BEFORE THE NATIONAL GREEN TRIBUNAL,

WESTERN ZONE BENCH PUNE

ORIGINAL APPLICATION NO. 60 OF 2019 (WZ)

Ganesh Dadarao Anasane … Applicant

Versus.

Amravati Municipal Corporation & Ors. … Respondents

COMPLIANCE AFFIDAVIT ON BEHALF OF THE RESPONDENT NO. 1 IN TERMS OF THE ORDER DATED 22.09.2020 PASSED BY THIS HON'BLE TRIBUNAL

PAPER BOOK

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Date : 09.06.2021

N.R.S. No. 1867/2021
Date : 12.5.2021

BEFORE THE NATIONAL GREEN TRIBUNAL,

WESTERN ZONE BENCH PUNE

ORIGINAL APPLICATION NO. 60 OF 2019 (WZ)

Ganesh Dadarao Anasane ...Petitioner

V.

Amravati Municipal Corporation & Ors. ...Respondents

NOTARY S. S. JAJU DIST. AMRAVATI MAHARASHTRA REGD.No.15679 Expiry Dt. on 27-11-2024 GOVT. OF INDIA

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COMPLIANCE AFFIDAVIT ON BEHALF OF RESPONDENT NO. 1 IN TERMS OF THE ORDER DATED 22.09.2020 PASSED BY THIS HON'BLE TRIBUNAL

I, Mr. Shrikant Ishwarsingh Chauhan, Age: 34 Years, Occupation: Law Officer, Amravati Municipal Corporation, Having Office At: Rajkamal Chowkh, Amravati 444 603, District: Amravati, Maharashtra, do hereby state on solemn affirmation as:

1. That, I am the Authorized Representative of the Respondent No. 1 i.e. Amravati Municipal Corporation and as such, well versed with the facts and circumstances arising in the present O.A. No. 60 of 2019 (WZ) and therefore competent to swear the present affidavit on behalf of the Respondent No. 1 before this Hon'ble Tribunal. Previously, in reply to the contentions raised by the Applicant in O.A. No. 60 of 2019 (WZ), I, on behalf of the Respondent No. 1 have filed affidavits dated 27.12.2019, 17.01.2020 and 18.04.2020 before this Hon'ble Tribunal.

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2. The Applicant in O.A. No. 60 of 2019 (WZ) has filed the present Application u/s 14 of the National Green Tribunal Act, 2010, before this Hon'ble Tribunal. Vide the present application, the Applicant has raised a substantial question pertaining to the illegal dumping of the Legacy Waste, Municipal Solid Waste and Bio-Medical Waste within the jurisdiction of the Respondent No. 1, more-so, the alleged illegal dumping at the Sukali Dumping Ground in Amravati, Maharashtra.
3. This Hon'ble Tribunal on 22.08.2019 considering the facts and circumstances briefly stated in O.A. No. 60 of 2019 (WZ) was of the considered opinion that a substantial question relating to environment was raised in the present case and therefore was pleased to issue notice upon the Respondents returnable in

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three weeks. Thereafter, the matter was listed on several occasions before this Hon'ble Tribunal for considering the issue raised in the O.A. No. 60 of 2019 (WZ).

4. On 22.09.2020, while the O.A. No. 60 of 2019 (WZ) was listed before this Hon'ble Tribunal for hearing, this Hon'ble Tribunal was pleased to direct as follows.

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"3. AMC is directed to see the matter and do the needful. The MPCB has assessed EC of about Rs. 47,23,45,000/-. As per discussion made above, we direct as follows:

i. *MPCB is directed to issue notice to AMC for realisation of EC and to proceed to realise it in accordance with law.*

ii. *AMC is directed to dispose of all legacy waste and waste generated within a time frame and submit the report before the date of listing.*

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iii. *The waste generated from COVID-19, containing PPE kit and other COVID-19 hospital biomedical waste which is reported to be transported by Amrawati Municipal Waste Transporter Contractor vehicles, be taken care and may be dealt, collected, transported and dispose of according to rules separately with consultation to Chief Medical Officer, Amrawati and should be disposed of according to Bio medical Waste Management Rules, 2016.*

iv. *A show cause notice be issued to the AMC as to why the necessary and preliminary action be not initiated and forwarded against the officials and officers working there and not enable to control and manage the solid waste management according to the rules and why the necessary and preliminary action should not be initiated against them for non-compliance of the rules.*

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v. *On the next date of listing, Municipal Commissioner, Amrawati will remain present at the time of hearing through Video Conference with future action plan as to how they manage to dispose the legacy waste and waste generated day to day."*

Thus, in terms of the order dated 22.09.2020, the Maharashtra Pollution Control Board was directed to issue notice to the Respondent No. 1 to realize an Environmental Compensation of about Rs. 47,23,45,000/- in accordance with law and the Respondent No. 1 was directed to submit a report with regards to the disposal of legacy waste and waste generated within the jurisdiction of the Respondent No. 1.

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5. Against the order dated 22.09.2020 passed by this Hon'ble Tribunal in O.A. No. 60 of 2019 (WZ), on 09.12.2020, the Respondent No. 1 filed a Civil Appeal No. 4020 of 2020 before the Hon'ble Supreme Court of India. Vide the order dated 18.12.2020, the Hon'ble Supreme Court of India was pleased to stay the directions for realization of an amount of Rs. 47,23,45,000/- passed by this Hon'ble Tribunal vide the order dated 22.09.2020 in O.A. No. 60 of 2019 (WZ). However, the Ld. Counsel appearing on behalf of the Respondent No. 1 in Civil Appeal No. 4020 of 2020 before the Hon'ble Supreme Court made a statement that ***"A Compliance Report of all directions except the one in Para 3(i) shall be filed within a period of two weeks"***. On the basis of the statement made, the Hon'ble Supreme Court was pleased to issue notice in Civil Appeal No. 4020 of 2020. A Copy of the order dated 18.12.2020 passed by the Hon'ble Supreme Court of India in Civil Appeal No. 4020 of 2020, is enclosed herewith as **Annexure A-1**.

6. In terms of the submission made by the Ld. Counsel on behalf of the Respondent No. 1 in Civil Appeal No. 4020 of 2020, a Compliance Affidavit dated 05.01.2021 has already been filed before the Hon'ble Supreme Court stating the measures undertaken by the Respondent No. 1 to comply with the order dated 22.09.2020 passed by this Hon'ble Tribunal in O.A. No. 60 of 2019 (WZ). A copy of the Compliance Affidavit dated 05.01.2021 filed by the Respondent No. 1 before the Hon'ble Supreme Court in C. A. No. 4020 of 2020 is enclosed herewith as **Annexure A-2**.

