

SECTION 10

SPECIFICATIONS

Brihanmumbai Municipal Corporation

Solid Waste Management- Planning

Subject: Supply, Operation & Comprehensive Maintenance of deep cleaning machines i.e. Electric Road Sweeper for road sweeping, Electric High Pressure Road Washing & Sweeping Machine for cleaning roads and Dust Suppression Machine for the period of 07 years.

1. Preamble :

Brihanmumbai Municipal Corporation of has some of the obligatory duties like Waste Management which consisting, daily cleaning and sweeping of roads, footpaths, and public places etc. likewise collection and transportation of waste from designated collection points and vulnerable points from accessible and inaccessible areas respectively to maintain cleanliness and hygiene in the area. To carry out such types of obligatory duties, SWM department has comprises the huge Manpower, vehiculation, and various types of equipment for it. While practicing daily cleaning activities, it is learned that some of the locations/ spots are inaccessible and vulnerable where cleaning activity could not be performed easily. To maintain cleanliness in these areas, most of the cleaning activities are carried out with help of labour staff. Also, these places are difficult to perform manual cleaning, laboured and time consuming. To overcome of this, BMC has continuously adopting various types of modern and innovative technologies like mechanical power sweeping, underground bins, closed body and compactor vehicles, etc. to perform day-to-day cleaning activity efficiently

To improve air pollution control and public cleanliness in Mumbai, Brihanmumbai Municipal Corporation has taken up a Deep Clean Drive on the initiative of Hon. Chief Minister. Advance machineries are used in this campaign. Based on that, the work of road cleaning, water washing of all major and internal roads in Mumbai city and suburbs is carried out by

BMC. In addition to this, the idea of dust suppression machine has come up, as a solution to overcome the problem of air pollution.

2. SCOPE OF WORK & GENERAL GUIDELINES ABOUT WORK :-

This is a project of cleaning/washing area of Roads and dust suppression in BMC limits. The scope of work will be cleaning of entire road by deep cleaning machines. Entire road shall be washed daily deep cleaning machines as mentioned in the tender. During Monsoon period, bidder shall provide the services as per requirement of ward authority or indent provided by A.E.(S.W.M) of concern ward. The bidder shall access the requirements of machine, equipment's, tools and tackles and other details required carrying out entire work satisfactory. The following types of machines are used in this project.

| Sr. No. | Machines | No. of Unit | Min. Manpower required on each machine |
|----------------|--|--------------------|---|
| 1 | Electric Road Sweeper | 14 | Driver – 1 Co-driver cum operator-1 |
| 2 | Electric High Pressure Road Washing & Sweeping Machine | 14 | Driver – 1 Co-driver cum operator-1 Attendant-1 |
| 3 | Dust Suppression Machine | 14 | Driver – 1 Co-driver cum operator-1 Attendant-1 |

SCOPE OF WORK:

The scope of work comprises of two parts as mentioned below,

Part A: Supply of Electric Road Sweeper for road sweeping, Electric High Pressure Road Washing & Sweeping Machine for cleaning roads and dust suppression machine as mentioned in BOQ.

Part B: Operation & Comprehensive Maintenance of Electric Road Sweeper for road sweeping, Electric High Pressure Road Washing & Sweeping Machine for cleaning roads and Dust Suppression Machine for 07 years.

3. Technical Details:-

A) Electric Road Sweeper - The minimum technical specifications of Electric Road Sweeper are as under.

Table no.(1)

| Sr. No. | Description | Specification |
|----------------|-------------------------|----------------------|
| 1 | Battery Volume (kWh) | 41.2 |
| 2 | Battery Type | Lithium Ion Battery |
| 3 | Max. working Time (h) | 8 |
| 4 | Max. Cleaning Width (m) | 2.2 |
| 5 | Working Speed (km/h) | 0-12 |
| 6 | Water Tank Volume (L) | 300 |
| 7 | Garbage Tank Volume (L) | 1900-2000 |
| 8 | Cleaning Efficiency (%) | ≥97 |
| 9 | Dimension (LxWxH) (mm) | 4390 x 1500 x 2260 |

B) Electric High Pressure Road Washing/Sweeping Machine:- The minimum technical specification as follows.

