of water to a safe distance as directed.	As directed by Engineer-in-charge.
Item No.28) Providing watching fencing etc. to trench excavation per running meter length of trench as per drawing and as directed by Engineer.	As directed by Engineer-in-charge.

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Item No.29) Transporting surplus materials upto 3 km excluding leveling.	As directed by Engineer-in-charge.
Item No.30) Providing and fixing the barricading in double row with G.I. sheet of 22gauge manufactured by Tata Co. and Jindal Co. fixed on 3" dia (75mm) wooden bullies which will be buried in existing road sufficiently. Embossing of Tata/Jindal Brand on G.I. sheet shall be ensured before painting with yellow and black bands of enamel paint as per the traffic norms and as directed by Engineer.	
Item No.31) Providing soling using 80mm size trap metal in 15cm layer including filling voids with sand, raming, watering etc. complete.	As directed by Engineer-in-charge.
Item No.32) Providing and laying in situ cement concrete M15 of trap metal for foundation and bedding including bailing out water manually, formwork, compacting and curing. (Cement 3.40 bags per Cum).	As directed by Engineer-in-charge.
Item No.33) Providing and laying cement concrete pipes of NP-2 class of 450 mm (18") diameter in proper line, level and slope including providing, fixing collars in cement mortar 1:2 complete including loading and unloading of pipes. (The pipes will be as per I.S.1971).	As directed by Engineer-in-charge.
Item No.34) Providing and removing steel / plywood shuttering and centering for hidden faces(Type F1) for footing, plinth beams, col. Below plinth level etc.	As per PWD specification.
Item no.35) Providing and fixing in position Mild steel bar reinforcement / Tor Steel bar reinforcement of various diameters for RCC pile caps, footings, foundations, slabs, columns, canopies, staircases, newels chajjas lintels, pardies, copings, fins, arches etc. as per detailed designs and drawings and schedules incl. cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	Public Works and Housing Dept. Standard Specification Bd-F-17, Pg.120, MORT&H Clause No.1500 & 1700
Item No.36) Providing and laying M20 controlled cement concrete with minimum cement content of 340 kg. per Cu.M. for all structural members (columns, beams, slab etc.) above plinth level including mixing, placing, consolidating, curing etc. complete excluding shuttering.	As per MOST specification.
Item No.37) P/L Precast M-20 plain C.C. slabs, 10 cm. Thick over M-10	As per PWD specification.

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C.C. Bedding 10 cm. Thick, including filling in the joints with 1:2 C.M. & pointing, curing etc. complete.	
Item No.38) Providing And placing M25 grade RCC precast Frame with cover over Chamber.(700 mmX 450mm). (JVLR Approved rate)	As directed by Engineer-in-charge.
Item No.39) Supplying and filling sand and metal in trenches upto varied depth and watering , ramming etc. complete as directed by Engineer-in-charge. (JVLR Approved rate)	As directed by Engineer-in-charge.
Item No.40) Labour for miscellaneous works.	As directed by Engineer-in-charge.
Item No.41) Excavation in road carriage ways, footpath, asphalt mixed carpet of any type or concrete plain or reinforced, upto any depth, including all lifts and depositing excavated materials in a radius of 150M. Including cutting of reinforcements manually or using pneumatic jack hammer or by any other mechanical means as specified and directed.	As per PWD & MCGM specification.
Item No.42) Transporting surplus materials upto 3 km excluding leveling.	As per PWD & MCGM specification.
Item No.43) Providing and laying, spreading & compacting graded crushed stone in granular sub base course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixing material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achiever desired density including all material, labour, machinery, lighting barricading to all lifts and lead maintenance of diversion etc. complete (metal gradation from 90mm to 75mm micron as per MCGM Road specifications clause No.210).	As per MCGM Road specification clause no.210.
Item No.44) Providing and laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm	As per MCGM Road specification clause no.240.