7. The Respondent No. 1, vide the present affidavit is bringing on record the steps undertaken by the Respondent No. 1 in compliance of the order dated 22.09.2020 as directed by this Hon'ble Tribunal. However, it may be noted that some part of the present affidavit could be a reiteration of the facts stated by the Respondent No. 1 in its Compliance Affidavit dated 05.01.2021 filed before the Hon'ble Supreme Court in C.A. No. 4020 of 2020 and therefore the Respondent No. 1 be permitted to reiterate the said facts in the present affidavit. At the outset it is submitted that the compliance affidavit filed before the Hon'ble Supreme Court in C.A. No. 4020 of 2020 is dated 05.01.2021 and therefore states the factual position existing as on 05.01.2021. Vide the present affidavit, the Respondent No. 1 shall endeavor to update the ground position with regards to the disposal of the legacy waste, as well as the Municipal Solid Waste and Bio-Medical Waste generated within the jurisdiction of the Respondent No. 1 as on the date of filing the present Affidavit.

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8. Vide the present Affidavit, I say that, the Respondent No. 1 is implementing the directions issued by this Hon'ble Tribunal for the purpose of undertaking the following processes.

9. **Compliance of Direction 3(ii) of the Order dated 22.09.2020-**

I. Bio-remediation and Bio-mining of Legacy Waste dumped at Sukali Dumping Ground.

II. Erection of Municipal Solid Waste Management Plant at:

A. Sukali Dumping Ground having a capacity of 200 TPD.

B. Akoli Bypass MSW Processing Plant having a capacity of 100 TPD.

C. Kondeshwar Naka, Badnera MSW Processing Plant having a capacity of 50 TPD.

Note- Since, 250 TPD of MSW is being generated within the jurisdiction of the Respondent No. 1, which will be processed by the MSW Plant at Sukali and Akoli, the Respondent No. 1 is only obtaining the permissions from the Competent Authorities for the MSW Plant at Kondeshwar Naka from a futuristic need and shall make the same operative as and when need be.

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I. Bio-remediation and Bio-mining through scientific reclamation of the Sukali Dumping Site for Legacy Waste:

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a. The Legacy Waste within the jurisdiction of the Respondent No. 1 Corporation is an issue pertaining to the Waste being dumped at the Sukali Dumping Ground. The total area of the Sukali Dumping Ground is 12 Ha out of which only 9.35 Ha is currently in possession of the Respondent No. 1 Corporation. A railway track occupying 0.8 Ha passes through the Sukali Dumping Ground towards the East Side, a land admeasuring 1.4 Ha beyond the railway track on the Sukali Dumping Ground is inaccessible to the Respondent No. 1 Corporation as a consequence of the Railway Track on the Eastward side of the Sukali Dumping Ground. Also, a road admeasuring 0.8 Ha passes through the westward side of the Sukali Dumping Ground and therefore, only an area of 6.35 Ha is available for undertaking dumping at the Sukali Dumping Ground.

b. The State of Maharashtra on 07.06.2017, directed the Respondent No. 1 to prepare a Detailed Project Report (DPR) regarding the Solid Waste Management under the "Swachh Maharashtra Mission (Urban)" carried

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out under the "Swachh Bharat Abhiyan" for the Municipal Solid Waste (MSW) management. The Respondent No. 1 Corporation was informed that M/s Mars Planning and Engineering Services Pvt. Ltd. was appointed as a Project Monitoring Consultancy (PMC) for the preparation of the Detailed Project Report (DPR) of the Solid Waste Management in all local bodies of Amravati region. The Detailed Project Report which was to be prepared by M/s Mars Planning and Engineering Services Pvt. Ltd. also included the study for earmarking of the Sukali Dumping Site of Legacy Waste for the "Scientific Reclamation of the Dumpsite through Bio-Mining". It is important to note that the Detailed Project Report which was to be prepared by M/s Mars Planning and Engineering Services Pvt Ltd was also considering the project for erection of the Municipal Solid Waste Plants having capacity of 200 TPD at Sukali Dumping Ground, 100 TPD at Akoli Bypass MSW Processing Plant and 50 TPD at Kondeshwar Naka Badnera. A Copy of the letter dated 07.06.2017 issued by the State of Maharashtra to the Respondent No. 1 Corporation is enclosed herewith as **Annexure A-3.**

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c. In terms of the letter issued by the State of Maharashtra, the Respondent No. 1 Corporation approached M/s Mars Planning and Engineering Pvt. Ltd. Accordingly, M/s Mars Planning and Engineering Pvt. Ltd. prepared a Detailed Project Report (DPR) under the "Swachh Maharashtra Mission (Urban)" dated 12.12.2017. The Detailed Project Report had proposed an appropriate system of Solid Waste Management for Amravati (Amravati District), looking into the various aspects of Collection, Transportation, Processing and Disposal. The Detailed Project Report dated 12.12.2017, commented that the Respondent No. 1 Corporation was managing the Solid Waste in two steps (a) Collection of Waste door to door and transportation up to storage bins and (b) Transportation of waste from Storage bins to Dumping Site. Considering the process adopted by the Respondent No. 1 Corporation, it was proposed that the Detailed Project Report ought to be prepared for the Waste Treatment and Disposal only including Bio-Mining at the Sukali Dumping Ground, for the reclamation of the required land. The Report considered issues such as (a) Waste Segregation at Source, (b) Collection and Transportation, (c) Waste Processing, (d) Waste Disposal, (e) Capital Requirement, (f) O & M requirements (Operation and Maintenance), (g) Proposed funds for Capital Expenditure and (h) Proposed funds for O & M Expenditure. The

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Report in its Chapter 6, "Proposed MSWM System" has carried out a survey in Chapter 6.4.6, "Cleanup of Old Open Dumps". As per the field visit that was carried out, it was observed that the Legacy Waste at the Sukali Dumping Site was covered with waste having average length of 321.82 Mtrs, Width of 200 Mtrs and a height of 2.05 Mtrs (As on 12.12.2017). Thus, the quantity of the Legacy Waste that was admeasured at the Sukali Dumping Site as on 12.12.2017 in the Detailed Project Report as prepared by M/s Mars Planning and Engineering Pvt. Ltd. was about 1,31,945 m^3. The Detailed Project Report of 12.12.2017, suggested that Bio-Mining was the most successful example of clearing of all existing dumps of untreated garbage whereby, 90% of the old dump could be removed and the land could be reclaimed without moving the waste to any other place. Accordingly, an amount of Rs. 8,24,75,930/- was the estimated cost suggested in the Detailed Project Report dated 12.12.2017 of M/s Mars Planning and Engineering Pvt. Ltd. for Bio-Mining of Old Dumped Legacy Waste Site at the Sukali Dumping Ground. A copy of the Detailed Project Report (DPR) dated 12.12.2017 prepared by M/s Mars Planning and Engineering Pvt. Ltd. is enclosed herewith as **Annexure A-4.**

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d. The Respondent No. 1 Corporation on 19.12.2017, considered the approval of the Detailed Project Report dated 12.12.2017 of M/s Mars Planning and Engineering Pvt. Ltd. By a Resolution bearing No. 71, the Detailed Project report dated 12.12.2017 was discussed at length and accordingly, an Administrative Approval was accorded to the Detailed Project Report and a Resolution was passed unanimously. It was further agreed that the Detailed Project Report was to be sent to the Government of Maharashtra for its final approval. A copy of the extracts of the Resolution No. 71 passed in the General Meeting dated 19.12.2017 is enclosed herewith as **Annexure A-5.**

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e. By a letter dated 21.12.2017, the Respondent No. 1 Corporation submitted the Detailed Project Report dated 12.12.2017 to Maharashtra Urban Development Mission Directorate, Swachh Maharashtra Mission (U), Government of Maharashtra seeking its approval for the Detailed Project Report dated 12.12.2017. A Copy of the letter dated 21.12.2017 to the Government of Maharashtra issued by the Respondent No. 1 Corporation is enclosed herewith as **Annexure A-6.**

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f. The State Mission Director, Swachh Maharashtra Mission (U) by a letter dated 12.02.2018, forwarded the Detailed Project Report dated 12.12.2017 to CSIR-NEERI Nagpur to appraise the Detailed Project Report technically as per the MOHUA Guidelines and SWM Rules, 2016. Once the Technical Approval of the CSIR- NEERI was accorded, the report was to be sent back to the Government of Maharashtra. A copy of letter dated 12.02.2018 issued by the Government of Maharashtra to the CSIR-NEERI, Nagpur is enclosed herewith as **Annexure A-7**.