Table no.(2)

| Sr. No. | Description | Specifications |
|----------------|-----------------------------|-----------------------|
| 1 | Dimensions (mm) | 8850×2540×3040 |
| 2 | Driving Motor Power (kw) | 180 |
| 3 | Battery Power (kWh) | 210 |
| 4 | GVW (kg) | 18000 |
| 5 | Curb Weight (kg) | 12665 |
| 6 | Sweeping Width (m) | 3.5 |
| 7 | Sweeping Speed (km/h) | 3-20 |
| 8 | Water Pump Pressure (Mpa) | 10 |
| 9 | Garbage Tank Volume (Cu.M) | 7 |
| 10 | Clean Water Tank Volume (L) | 7000 |

C) Dust suppression-misting unit- The minimum technical specifications as follows.

Table no.(3)

| Sr. No. | Description | Specifications |
|----------------|------------------------|-----------------------|
| 1 | Dimensions (mm) | 9680 x 2520 x 3865 |
| 2 | Battery Capacity (kWh) | 210 |
| 3 | GVW (kg) | 18000 |
| 4 | Curb Weight (kg) | 12450 |
| 5 | Wheel base (mm) | 5300 |
| 6 | Flushing Width (m) | ≥ 24 |

| | | |
|----|-------------------------|----------|
| 7 | Sprinkling Width (m) | ≥ 16 |
| 8 | Misting Range (m) | 100 |
| 9 | Height (m) | 30 |
| 10 | Pitching Angle (degree) | -10°-60° |
| 11 | Rotation Angle (degree) | -90°-90° |
| 12 | Water Tank Volume (L) | 11000 |

4. Travel Speed:

The Machine shall have a suitable drive for constant travel speed without operating the clutch and without affecting the performance of the machine.

The Travel speed of the machine during operation is mentioned in the table below.

| Sr. No. | Description | Travel Speed in Km/ Hr |
|----------------|---|-------------------------------|
| 1 | Electric Road Sweeper for road sweeping | 0-12 |
| 2 | Electric High Pressure Road Washing & Sweeping Machine for cleaning roads | 3-20 |
| 3 | Dust Suppression Machine | As per requirement |

5. Control Panel:

All the gauges, switches, levers required for the operation of various systems fitted on the machine shall be grouped in control panel mounted on the rear side of the vehicle.

6. Painting:

The entire unit shall be painted with 2 coats of superior quality anti-corrosive primer with 2 coats of paint of reputed make. The whole painting shall be carried out as per manufacturer's manual or as per prevailing IS standards.

7. Lighting arrangement:

The machine shall be provided with suitable lighting arrangement for working during night time.

8. Tools & tackles:

Each machine shall be supplied with all necessary tools & tackles for operation & maintenance of the machine including chassis.

Each machine shall consist of all necessary parts, accessories which are not specifically mentioned in the specifications & which are necessary for satisfactory operation & maintenance of machine for the purpose intended and no extra cost on any account will be admissible at any stage.