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(compacted thickness each) with sensor paver finisher on prepared sub base & compacting with vibratory roller (10 tonne) to achieve desired density including lighting, guarding barricading & maintenance of diversion etc. as directed by the Engineer. (Rebate for not using sensor paver Rs.14/- should be taken) As per MCGM Road Specifications clause No.240.

Item No.45) Providing and fixing in the footpath, 60mm thick Lacquer coated (Reflective) interlocking white cement concrete pavers in red (Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/shape and colour having average crusting strength 40 N/mm² manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve, silica sand and with pure iron oxide ultra voilette stabilized pigment @ 5% by weight of white cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in gray cement should be 45 to 48 mm thick having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.

Item No.46) Providing & fixing kerb stone of height 325mm., base width 165mm., top width 115mm in M20 grade RMC supplied through MCGM approved plant or concrete mixed with use of weigh batch mixers as detailed in drawing u/No.Dy.Ch.E./Rds/93/E.S. of 17/8/2005, excavation in any soil except rock, laying a leveling course of M15 grade RMC 100mm. thick, to required slope (inclusive from work) jointing in C.M.1:2 proportion flush to concrete surface, painting exposed surface with one coat of primer and two coats of 1st grade road marking paint in the yellow/white/black or any shade as directed. (Kerbstones shall be procured from MCGM

As directed by Engineer-in-charge.

As per PWD & MCGM specification.

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registered agencies) or as directed.	
Item No.47) Providing and fixing of the precast tapered water table of thickness varying from 105 to 125 mm., 300 mm. width in M20 grade RMC (Supplied through MCGM approved plant) ro concrete mixed with use of weigh batch mixers as detailed in drawing No.Dy.ChE/Rds/94/E.S. dated 17.8.2005 inclusive of excavation in any soil except rock, laying of leveling course of M15 grade RMC 100mm. thick to required slope, (inclusive of from work) jointing in 1:2 cm. prop. flush to concrete surfaces as directed (Water tables shall be procured from MCGM registered agencies only)	As per PWD & MCGM specification.
Item No.48) Providing and laying, spreading & compacting graded crushed stone in granular sub base course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixing material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achiever desired density including all material, labour, machinery, lighting barricading to all lifts and lead maintenance of diversion etc. complete (metal gradation from 90mm to 75mm micron as per MCGM Road specifications clause No.210).	As per MCGM Road specification clause no.210.
Item No.49) Providing and applying TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.25 to 0.30 Kg. of Sq.mt. over prepared surface to receive bituminous mix by applying TACK COAT mechanical spray bitumen, including cleaning of road surface etc. completed, as directed For GRANULAR SURFACES Treated with PRIMER (Clause No.314).	As per PWD & MCGM specification and directed by Engineer-in-charge.
Item No.50) Providing & Laying premix hot mix Bituminous Macadam with 3.30% (with tolerance of ± 0.3) of 60/70 pen. Bitumen by weight of mix using reconditioned milling material to the required grade, level & camber, rolling with 10/12 tonnes power roller, vibratory roller & sensor paver complete as specified & as directed to thickness of 75mm. with antistripping agent 1% by weight of bitumen. (Using reconditioned milling material 30%)	As per New Road specification clause no.380.