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g. The Urban Development Department of Government of Maharashtra by a Government Order dated 13.11.2018 had previously constituted a committee under the Chairmanship of Commissioner/ Director Municipal Administration to study and to implement the Bio-Mining process for scientific process for Solid Waste which was collected without any process in the cities of the state. As per the recommendations of this committee, the permission had been granted to establish Bio-Mining pilot project only in selected cities. Considering the experiences of such pilot project, the Government of Maharashtra was considering to grant permission to other cities of the state for conducting Bio-Mining Process. Accordingly, by a Government Order dated 13.11.2018, the Government of Maharashtra accorded permission for Bio-Mining Processes to cities mentioned in Index A (Respondent No. 1 Corporation at No. 178), subject to the condition that it was necessary for the Respondent No. 1 Corporation to take modified technical permission considering that the rates for the Bio-Mining were modified. Thus, it was necessary for the Respondent No. 1 Corporation to take modified technical permission in terms of the order dated 13.11.2018 passed by the Urban Development Department, Government of Maharashtra. A Copy of the order dated 13.11.2018 passed by the Urban Development Department, Government of Maharashtra is enclosed herewith as **Annexure A-8**.

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h. The Urban Development Department, Government of Maharashtra in the order dated 16.11.2018 observed that the Government of Maharashtra had granted permission to the Solid Waste Management project of Rs. 40.7087/- Crores to Amravati Municipal Corporation under the "Swachh Maharashtra Mission (Urban)". Out of the Rs. 40.7087/- Crores and amount of Rs. 14.24/- Crores were allotted from the Central Government, an amount of Rs. 9.49/- Crores was accorded by the State Government and the balance amount of Rs. 16.96/- was to be utilized from the funds

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allotted under the 14th Finance Commission to the Respondent No. 1 Corporation. Vide the order dated 16.11.2018, the rates for Bio-Mining were modified and therefore the Respondent No. 1 Corporation was directed to obtain technical permission from Water Supply and Sanitation Department of the Government of Maharashtra prior to implementing the Bio-Mining Project. A copy of the order dated 16.11.2018 passed by the Urban Development Department, Government of Maharashtra is enclosed herewith as **Annexure A-9.**

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l. In terms of the order passed by the Urban Department, Government of Maharashtra dated 16.11.2018, the Respondent No. 1 Corporation was directed to modify its rates for Bio-mining at Rs. 420/m^3 and accordingly obtain technical permission from Water Supply and Sanitation Department of the Government of Maharashtra. Accordingly, the Respondent No. 1 Corporation has obtained a technical permission on 20.11.2018 for the Bio-mining of the Legacy Waste accumulated at Sukali Dumping Ground from Maharashtra Jeevan Pradhikaran, Water Supply and Sanitation Department, Government of Maharashtra. Thus, an amount of Rs. 5,54,16,732/- was sanctioned for the purpose of Bio-mining of the Legacy Waste dumped at the Sukali Dumping Ground admeasuring 1,31,945 m^3. A copy of the technical permission dated 20.11.2018 issued by the Maharashtra Jeevan Pradhikaran is enclosed herewith as **Annexure A-10.**

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The Respondent No. 1 Corporation on 02.03.2019 floated a Tender for selection of Contractors for Scientific Dumpsite Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati under the Respondent No. 1 Corporation. On perusing the contents of the Tender floated by the Respondent No. 1 Corporation, the Tender was floated for reclamation of the Legacy Waste through Bio-mining for a dump admeasuring 1,31,946.20 m^3. A copy of the Tender dated 02.03.2019 floated by the Respondent No. 1 Corporation is enclosed herewith as **Annexure A-11.**

k. The Respondent No. 1 Corporation on 05.09.2019 entered into an Agreement with M/s Sadguru Bagadebaba Enterprises in JV with P. H. Jadhav, as a successful bidder, to execute the work of Scientific Dumpsite Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot. In terms of the said Agreement, the Bio-mining work was to be completed within a period of 6 months

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from the date of signing of the Agreement or the date of issue of the Consent to Establish to the project, whichever was later. The Agreement also specifically spelled out the scope of work to be executed by the contractor. A copy of the Agreement dated 05.09.2019 between the Respondent No. 1 Corporation and M/s Sadguru Bagadebaba Enterprises is enclosed herewith as **Annexure A-12.**

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Thereafter, on 20.09.2019, the work order for the Scientific Dumpsite Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, was accorded to M/s Sadguru Bagadebaba Enterprises being the successful bidder. In terms of the work order dated 20.09.2019, the contractor was to commence work immediately subject to conditions mentioned in the work order. A copy of the work order dated 20.09.2019 issued by the Respondent No. 1 Corporation to M/s Sadguru Bagadebaba Enterprises is enclosed herewith as **Annexure A-13.**

m. In terms of the Agreement dated 05.09.2019, the contractor was to carry out Total Station Survey of complete project site including the area earmarked in which Bio-mining was to be done. Accordingly, the contractor has conducted a Total Station Survey of the complete project in October, 2019 and has filed a Report dated 27.11.2019. On perusing the Report dated 27.11.2019, it is apparent that, an area of 7.64 Ha. is covered under the Legacy Waste and a total quantity of 3,99,867.73 m^3 of Legacy Waste was accumulated at the Sukali Dumping Ground. However, on perusing the contents of the Tender document dated 02.03.2019, the work order accorded to M/s Sadguru Bagadebaba Enterprises was for a Legacy Waste dump admeasuring 1,31,946.20 m^3. Vide the letter dated 27.11.2019, M/s Sadguru Bagadebaba Enterprises called upon the Respondent No. 1 Corporation to earmark an area of 3.08 Ha covering Legacy Waste of 1,31,946.20 m^3 from the 9.35 Ha of the Sukali Dumping Ground. A copy of the Report dated 27.11.2019 of the Total Station Survey of M/s Sadguru Bagadebaba Enterprises is enclosed herewith as **Annexure A-14.**

n. Thereafter on 28.11.2019, M/s Mars Planning and Engineering Services Pvt. Ltd. submitted a Report earmarking 3.08 Ha holding 1,31,946.20 m^3 of Legacy Waste. The Report dated 28.11.2019 categorically identified the area from chainage 590 mtrs to chainage of 800 mtrs admeasured 3.08 Ha and was the earmark site for the work of Scientific Dumpsite