9. Vehicle Tracking System:-

- i. The successful tenderer shall liable to install VTMS & GPS units with allied IOT devices on the vehicle/machine.
- ii. The contractor shall confirm the VTMS & GPS devices with IT department and (SWM)Planning department so as units shall be compatible with software develop by the BMC before installation on vehicle/machine.
- iii. BMC is free to ask to change the VTMS/GPS unit of revised specification or system to successful contractor if required.
- iv. The contractor has to provide, install & maintain the Vehicle Monitoring system(VTMS) & GPS units to be functional throughout the contract period.
- v. The VTMS & GPS unit with all IOT devices should be compatible with server & Software developed by BMC. The devices will work in sync with the BMC's VTMS software.
- vi. The performance of the work will be evaluated on the basis of reports generated from VTMS & other IOT devices.
- vii. If the VTMS is turned off, Rs.1000/- per day per unit will be imposed & levied in monthly bill.
- viii. Due to technical problem like, low or out of network, unexpected damages of the GPS machine, if VTMS system could not show/generate data for 1 to 3 days, and contractor has completed the work by machine then the payment will release with sanction of Dy.Ch.E.(SWM)Operation put up through Zonal Ex.Eng.(SWM).
- ix. If VTMS data should not show/generated for more than 4 days to a month & contractor has complete the work by machine then the payment for the said period will be released with sanction of officer not below the rank of Chief Engineer or any other officer authorized by Chief Engineer put up through Zonal Ex.Eng.(SWM).

10. Standards:-

The material used for fabrication of the machine parts/accessories shall meet the relevant standards.

The machine shall meet permissible limits for noise & safety standards. If required acoustic enclose/safety guards shall be provided to the units of machine wherever required.

11. Approval:-

After award, the contractor will have to furnish General arrangement drawing of the machine for approval of the BMC engineer before starting the work. The make & model of high-capacity centrifugal fan, high-pressure washing Pump, Hydraulic Pump, Hydraulic motors, Hydraulic Cylinders, P.T.O., etc. shall be specified in the G.A. drawings.

12. Nomenclatures:-

Number plates, stop-signal plate, "BRIHANMUMBAI MUNICIPAL CORPORATION", CHIEF ENGINEER SOLID WASTE MANAGEMENT', "ELECTRIC ROAD SWEEPER, ELECTRIC HIGH PRESSURE ROAD WASHING& SWEEPING MACHINE, DUST SUPPRESSION MACHINE" or and as directed by BMC authority, it shall be painted on the machine in suitable font size at proper places as per R.T.O.'s requirements and/or as directed by the BMC engineer.

13. R.T.O. Registration:-

These machines shall be designed, fabricated and provided in accordance with requirement and regulations of Regional Transport Office (RTO) Authority. It will be responsibility of contractor to get the machine approved and registered from RTO authority as a standard vehicle as per MVR. The permanent registration, Annual Fitness renewal & PUC shall be carried out by the contractor. All the charges, fees etc. shall be borne by the contractor during entire contract period.

14. Inspection & Testing

Inspection of Unit: The contractor shall inform the Department well in advance for pre delivery inspection of the complete Electric Road Sweeper for road sweeping, Electric High Pressure Road Washing & Sweeping Machine for cleaning roads and dust suppression machine. The inspection and testing of machines at manufacturer's works shall be witnessed by two Municipal Engineers. The contractor shall issue certificates for the satisfactory performance of the individual Units as well as for complete machine. The certificates of the materials used for fabrication of tank and other vital components shall also be furnished. The noise level shall be

measured as per relevant IS Standard. The machine shall not be cleared for delivery/dispatch if it does not meet the prescribed technical specifications.

The inspections shall be carried out by two BMC Engineers from Solid Waste Management Department. The charges for inspection and testing of above all shall be borne by the contractor. All expenses of to & from travelling, lodging & boarding of BMC inspection team shall be borne by the contractors & no separate payment on this account will be admissible.

15. Service Centre Facility:-

The Manufacturer shall have after Sales Service facility within the vicinity of Mumbai Metropolitan Region. The bidder shall submit the documentary proof for the same from the Manufacturer along with spare parts and service support for a period of seven years.

16. Handing over of Machines:-

After purchasing of the Machines the same will be handed over to the contractor for operation and comprehensive maintenance for a contract period of 7 years. After completion of contract period the contractor shall handover the Machines to BMC in good working condition without any cost to BMC failing which the SD /CD shall not be released to the contractor.

17. Delivery Period:

A. Supply –The contractor shall supply Electric Road Sweeper for road sweeping, Electric High Pressure Road Washing & Sweeping Machine for cleaning roads and dust suppression machine within Eight (08) Months from the date of receipt of LOA by the contractor. The contractor shall place confirmed order to chassis manufacturer/authorised dealer within 30 days from date of receipt of work order / LOA from BMC & submit the copy of the same to BMC.