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(As per New Road Specifications Clause No.380).	
Item No.51) Providing and applying TACK COAT with CATIONIC BITUMEN EMULSION (RS) @ 0.25 to 0.35 Kg. to Sq.mt. over prepared surface to receive bituminous mix by applying TACK COAT with mechanical spray bitumen, including cleaning of road surface etc., completed, as directed For DRY & HUNGRY BITUMINNOUS SURFACES (As per New Road Specifications Clause No.314).	As per New Road specification clause no.314.
Item No.52) Providing & Laying premix hot mix bituminous concrete with 6.00% of 60/70 Pen bitumen content by weight of mix surface coat to compacted thickness of 40 mm. using new material to the required grade, level and camber rolling with vibratory roller, power roller, pneumatic roller & using sensor paver etc. complete as specified and as directed with addition of lime filler 2% by weight of mix and anti stripping agent @ 1.00% of bitumen etc. (As per New Road Specifications Clause No.364)	As per New Road specification clause no.364.
Item No.53) Excavation in road carriage ways, footpath, asphalt mixed carpet of any type or concrete plain or reinforced, upto any depth, including all lifts and depositing excavated materials in a radius of 150M. Including cutting of reinforcements manually or using pneumatic jack hammer or by any other mechanical means as specified and directed.	As directed by Engineer-in-charge.
Item No.54) Supplying blue trap stones of approved quality & Providing the same in rubble packing 25cm. Thick to the required grade, level & camber, filling in voids with chips & 60 mm metal etc. compacting using mechanical vibrating compactor / 8-10 MT Roller etc. complete as specified & as directed by the Engineer.	As directed by Engineer-in-charge.
Item No.55) Providing and laying, spreading & compacting graded crushed stone in granular sub base course including premixing the material in mechanical mixer (pug mill or approved type), spreading of mixing material in uniform layer of 100mm to 75mm (compacted thickness each) with motor grader or paver on prepared murum surface & compacting with 10 tonne vibratory roller to achieve desired density including all material, labour,	As per MCGM Road specification clause no.210 & PWD specification.

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<p>machinery, lighting barricading to all lifts and lead maintenance of diversion etc. complete (metal gradation from 90mm to 75mm micron as per MCGM Road specifications clause No.210).</p>	
<p>Item No.56) Providing and laying, spreading & compacting graded crushed stone aggregate to wet mix macadam satisfaction including premixing the material with water to OMC in mechanical mix (pug mill) carriage of mix material by tipper to site laying in uniform layer of 75mm to 100mm (compacted thickness each) with sensor paver finisher on prepared sub base & compacting with vibratory roller (10 tonne) to achieve desired density including lighting, guarding barricading & maintenance of diversion etc. as directed by the Engineer. (Rebate for not using sensor paver Rs.14/- should be taken) As per MCGM Road Specifications clause No.240.</p>	<p>As per MCGM Road specification clause no.240.</p>
<p>Item No.57) Providing & fixing interlocking concrete paver unishape (monolithic-single layer pre-cast concrete blocks) of gray cement colour as per technical specification, 80 mm thick having average crushing strength of 45N/sq.mm placed on average thickness of 40mm uniformly graded river sand cushioning with property compacted with mechanical compactor with required level grade and camber etc. complete as directed.</p>	<p>As directed by Engineer-in-charge.</p>
<p>Item No.58) Providing and fixing in the footpath, 60mm thick Lacquer coated (Reflective) interlocking white cement concrete pavers in red (Terra Cotta) Black, Brown, Lemon Yellow or any colour with vermeticular or any antiskid texture on top surface of approved pattern/shape and colour having average crusting strength 40 N/mm² manufactured in double layer precast concrete blocks. The top layer of paver block should be 12 to 15 mm thick and consist cubical shape stone aggregate 8 mm size sieve 100% passing and retain on 4.75 mm size sieve, silica sand and with pure iron oxide ultra voilete stabilized pegment @ 5% by weight of white cement and should be coated with lacquer having hard, high abrasive resistance and water repellent. The bottom layer in gray cement should be 45 to 48 mm thick</p>	<p>As directed by Engineer-in-charge.</p>

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having 12 mm size sieve 100% passing aggregate as per technical specification placed on uniformly graded river sand cushioning of average compacted thickness 25mm properly compacted with mechanical compactor with required level, grade and camber etc. complete as specified and as directed by the Engineer.	
Item No.59) Transporting surplus materials upto 3 km excluding leveling.	As directed by Engineer-in-charge.
Item No.60) Labour for miscellaneous works.	As directed by Engineer-in-charge.

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DRAWINGS

DRAWINGS