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Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot holding Legacy Waste of 1,31,946.20 m^3. A copy of the Report dated 28.11.2019 of M/s Mars Planning and Engineering Services Pvt. Ltd. is enclosed herewith as **Annexure A-15.**

o. In terms of the Tender dated 02.03.2019, the Agreement dated 05.09.2019 and more so the work order dated 20.09.2019, M/s Sadguru Bagadebaba Enterprises JV with P. H. Jadhav was under an obligation to finish the reclamation of the Legacy Waste of 1,31,946.20 m^3 on or before March, 2020. However, since the Contractor did not complete the work as per the work order, the Respondent No. 1 Corporation has imposed a penalty of Rs. 5,00,000/- on the Contractor for the delay in execution of the work.

p. The Contractor viz. M/s Sadguru Bagadebaba Enterprises however, had commenced with the work of reclamation of the Legacy Waste through Bio-mining immediately after the issuance of the work order. The work of Formation of Heaps and Spreading of Bio-culture was completed on 30.10.2019. A copy of the photographs showing the work of Formation of Heaps and Spreading of Bio-culture is enclosed herewith as **Annexure A-16.** The deployment of screening machine with 200 TPD Capacity started from 10.11.2019 and was required to be stopped from 20.03.2020 to 09.05.2020 due to the outbreak of the COVID-19 Pandemic. The screening machine was operative till 12.06.2020 and had to be stopped till 31.10.2020 due to the rainy season in District Amravati. The screening machine had restarted from 01.11.2020 and currently is inoperative as reclaiming 3.08 Ha of legacy waste admeasuring 1,31,946.20 m^3 of Legacy Waste has been completed.

q. As per the Tender document dated 02.03.2019, out of the total area of 6.35 Ha only an area of 3.08 Ha of Legacy Waste Dump was to be reclaimed availing the services of M/s Sadguru Bagadebaba Enterprises. Out of the 3.08 Ha of Legacy Waste Dump to be reclaimed as per the Tender Document dated 02.03.2019, approximately an area of 1.31 Ha has been reclaimed and a quantity of 63,860.65 m^3 of Legacy Waste has been cleaned up to June, 2020.

r. Thereafter, due to the onslaught of the rainy season, in Maharashtra, the reclamation of Legacy Waste through Bio-mining as per the Tender Document dated 02.03.2019, commenced from 31.10.2020 and was

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scheduled to be completed on 31.12.2020. However, on 12.10.2020, M/s Mars Planning and Engineering Services Pvt. Ltd. conducted a Total Station Survey Report for the Legacy Waste at the Sukali Dumping Ground, wherein, it was observed that the Total area under Legacy Waste as on 12.10.2020 was 7.99 Ha with total quantity of Legacy Waste of 4,37,070.31 m^3 as on the date of survey i.e. 03-04 October, 2020. The Survey Report of 12.10.2020 has annexed a map which shows that in Part C, 1.3 Ha of land has been reclaimed and 63,860.65 m^3 of Legacy Waste has been cleaned through the Bio-remediation and Bio-mining. This area of 1.3 Ha which has been reclaimed and a quantity of 63,860.65 m^3 of Legacy Waste cleaned forms a part of the Tender Document dated 02.03.2019 seeking Bio-remediation of the Legacy Waste Dumpsite admeasuring 1,31,946.20 m^3. A copy of the Total Station Survey Report dated 12.10.2020 by M/s Mars Planning and Engineering Services Pvt. Ltd. is enclosed herewith as **Annexure A-17**.

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s. In order to verify the execution of the work, undertaken by the Contractor in terms of the work order dated 20.09.2019, M/s Mars Planning and Engineering Services Pvt. Ltd. carried a further survey of the Total Station Survey of the Legacy Waste at Sukali Dumping Ground on 03-04 December, 2020. In terms of the previous Survey Report dated 12.10.2020, as per the Tender Document dated 02.03.2019, out of 1,31,946.20 m^3 of Legacy Waste, the Contractor as on June, 2020 had cleared 63,860.65 m^3 of Legacy Waste. Out of the balance quantity of 72,020.92 m^3, the report of M/s Mars Planning and Engineering Services Pvt. Ltd. dated 15.12.2020 shows that a quantity of 33,934.45 m^3 of Legacy Waste still needs to be cleared in terms of the Tender Document dated 02.03.2019. Thus, as on 15.12.2020, a total quantity of 1,01,325.8 m^3 of Legacy Waste has been cleaned out of 1,31,946.20 m^3 and an area of 2.73 Ha out of the 3.08 Ha of the earmarked area as per the Tender Document dated 02.03.2019 has been reclaimed. A copy of the Report dated 15.12.2020 of M/s Mars Planning and Engineering Services Pvt. Ltd. is enclosed herewith as **Annexure A-18**.

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t. The Total Station Survey Report of 02.01.2021 on the basis of a Survey conducted on 23.12.2020 has observed that a quantity of Legacy Waste of 1,44,467 m^3 has been cleared in an area of 3.28 Ha. Therefore, the work in terms of the Tender Document dated 02.03.2019 has been completely executed by the Respondent No. 1 Corporation. A Copy of the

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recent Total Station Survey Report dated 02.01.2021 is enclosed herewith as **Annexure A- 19.**

u. The Respondent No. 1 Corporation in terms of the Survey conducted in October, 2020, realized that a total quantity of Legacy Waste of 4,37,070.31 m^3 was existing in an area of 7.99 Ha. Since, 63,860.65 m^3 of Legacy Waste was remediated and a quantity of 72,020.92 m^3 of Legacy Waste was to be remediated in pursuance of the Tender Document dated 02.03.2019, a quantity of 3,65,050 m^3 of Legacy Waste was to be remediated in an area of 5.3 Ha which was beyond the scope of the Tender Document dated 02.03.2019. Therefore, the Respondent No. 1 Corporation in October, 2020 has prepared a revised Detailed Project Report, taking into consideration the additional quantity of 3,65,050 m^3 of Legacy Waste which was not a part of the Detailed Project Report dated 12.12.2017. The project cost for Bio-remediation of 3,65,050 m^3 at the rate of Rs. 420/m^3 was calculated at Rs. 15,33,21,000/-. Cost for Bio-mining was as per the rate approved by the Maharashtra Jeevan Pradhikaran, Amravati in its Technical Sanction dated 20.11.2018. The Revised Detailed Project Report, October 2020 projects the cost for Bio-Remediation of 3,65,050 m^3 at the rate of Rs. 420/m^3 for the Bio-Remediation of Legacy Waste existing at the Sukali Dumping Ground as on October, 2020. A copy of the Revised Detailed Project Report, October, 2020 by the Respondent No. 1 Corporation is enclosed herewith as **Annexure A-20.**

v. The Respondent No. 1 Corporation by a letter dated 24.11.2020 submitted the Revised Detailed Project Report to the Principal Secretary, Nagar Vikas Department, Government of Maharashtra for its technical approval for the grant of funds to undertake remediation of the balance Legacy Waste of 3,65,050 m^3 through Bio-mining and Bio-remediation which was not forming a part of the remediation of Legacy Waste executed under the Tender Document dated 02.03.2019. A copy of the letter dated 24.11.2020 submitted by the Respondent No. 1 Corporation to the Principal Secretary, Nagar Vikas Department, Government of Maharashtra is enclosed herewith as **Annexure A-21.**