B.- Services of Operation & Maintenance -The supplied Electric Road Sweeper for road sweeping, Electric High Pressure Road Washing & Sweeping Machine for cleaning roads and dust suppression machine for seven years i.e. for 84 Months from the date of for O & M as per general & technical specification 10.0.

18. Guarantee:-

The machines shall be guaranteed for 12 months from the date of delivery. During the guarantee period, any defect / break-down of machine including chassis shall be attended and rectified / replaced immediately without any extra cost to BMC. This clause shall be read with the other clauses of guarantee and maintenance guarantee stipulated in general terms and conditions and special instructions. It is responsibility of the contractor to

get the faults attended/ rectified under guarantee through the respective manufacturer/dealer.

19. Operation & Maintenance Manuals:

The contractor shall supply following with the delivery of machine:

One set of operation & maintenance manual of each set of machine.

One set of spare parts catalogue of each set of machine.

20. Operation & Maintenance Services

1 Operation:-

1.1 The contractor who will supply the Electric Road Sweeper for road sweeping, Electric High Pressure Road Washing & Sweeping Machine for cleaning roads and Dust Suppression Machine shall provide the services of operation and comprehensive maintenance of the supplied machines for a Period of 7 years.

1.2 Each Machine to be operated daily. On anyone working day in a week, the Machine shall be taken for carrying out necessary preventive maintenance. The Payment will be made for operational shift only. No separate cost of maintenance shift will be paid to the contractor.

1.3 All consumables, spares, fuel, Staff, etc. required for day-to-day operation & Comprehensive maintenance of the machine shall be arranged by the contractor.

1.4 The Machines will be operated in BMC limits at various locations in City/Eastern & Western divisional wards as per instructions and the program given by AE SWM concerned ward /Zonal Executive Engineer/ Dy.Ch.E (SWM) Operation.

1.5 During operation and maintenance period, the machines including chassis shall be maintained in an approved manner and in accordance with manufacturer's recommendation. Major breakdowns like exhauster, vacuum pump, transmission system, engine, suction system shall be attended so as to put machine back in operation not more than 15 days. Breakdowns due to accidents, force majeure, RTO passing work, major refurbishment work etc. machine repair time frame will be decided at the discretion of concerned Ex. Eng. In such cases, the contractor may deploy the standby machine of similar or higher capacity with prior

approval of concerned Ex. Eng. at his own risk and cost to complete daily work targets as per department's requirement for which contractor will be eligible to get per shift payment as per applicable rate and no penalties will be imposed for the above breakdown period.

1.6 The operational staff shall adopt all precautionary safety measures as per the guidelines of Hon'ble Court while operating the machine.

1.7 During emergency situation, the contractor shall render operation services continuously day & night.

1.8 The contractor shall provide the services in any of the wards other than specified in scope of work in Mumbai City/Suburbs with prior instructions from Zonal Executive Engineer.

1.9 The log sheets shall be prepared at the end of every shift after completion of work. The contractor shall maintain their copies and submit to BMC Engineer at the end of every month or shall be produced whenever asked by the concerned ward Engineer.

1.10 If the operation of the vehicle will be required at any time on any day including Sundays & Holidays in addition to the routine program it would be responsibility of the contractor to provide the vehicle with staff to attend the work as directed by concerned Engineer.

1.11 In case of any accident due to non-compliance of safety norms/ equipments, the contractor shall be held responsible.

1.12 If the Machine is out of order for a full shift, the contractors will have to operate the machine for additional shifts & complete the desired target.

The 365 shifts per machine in the current year shall be utilized before end of the year. The balance shifts in the current year after completion of current year will get lapsed automatically and then the next year's shifts will be utilized as per the per shift rate of the next year. But if extra shifts (more than 365 shifts per machine) will be required in current year, the same will be carried out as per the shift rate of that year.

1.13 If required, the contractor may have to operate & maintain machines for 25% additional no. of shifts at the end of contract and as per instructions of BMC Engineer at the last year's per shift rate and as per terms & conditions of this contract.

The O&M shall be started within 15 days of intimation after delivery of each machine.

- 1.14** During operation and maintenance, contractor shall provide at their own cost spares including tyre, battery, lubricants, consumables, tools, tackles etc. and necessary manpower.
- 1.15** The contractor will have to operate and carry out regular servicing, routine maintenance, breakdown & repair maintenance, overhauling and pre RTO Fitness passing of these machines in good workmanship like manner following best engineering practice so as to have smooth functioning of the machines all the time. As such minor breakdowns may be attended directly on field while for major breakdowns, routine maintenance and overhauling may be carried out at their workshop. The traveling/transport and other incident expenses for attending breakdown on site shall be borne by the contractor.
- 1.16** The machines shall be stationed as directed by BMC Engineer considering site condition, after completion of daily work. If the machines are stationed at any suitable location, the open space required for parking of the vehicle & the site chowky will be made available at free of cost by BMC. The successful bidder at his own cost will make arrangements for the temporary site chowky in coordination with BMC staff.
- 1.17** The contractor shall make sufficient stock of spares, lubricants & Consumables in order to attend breakdowns quickly without any loss of time. Also, the contractor shall provide at site, tools required for operation as per site requirement.

2 Maintenance:

- 2.1** The maintenance guarantee period of all the machines is 8 years. The contractor shall carry out necessary maintenance & repairs of the machines without claiming any extra cost to the BMC.

- 2.2** The contractor shall carry out the preventive / routine maintenance of all the vehicle, machines, equipments, etc. on any one day of the week. The contractor shall carry out the breakdown maintenance of vehicle, machines, equipments, etc as and when required. No extra payment towards all types of maintenance work shall be made to the contractor.

- 2.3** The contractor shall carry out regular servicing, routine maintenance, breakdowns, repairs of the machines and keep it in good working condition following best engineering practices, so as to ensure smooth functioning of this machines at all the times.

- 2.4** It shall be the responsibility of the contractor to provide all

necessary man power, tools & tackles & spares for maintenance purpose of the machine.

2.5 When the machine is non operative on account of break down, the successful contractor shall always attend the break downs immediately so as to keep the breakdown time of these machines as low as possible.

2.6 During breakdown periods no payments will be admissible for the machine.

2.7 The contractor shall also maintain the Maintenance Register separately and it shall be made available whenever demanded.

21.0 **Working Hours:** The duty hours for the operating staff shall be of 8 hrs shift & scheduled as per the requirement of Ward staff. The normal working hours for maintenance staff shall be 8.00 a.m. to 6.00 p.m. However, for any backlog of maintenance, the same shall be cleared in extra hours or on Sundays and Holidays without any financial implications to BMC.

22.0 **Contractor's staff for operation & maintenance:** For the operation & maintenance work, contractor shall engage adequate work force, skilled and experienced in their respective trades. For this purpose, contractor shall engage drivers cum operators and other artisans as may be necessary for satisfactory maintenance of the machineries as a whole. Contractor shall furnish list of various categories of staff which he will engage for satisfactory operation & maintenance of these machines as per tender specifications of tender document. The driver cum operators shall possess valid driving license issued by R.T.O. Authority.

23.0 The maintenance staff shall be fully conversant with the servicing & maintenance of these machines. All the staff shall wear uniform with Photo Identity card while on duty, the same shall be provided by the contractor.

24.0 **Supervision:** The operation of these machines may be scattered in 24 wards The contractor shall liaise with BMC officers for operation of these machine during the Operation & maintenance period. The contractor shall fully cooperate and interact with other agencies/authorities at site, if involved.

25.0 **Penalty:**

Supply:- Clause 82 of GCC.