Also, further follow up letters dated 22.02.2021 and 27.04.2021 were written to the Government of Maharashtra for its technical approval for the grant of funds to undertake remediation of the balance Legacy Waste

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of 3,65,050 m^3 through Bio-mining and Bio-remediation. However, the Respondent No. 1 till date has not received any reply from Government of Maharashtra. A copy of the letter dated 22.02.2021 written by the Respondent No. 1 Corporation to the Government of Maharashtra is enclosed herewith as **Annexure A-22.**

w. The Respondent No. 1 Corporation without prejudice to its contention that as per the revised DPR an amount of Rs. 15,33,21,000/- was required for the purpose of remediating 3,65,050 m^3 of Legacy Waste existing at the Sukali Dumping Ground, the Respondent No. 1 Corporation have sought the approval of the Urban Development Department, Government of Maharashtra for funding the Revised DPR. The Respondent No. 1 Corporation is also as per the Solid Waste Management Rules, 2016 under a Statutory Obligation to undertake on their own or through any other agency Construction, Operation and maintenance of the Dump Site and associated infrastructure for the disposal of the Legacy Waste at the Dump Site in a manner prescribed under the rules. Therefore, the Respondent No. 1 Corporation is also on its own accord without waiting for the approval of the funds from the Maharashtra State Government as stipulated in the revised DPR, making adequate provisions of funds and capital investments for the remediation of 3,65,050 m^3 of Legacy Waste at the Sukali Dumping Ground by utilizing the funds granted to the Respondent No. 1 Corporation under the 15th Finance Commission. The 15th Finance Commission for the Financial Year of 2020-21 has allotted an amount of Rs. 90,000 Crores to the Local Bodies out of which Rs. 29,250 Crores (32.50%) shall be allotted for urban Local Bodies and the Urban Local Bodies within the State of Maharashtra have been granted Rs. 2,806 Crores. The Urban Development Department, Government of Maharashtra by a Notification dated 26.05.2020, in terms of the 15th Finance Commission for the Financial year 2020-21, accorded an amount of Rs. 9,67,47,908/- to the Respondent No. 1 Corporation. A Copy of the Notification of Urban Development Department, Government of Maharashtra dated 26.05.2020 is enclosed herewith as **Annexure A- 23.**

x. The Urban Development Department of the Maharashtra State Government by its Notification dated 28.10.2020, out of the Rs. 2,806 Crores has allotted Rs. 1,220 Crores to the Non-Million Plus Local Bodies whereas, Rs. 1,586 Crores has been allotted to the Million Plus Cities. Out of Rs. 1,220 Crores allotted to the Non-Million Plus cities, 25% of the tied

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grant ought to be utilize towards the Solid Waste Management. A Copy of the Notification dated 28.10.2020 of the Urban Development Department of State of Maharashtra is enclosed herewith as **Annexure A-24.**

y. The Urban Development Department, Government of Maharashtra by a Notification dated 10.11.2020, in terms of the 15th Finance Commission for the Financial year 2020-21, accorded an additional amount of Rs. 9,79,07,400/- to the Respondent No. 1 Corporation. The Copy of the Notification of Urban Development Department, Government of Maharashtra dated 10.11.2020 is enclosed herewith as **Annexure A- 25.** The Urban Development Department, Government of Maharashtra by a Notification dated 09.03.2021, in terms of the 15th Finance Commission for the Financial year 2020-21, accorded an additional amount of Rs. 9,17,91,284/- to the Respondent No. 1 Corporation. Thus, in terms of the 15th Finance Commission, the Respondent No. 1 Corporation has received a total amount of Rs. 28,64,46,592/-. As per the Notification dated 28.10.2020 out of Rs. 28,64,46,592/-, 25% was to be utilized towards Solid Waste Management/ Sanitation, 25% towards Drinking Water and 50% towards basic grants by the Respondent No. 1 Corporation. Thus, mandatorily an amount of Rs. 7,16,11,648/- was to be earmarked towards Solid Waste Management/Sanitation, Rs. 7,16,11,648/- towards drinking water and remaining Rs. 14,32,23,296/- could be used towards basic grant. A Copy of the Notification of Urban Development Department, Government of Maharashtra dated 09.03.2021 is enclosed herewith as **Annexure A- 26.**

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aa. Thus, the amount of Rs. 15,33,21,000/- calculated in the revised DPR by the Respondent No. 1 Corporation for the remediation of a quantity of 3,65,050 m^3, in the absence of the funds being granted by the Government of Maharashtra, the Respondent No. 1 Corporation shall allocate an amount of Rs. 7,16,11,648/- earmarked towards Solid Waste Management/Sanitation and Rs. 8,17,09,352/- from the basic grant as per the Notification of the Government of Maharashtra dated 28.10.2020 in pursuance of the grants allotted by the 15th Finance Commission for the Financial Year 2020-21. Thus, a total amount of Rs. 15,33,21,000/- shall be raised by the Respondent No. 1 Corporation out of the Funds allotted to the Respondent No. 1 Corporation as per the 15th Finance Commission for the Financial Year 2020-21. On perusing the contents of the Notification dated 28.10.2020, the grant of the administrative approval

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for the utilization of the funds granted under the 15th Finance Commission for Non-Million Plus cities shall be the prerogative of the respective Municipal Commissioner and it shall be the Commissioner who shall have the absolute power in utilizing the funds of the Municipal Corporation. The Respondent No. 1 Corporation, therefore, in a case where the Maharashtra State Government fails to grant the technical approval to the Revised DPR of the Respondent No. 1 Corporation, the Respondent No. 1 Corporation shall utilize an amount of Rs. 15,33,23,000/- from the funds allotted to the Corporation under the 15th Finance Commission. The City Engineer of the Respondent No. 1 Corporation vide its letter dated 01.01.2021 has informed the consent of the Municipal Commissioner to utilize the required funds from the 15th Finance Commission and Municipal Funds for Bio-Remediation and Bio-Mining of Legacy Waste as per the revised DPR. A copy of the letter dated 01.01.2021 issued by the City Engineer of the Respondent No. 1 Corporation is enclosed herewith as **Annexure A-27.**