Services of Operation & Maintenance:-

For not complying with the documents and equipment within three weeks from the date of intimation of O&M, a penalty of Rs.5,000/- per day per machine shall be imposed and recovered from the contractor's bill.

For failing to start the O&M within two weeks from the date of intimation of O&M, a penalty of Rs. 5,000/- per day per machine shall be imposed and recovered from the contractor's bill.

If the machine is under breakdown for maintenance purpose for more than the period specified in para 20.1.5, a penalty of Rs.5,000/- per day & if the machine will not be operated for any other reasons like absenteeism of operator, staff etc., a penalty of Rs.2,000/- per shift will be recovered from the monthly bills. No operational payment shall be admissible when the machine is non-operative

During inspection rounds of BMC engineers, if any staff is found without uniform, identity card & safety gadgets, a penalty of Rs.2,000/- for each incident will be recovered from the bills.

During inspection rounds of BMC engineers, if the staff is not found on duty, a penalty of Rs.2,000/- for each incident will be recovered from the bills.

If the machine is not handed over to MCGM, after completion of O&M period, within specified period, a penalty of Rs.5,000/- per day will be imposed.

Payment is not admissible to the contractor when the machine is not in operation due to any reason.

26.0 Security deposit:

Section 6-Instructions to applicants.

27.0 Compliance of Labour Regulation: During the period of this contract, the contractor at his own cost, shall abide at all times, by the Government's Labour regulations, Rules, Laws etc. amended from time to time and as may be in force or introduced in future, during the course of this contract, by registering with all such statutory authorities, filling returns, as may be required, as per the laws.

- 28.0 Minimum Wages Act-1948:** The contractor shall submit an Undertaking on Rs.500/- stamp paper stating that they are paying their staff as per Minimum Wages Act-1948, revised by the GOM and adapted by BMC from time to time. They shall submit the wage details to B.M.C.
- 29.0 Safety and Protection:**
- 29.1** During execution of this work, the contractor shall take all necessary safety measures to avoid any accidents / mishaps / thefts. Any injuries / accidents / thefts / damages to Municipal Properties shall be the sole liability of the contractor and the compensation shall be paid by the contractor to his staff as per the Workmen Compensation Act. BMC shall not be held responsible for any such acts / cases. The contractor shall provide necessary safety wear to their staff such as safety shoes, welding glass, hand gloves, gumboots etc. as applicable. Contractors shall not cause any damage to municipal machineries and properties. If so, the same will be recovered from their monthly bills.
- 29.2** All the arrangement towards watch & ward of the machine handed over to the contractor will have to be made by the contractor. BMC will not be held responsible for any damage, loss or theft of the same.
- 29.3** Contractor shall keep First Aid Box in the vehicle/chowkey filled with necessary medical aids & medicines all the time during contract period.
- 29.4** The contractor's staff may have to work near garbage, litter etc. Hence, the contractor shall conduct periodical health check ups of his site staff and take necessary precautionary measures and treatments as per the advices of medical officers.
- 30.0 Insurance:**
- 30.1** The contractor will have to take out Workmen Compensation Insurance Policy so as to provide adequate cover for the execution of this work, from the concerned Government Undertakings only & submit the copy of the insurance papers within 30 days from the placement of work order.
- 30.2** In case of accident during the entire contract period, the contractor shall be liable to pay entire compensation due.

31.0 Records:

Contractor solely shall maintain proper records of the utilization of the Machines in their possession and their details of servicing, maintenance of this machine carried out by them as per format and instructions of site engineers.

32.0 Termination of contract:

In opinion of the engineer if the contractor at any time makes default in proceeding with the work with due diligence, default in compliance of any terms and conditions, fails to complete the work or items of the work, all such acts amount to default by contractor. In each default, the engineer shall issue notice to contractor to show desired improvement, within 15 days, failing which the contract of defaulting contractor will stand terminated and any other contractor who will be directed by the Chief Engineer (SWM) can commence the remaining work after notice period, at the risk and cost of the original contractor. Action will also be taken to the extent of blacklisting and deregistration of contractor.