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bb. The Maharashtra Jeevan Pradhikaran, Amravati vide its letter dated 18.02.2021 granted technical sanction to the project of reclamation of land through Bio-Remediation and Bio-Mining of Legacy Waste at the Sukali Compost Depot for Solid Waste Management in the Amravati Municipal Corporation area. The technical sanction accorded by the the Maharashtra Jeevan Pradhikaran was for remediating of 3,65,050 m^3 of Legacy Waste for an amount of Rs. 15,33,21,000/-. The copy of the technical sanction letter dated 18.02.2021 issued by the Maharashtra Jeevan Pradhikaran is enclosed herewith as **Annexure A-28.**

cc. The revised DPR of October 2020 was submitted by the Respondent No. 1 to the Maharashtra Jeevan Pradhikaran for its technical sanction which was received on 18.02.2021. The Respondent No. 1 on 27.04.2021 wrote a follow up letter to the Principal Secretary, Urban Development Department (2), Government of Maharashtra calling upon the Principal Secretary to sanction the funds of Rs. 15,33,21,000/- towards remediating of 3,65,050 m^3 of Legacy Waste dumped at the Sukali Dumping Ground which was technically approved by the Maharashtra Jeevan Pradhikaran vide its letter dated 18.02.2021. A copy of the letter dated 27.04.2021 of the Respondent No. 1 addressed to the Principal Secretary, Urban Development Department (2), Government of Maharashtra is enclosed herewith as **Annexure A-29.**

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dd. The Respondent No. 1 Corporation on 12.03.2021 has issued an E-Tender Notice bearing No. AMC/CE/SWMTEN/51-2021 for selection of a contractor for the work of "Scientific Dumpsite Land Reclamation through Bio-Mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati." The schedule of the E-Tender Notice dated 12.03.2021 was as follows-

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Event	Date	Time	Web-Link/Venue
Start of Bid Download	12.03.2021	16:00 pm	www.mahatenders.gov.in
Pre bid meeting	31.03.2021	11:00 am	The Commissioner, Amravati Municipal Corporation, Rajkamal Chowk Amravati, 444601, Dist: Amravati, Maharashtra.
End Date of online & physical bid submission	08.04.2021	16:00 pm	Online Submission (Technical and Financial Bid): www.mahatenders.gov.in Physical Submission: (Technical Bid only): Commissioner, Amravati, Dist- Amravati, Maharashtra.
Technical bid Opening	09.04.2021	11:00 pm	Amravati Municipal Corporation, Amravati.
Financial Bid Opening	09.04.2021		Amravati Municipal Corporation.

A copy of the E-Tender Notice dated 12.03.2021 bearing No. AMC/CE/SWMTEN/51-2021 of the Respondent No. 1 Corporation is enclosed herewith as **Annexure A-30**.

ee. Simultaneously, the Respondent No. 1 Corporation on 12.03.2021, in order to fulfill the objectives of the Swachh Maharashtra Mission, floated a Tender for a proposed project to reclaim land from the existing dumpsite, Sukali Compost Depot, Amravati through the process of Bio-Mining. The Respondent No. 1 sought proposals for eligible bidders to undertake the work required for Scientific dumpsite reclamation through Bio-remediation and Bio-mining of legacy waste/un-processed Municipal

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Solid Waste by excavation of complete mixed MSW from the dumpsite formation of trenches, spreading of bio-culture, periodic rotation of hips formed. Resource recovery by using suitable mechanical sieving machine or any other suitable equipment/method, segregating, sorting, retrieving recoverable material such as plastic/RDF/biosolids/rejects/inert. Contractor shall execute the work as per the SWM Rules, 2016 and CPCB Guidelines for disposal of Legacy Waste (Old Municipal Solid Waste) Feb 2019 during contract period and hald back of reclaimed land and disposal facility to the Respondent No. 1 Corporation at the end of the contract.

A copy of the request for proposal for selection of contractor for the work of "Scientific Dumpsite Land Reclamation through Bio-Mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati" by the Respondent No. 1is enclosed herewith as **Annexure A-31.**

ff. In terms of the E-Tender Notice dated 12.03.2021, a pre-bid meeting dated 31.03.2021 was conducted at the office of the Respondent No. 1 Corporation. The said meeting was attended by the Competent Officers of the Respondent No. 1 including the Ld. Commissioner as well as the Potential Bidders. During this meeting, any objections/queries of the Potential Bidders were answered by the Officers of the Respondent No. 1. The minutes of the meeting dated 31.03.2021 were published by the Respondent No. 1 on 06.04.2021. A copy of the Publication dated 06.04.2021 by the Respondent No. 1 of the meeting dated 31.03.2021 is enclosed herewith as **Annexure A-32.**

gg. As per the Tender Notice dated 12.03.2021, 08.04.2021 was the end date of online and physical submission of the bid in pursuance of the Tender Document floated by the Respondent No. 1 on 12.03.2021. Unfortunately, the Respondent No. 1 received no bid from any of the Potential Bidders for "Scientific Dumpsite Land Reclamation through Bio-Mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati".

hh. As stated herein above, the Government of Maharashtra vide its letter dated 07.06.2017 (Annexed herewith as Annexure A- 3 hereinabove), the Respondent No. 1 was directed to consult a Project Monitoring Consultancy (PMC) for the purpose of assisting the Respondent No. 1 for the preparation of the Master Plan, DPR and MSW Project of the Respondent No. 1. Previously, M/s Mars Planning and Engineering

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Services Pvt. Ltd. was a PMC appointed by the State Government for preparing DPRs of MSW in all local bodies of the Amravati region. Since, the previous Detailed Project Report dated 12.12.2017 pertained to reclamation of land through Bio-Mining of 1,31,945 m^3 of MSW was completed on or around 02.01.2021, the services of M/s Mars Planning and Engineering Services Pvt. Ltd. stood terminated with regards to Bio-Mining and Bio-Remediation of Legacy Waste at the Sukali Dumping Ground. Also, since the Respondent No. 1 Corporation received no bid for the E-Tender dated 12.03.2021, the Respondent No. 1 felt it necessary to appoint a PMC who would assist the Respondent No. 1 in preparing the Master Plan, DPR and MSW Project of the Respondent No. 1. Accordingly, on 28.04.2021, the Respondent No. 1 floated an E-Tender Notice bearing No. AMC/CE/189/2021, calling for proposals for empanelment of the Project Monitoring Consultancy for the preparation of the Master Plan, DPR and SWM Project of the Respondent No. 1 Corporation. The timeline for the E-Tender Notice dated 28.04.2021 is tabulated herein below-

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Event	Date	Time	Web-Link/Venue
Start of Bid Download	28.04.2021	16:00 pm	www.mahatenders.gov.in
Pre bid meeting	11.05.2021	11:00 am	At Deputy Municipal Commissioner Office, Amravati Municipal Corporation, Amravati.
End Date of online & physical bid submission	18.05.2021	16:00 pm	Online Submission- www.mahatenders.gov.in Physical Submission- At Deputy Municipal Commissioner Office, Amravati Municipal Corporation, Rajkamal chowk, Dist- Amravati.
Technical bid Opening	20.05.2021	16:00 pm	Amravati Municipal Corporation, Amravati.
Financial Bid Opening	---		Amravati Municipal Corporation.