33.0 Payment of Taxes: Clause 36 of GCC.

34.0 Term of Payment:

34.1 Supply:-

The 90% payment for supply of all machinery shall be made after successful trial for a period of 15 days from the date of receipt of registered vehicles at the premises of BMC. During these 15 days, the contractor shall rectify the defects observed in the machines. The payment shall be processed after 15 days of successful trial as per due procedure of BMC i.e. within 30 days on receipt of bill, after satisfactory completion of the supply. Remaining 10% payment will be released after successful completion of first year contract period of operation & maintenance.

34.2 Services of Operation & Maintenance:-

34.2.1 The payment for operation & maintenance shall be made as per the per shift rate quoted for respective years by the contractor.

- 34.2.2** The payment shall be made on monthly basis within 30 days from the date of receipt of bill with monthly logsheets and summary sheets duly signed by concerned Municipal Engineers, in duplicate to the office of Soild Waste Management Dept.
- 34.2.3** No payment shall be made to the contractor if the machine will not be utilized by BMC.
- 34.2.4** The successful bidder has to maintain the machines in excellent conditions throughout the contract period in order to safeguard the interest of B.M.C. and to ensure quality work time to time etc.
- 34.2.5** Zonal Ex. Eng.(SWM) / AE(SWM) Ward shall verify the VTMS or other IT System Reports. Accordingly, same shall certify with the payment for operation & maintenance will be made every month on submission of bills, after satisfactory working of equipment, within 30 days.
- 34.2.6** The contractor shall submit details of ESIC, P.F. and wages paying to his staff as per Minimum Wages Act-1948, revised by the GOM and adapted by BMC from time to time, along with Monthly Bills.
- 34.2.7** After certification, the contractor/ward authority shall submit bills to Dy.Ch.E.(SWM) Planning division for the release of payment.
- 35.0** **Dispute:** In case of any dispute during course of execution of this work, the same shall be referred to M.C., B.M.C. whose decision will be final and binding on the contractor.

Terms and Conditions of the Tender:

1. The tyre, battery, consumables, spares, staff, etc. required for the operation of the machine shall be arranged by the contractor at their cost. No payment shall be made by this department in this regard.
2. The contractor shall appoint adequate manpower for subject operation and comprehensive maintenance work.
3. Each Machine shall be operated daily. On any one working day in a week, the Machines shall be taken for carrying out necessary preventive maintenance. The Payment will be made for the operational shift only. No separate cost of maintenance shift shall be paid to the contractor.
4. The machines shall be stationed/parked at a place as directed by the Municipal Engineer after the completion of daily work. The open space required for parking of the vehicle will be made available free of cost by this department.

5. For the purpose of maintenance, the electricity will be arranged by contractor at his own cost and water will be made available free of cost by this department. The contractors will be responsible for the safe upkeep and security of the machines.
6. The contractor shall carry out all the works as per R.T.O. norms for fitness certificate passing of R.T.O. The contractor shall inform in advance regarding R.T.O. passing of the vehicle to the Municipal Engineer. Every year a machine shall be released for one week to carry out all fitness-related work and obtain a fitness certificate.
7. The contractor shall follow all site and personal safety norms while working on the Machines. The department will assign the work of one shift of 8 hours to the contractor per day per machine. The shift time will start from the time when vehicles leave its parking place till the same reach back parking place after on-site work and garbage dumping on the nominated place of the Municipal Corporation.
8. The contractor shall follow the guidelines from the Municipal Engineer and pass on the orders to the operating staff.
9. The Water required for washing of Roads and dust suppression shall be made available free of cost by BMC.
10. The contractor shall maintain the Machine in good working conditions. The work of weekly maintenance shall be carried out to keep them in good working conditions. In case of a breakdown or abnormal working of the machine at the site, the contractor shall repair it immediately. Tools and tackle required for such routine and weekly maintenance shall be made available by the contractor.
11. The successful bidder will follow labour laws, the Minimum Wages Act, and other applicable laws. The manpower will be paid by the contractor as per the Minimum Wages Act, rates defined by the Government from time to time will be applicable.
12. The vehicle shall have a valid pollution control certificate (PUC) at all times and copies of the same shall be kept with the driver and shall be provided whenever demanded.
13. After completion of this contract all the vehicles/machinery should be handed over to this department in good working condition. The fitness test-worthy vehicles will be considered vehicles in good working condition.

36. Instruction to the Tenderer –

1. The contractor shall depute his supervisory staff to look after the work throughout the operation. It is the contractor's responsibility to safeguard

the machinery hence, contractors are advised to make an arrangement of security themselves to look after the same at their own cost.

2. The contractor shall have telephone / mobile phone facility at site for quick and proper communication, at their own cost.

3. The successful contractor shall provide at his own cost all necessary protective gears, uniforms, identity card as per site requirement. No operators will be allowed to work without being provided with protective gears & uniforms.

4. The Corporation reserves the right to terminate the contract after giving 30 days notice without assigning any reason and contractor shall have no claims whatsoever.

5. Electricity supply and all the material required for successful completion of the work shall have to be arranged by the contractor at his own cost.

6. It will be the total responsibility of the successful contractor to maintain the requisite documents, registers, wage cards, daily attendance muster, service records including P.F. gratuity etc. reference applicable & submit the returns regularly to the statutory authority as per requirement & necessity at his own cost.

7. The successful tenderer shall carry out the said work fully as per the specifications, noting the site conditions and instructions of BMC Engineer in-charge of the work.

8. The tenderer shall visit the site first and get acquainted with the quantum and type of work before quoting. Ignorance of site conditions shall not be accepted as basis for any claim for compensation. The submission of tender by him will be construed as evidence that such prior examination is made and any later claims / disputes in regard to prices quoted shall not be entertained or considered.

9. All the Machines, Vehicles, Manpower, Material required for successful completion of job shall be provided by the contractor under this contract, at their own cost.

10. All Tools, Tackles and equipment including water hoses, electric cable from electric supply source to actual site of working shall be provided & deployed by the contractor at their own cost.

11. The contractor shall ensure that all the safe working method are adopted & shall use suitable safety equipment while execution of work. Any mishap occurrence shall be fully on account of contractor and BMC will not be responsible for it. The contractor shall indemnify the BMC if any reason/cost/compensation/penalty arises as enforced by statutory bodies of GOM/GOI.

12. The contractor shall ensure that the entire work performed peacefully without causing any disturbance between themselves or with other agencies. The regular working shall not be disturbed. Any damage to Municipal property shall be recovered from the contractor along with the heavy penalty.

13. No accommodation for the work force of contractor's personnel or protection for his material shall be provided. Contractor shall make his own arrangement at his own cost.

14. All the arrangement towards watch and ward of the plant equipment, material brought at site will have to be made by the contractor, at his own cost. The BMC will not be responsible for damage, loss or theft of the same.

15. Contractor shall extend full co-operation & interaction with other agencies at site, if involved

16. The successful contractor shall take utmost care not to cause any nuisance due to noise, welding, fabrication, etc. All proper precautions shall taken by them in this respect.

17. No escalation in the cost of whatsoever nature will be allowed while completing these works except as stated below:-

| Year | Rate in Rs. |
|-------------|---|
| 1st Year | As per Rate Quoted per day for 1st Year |
| 2nd Year | As per Rate Quoted per day for 2nd Year |
| 3rd Year | Rate Quoted per day for 2nd Year x 1.05 |
| 4th Year | Rate Quoted per day for 2nd Year x 1.10 |
| 5th Year | Rate Quoted per day for 2nd Year x 1.15 |
| 6th Year | Rate Quoted per day for 2nd Year x 1.20 |
| 7th Year | Rate Quoted per day for 2nd Year x 1.25 |

Sd/-

Dy.Ch.E.(SWM)Planning