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The pre-bid meeting for the appointing the Project Monitoring Consultancy is scheduled for 11.05.2021 and 18.05.2021 is the final date for submission of the physical as well as the online bid. Once the final bid is submitted, opening of the technical bid is tentatively scheduled on 20.05.2021. Therefore, as on 20.05.2021, the Respondent No. 1 is hopeful that the Respondent No. 1 would have a successful bidder for empanelment of the Project Monitoring Consultancy for the preparation of the Master Plan, DPR and SWM Project of the Respondent No. 1 Corporation. Once a successful Project Monitoring Consultancy is finalized, the Respondent No. 1 would require a period of 3 weeks for appointing the Project Monitoring Consultancy as the technical bid of the successful bidder has to be sent to the Tender Scrutiny Committee, after which, the same is sent to the Ld. Commissioner for his approval. Once the approval of the Ld. Commissioner is accorded to the technical and financial bid, the proposal is placed before the Standing Committee for its approval on executing an agreement with the successful bidder. After the approval of the Standing Committee, the Respondent No. 1 Corporation would then be in a position to execute an agreement with a successful bidder after which a work order shall be issued. This process up to the issuance of the work order, requires a period of 3 weeks for the Respondent No. 1.

A copy of the E-Tender Notice dated 28.04.2021 bearing No. AMC/CE/189/2021 of the Respondent No. 1 Corporation is enclosed herewith as **Annexure A-33.**

ii. The Respondent No. 1 as mentioned hereinabove had previously floated a Tender Document dated 12.03.2021 requesting a proposal for "Scientific Dumpsite Land Reclamation through Bio-Mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati". However, the same received no bids due to technical issues in the Tender Document dated 12.03.2021. In order to overcome the technical issue, the Respondent No. 1 has commenced with its process of appointing a PMC who would assist the Respondent No. 1. The Respondent No. 1 on the appointment of the PMC as per the process mentioned herein above, would immediately thereafter, do a total survey of the Sukali Dumping Ground and accordingly make modifications/alterations to the Tender Document which was previously floated on 12.03.2021 for Bio-Mining and Bio-Remediation. Thereafter, a fresh Tender shall be issued seeking

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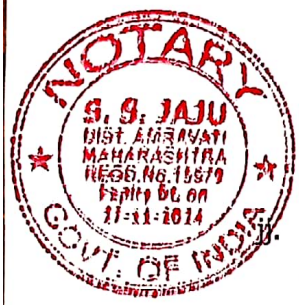
proposals for "Scientific Dumpsite Land Reclamation through Bio-Mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati". The Respondent No. 1 undertakes that, once the PMC is appointed in accordance with law, the Respondent No. 1 shall within 15 days of the PMC being appointed, float a Tender seeking proposal for "Scientific Dumpsite Land Reclamation through Bio-Mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati".



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ii. The Respondent No. 1 states that, without prejudice to the statements made herein below, for reasons beyond the control of the Respondent No. 1, the time schedule mentioned herein below could minutely vary, for which, the Respondent No. 1 ought not to be held responsible. The Respondent No. 1 undertakes that the Respondent No. 1 shall make a sincere endeavor to implement the time lines to resolve the issue of the Legacy Waste within the jurisdiction of the Respondent No. 1. Once the PMC is appointed, the PMC shall undertake the survey of the Sukali Compost Depot and accordingly a Total Station Survey Report shall be prepared for the existing Legacy Waste at the Sukali Dumping Ground. The Respondent No. 1 shall try and make the Total Station Survey Report available on or before 10.07.2021. Once the Total Station Survey Report is made available, the PMC shall assist the Respondent No. 1 in identifying the short comings/technicalities of the Tender Document dated 12.03.2021. Thereafter, the Tender Document would be recalled for inviting proposals for selection of contractors for the work of "Scientific Dumpsite Land Reclamation through Bio-Mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati" on or before 20.07.2021. On the publication of the E-Tender inviting proposals on or before 20.07.2021, the Respondent No. 1 would have to then grant a period of 25 days for the interested bidders to place their bids. Therefore, the Respondent No. 1 will have to await till 16.08.2021 for the submission of the bids by the interested contractors. The Respondent No. 1 submits that, if interested contractors place competitive bids, the Respondent No. 1 by 30.09.2021 could issue work contract to the successful contractor. Once the work contract is issued, the contractor would require a period of 15 days to deploy its machinery at the Sukali Compost Depot site. However, since the monsoon season would be on going in the State of Maharashtra from June, 2021 to October, 2021, the processing of the

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Legacy Waste through Bio-Mining and Bio-Remediation can only commence from 01.11.2021. The Respondent No. 1 undertakes to commence the process of Legacy Waste of the remaining quantity through Bio-Mining and Bio-Remediation at the Sukali Compost Depot from 01.11.2021. the Respondent No. 1 further undertakes that the balance Legacy Waste to be remediated at the Sukali Compost Depot shall be completed within a year from 01.11.2021 and thereafter there shall be no problem of Legacy Waste existing within the jurisdiction of the Respondent No. 1.

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II. Erection of Municipal Solid Waste Management Plant:

a. A total of 250 TPD of Municipal Solid Waste is generated within the jurisdiction of the Respondent No. 1 Corporation daily. Currently, the entire 250 TPD of MSW being generated within the jurisdiction of the Respondent No. 1 Corporation is being dumped at the Sukali Dumping Ground and is being remediated as a part of the process of remediation of Legacy Waste through Bio-Remediation and Bio-Mining at the Sukali Dumping Ground. The Respondent No. 1 Corporation has currently undertaken construction of the MSW Management Plants at the Sukali Compost Depot having a capacity of 200 TPD, Akoli Ring Road Site having a capacity of 100 TPD and Kondeshwar Naka Site having a capacity of 50 TPD in order to process, treat and dispose the 250 TPD of Municipal Solid Waste being daily generated within the area of the Respondent No. 1 Corporation.

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b. The Respondent No. 1 Corporation on 20.09.2019 has entered into an agreement with M/s Ganga Trading Company in JV with P.H. Jadhav for the work of, "Design, Supply, Installation, Erection and Commission of Municipal Solid Waste processing plant along with associated Civil Work at various locations in Amravati (with operation and maintenance for three years)." The Respondent No. 1 Corporation has entered into a single agreement for setting up of the MSW Processing Plants at three sites within the Respondent No. 1 Corporation viz. Zone I- Sukali Compost Depot site having a capacity of 200 TPD, Zone II- Akoli Bypass Site having a capacity of 100 TPD and Zone III- Kondeshwar Naka, Badnera Site having a capacity of 50 TPD. A copy of the agreement dated 20.09.2019 between Respondent No. 1 Corporation and M/s Ganga Trading Company in JV with P.H. Jadhav is enclosed herewith as **Annexure A-34**.

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c. The Respondent No. 1 Corporation on 20.09.2019 has also issued a work order to M/s Ganga Trading Company in JV with P.H. Jadhav for the work of, "Design, Supply, Installation, Erection and Commission of Municipal Solid Waste processing plant along with associated Civil Work at various locations in Amravati (with operation and maintenance for three years)." According to the work order, the construction work, in terms of the agreement dated 20.09.2019 was to be completed within six months from the date of signing of contract agreement excluding the rainy season and the duration for operation and maintenance of machinery was for three years from completion of the construction work as mentioned in the agreement. A Copy of the work order dated 20.09.2019 issued by the Respondent No. 1 Corporation to the M/s Ganga Trading Company in JV with P.H. Jadhav is enclosed herewith as **Annexure A-35.**

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d. The Respondent Corporation is setting up Municipal Solid Waste Management Processing plant at three different sites as follows:

A. Sukali Dumping Ground MSW Processing Plant having a capacity of 200 TPD:

a. The Respondent No. 1 Corporation had issued a work order dated 20.09.2019 to M/s Ganga Trading Company in JV with P.H. Jadhav for the work of, "Design, Supply, Installation, Erection and Commission of Municipal Solid Waste processing plant along with associated Civil Work at various locations in Amravati (with operation and maintenance for three years)." In terms of the work order dated 20.09.2019, the contractor of the Respondent No. 1 Corporation ought to have completed the construction work within six months from the date of signing of the contract, excluding the rainy season. However, the Authorization under the Solid Waste Management Rules, 2016 to the Municipal Solid Waste Processing Plant of the Respondent No. 1 Corporation at Survey No. 155 and 156, Pet (Sukali), Amravati was accorded by the Maharashtra Pollution Control Board only on 01.01.2020 and therefore the construction work at the MSW Plant at Sukali could commence only after obtaining the authorization in accordance with law. A Copy of the Authorization under the Solid Waste Management Rules, 2016 dated 01.01.2020 is enclosed herewith as **Annexure A-36.**

b. In terms of the Authorization dated 01.01.2020, the construction at Survey No. 155 and 156, Peth (Sukali), Amravati of the MSW Plant along

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with its allied Civil Works commenced immediately in terms of the work order dated 20.09.2019 of the Respondent No. 1 Corporation. However, as a consequence of the COVID-19 Pandemic, a complete lockdown was imposed by the Union of India from 24.03.2020, to fight the COVID-19 Pandemic. As a result of the said lockdown the construction work at the Sukali MSW Processing Plant site came to a stand-still as on 24.03.2020 and was only resumed in October, 2020 as in the interregnum period from June 2020 to September 2020, the State of Maharashtra witnessed its seasonal rainfall. The Contractor has commenced the construction at of the MSW Processing Plant at Sukali along with its allied civil work and is currently building the Foundation of the Material Recovery Facility (MRF) Shade. In order to commence the processing of the MSW at the Sukali MSW Processing Plant, the Respondent No. 1 Corporation immediately needs to set up the MRF shade and the Windrow Platform. Once the MRF Shade and the Windrow Platform are constructed, the Respondent No. 1 Corporation shall be in position to commence the processing of the 200 TPD out of the 250 TPD of MSW being generated on daily basis within the Respondent No. 1 Corporation. The Building Foundation of the MRF Shade of the MSW Processing Plant at Sukali has been completed. The Civil Work of the Windrow Platform and Tipping Area have also been completed. However, due to a lockdown imposed by the District Collector of Amravati on 21.02.2021, the Civil Work of the MRF Shade and the Leachate Collection chamber has not been completed. It is pertinent to note that, the Civil Work of the MRF Shade also includes gas welding work. For undertaking any welding work, certain amount of Industrial Oxygen is necessary. However, due to the shortage of oxygen, the welding work of the MRF Shade has been pending since February, 2021. The Central Government, through the Ministry of Home Affairs on 22.04.2021 had issued an order restricting the use of Industrial Oxygen. Thereafter, the Central Government, reviewed the oxygen supply situation within the country and with immediate effect decided that the use of Liquid Oxygen, including the existing stock, would be allowed for medical purposes only and that all manufacturing units may be allowed to maximize their production of Liquid Oxygen and make it available to the Government for medical purposes only. Therefore, the Central Government on 25.04.2021 directed all the State Governments to ensure the use of Liquid Oxygen for medical purposes only, with immediate effect until further orders. No

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exception is allowed to any industry with regards to the use of Liquid Oxygen. Therefore, the Respondent No. 1 states that the welding work of the MRF Shade can only be undertaken once the ban on the use of Industrial Oxygen is lifted by the Central Government. The Civil Work for the Leachate Collection Chamber can only commence once the drainage for the MRF Shade and Windrow platform is completed. The drainage system for the Windrow platform is completed however the same is pending with regards to the MRF Shade for reasons mentioned herein above. The Leachate Collection Chamber shall be completed once the work of the MRF Shade is completed.

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c. The MRF shade comprises of three sections viz. Pre-Sorting Section, Preparatory Section and Finishing Section. The Pre-Sorting Section has a Feed Conveyer (14 mtr length x 1 mtr width), Tromell 100 mm (7.25 mtr x Dia. 2.25 mtr), Accept Conveyer < 100 mm (13 mtr x 1 mtr), Reject Conveyer > 100 mm (8 mtr x 1 mtr) and Electrical Control Panel with cabling. The Preparatory Section comprises of Feeding Conveyer (13 mtr x 1 mtr), Tromell 35 mm (7 mtr x Dia 2 mtr), Accepts Conveyer <35mm (18 mtr x 0.8 mtr), Rejects Conveyer>35 mm (8 mtr x 0.8 mtr), Tromell 16 mm (7 mtr x Dia 2 mtr), Accepts Conveyer <16mm (17 mtr x 0.8 mtr), Rejects Conveyer>16 mm (8 mtr x 0.8 mtr), Electrical Control Panel (Provided separately for this section). The Finishing Sections comprises of Feeding Conveyer (13 mtr x 0.8 mtr), Tromell 4 mm (6 mtr x Dia 1.8 mtr), Accepts Conveyer <4 mm (18 mtr x 0.6 mtr), Rejects Conveyer>4 mm (6 mtr x 0.6 mtr), Electrical Control Panel (Provided separately for this section). The Organic Waste generated during processing the MSW is further shredded and thereafter is stored at the Windrow Platform. The Organic Waste at the Windrow Platform is processed with Bio-Culture and is stored for 21 days at the Windrow Platform for aerobic digestion, after which the Organic Waste starts converting into Organic Manure. The Respondent No. 1 Corporation states that for the purpose of erecting plant and machinery within the MRF Shade and the Windrow Platform, the Respondent No. 1 would also require to undertake certain welding work. However, as a consequence of the ban imposed by the Ministry of Home Affairs, Central Government for the use of Liquid Oxygen only for medical purposes until further order, there is an uncertainty as to when the Liquid Oxygen would be available for industrial use. Therefore, in such circumstances, the Respondent No. 1 cannot undertake with certainty as

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to when the MSW processing plant at Sukali shall be operative. However, once the ban on the use of Liquid Oxygen is lifted by the Central Government, the Respondent No. 1 undertakes to file a further Affidavit, spelling out a time schedule to make the MSW processing plant at Sukali to be operative. A copy of the photographs of the Civil Work Undertaken at the MRF Shade of the MSW Plant at Sukali are enclosed herewith as **Annexure A-37.** A Copy of the list of Machineries to be erected at the MRF shade at Sukali Dumping Ground is enclosed herewith as **Annexure A-38.**

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B. Akoli Bypass MSW Processing Plant having a capacity of 100 TPD:

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a. The Respondent No. 1 Corporation had issued a work order dated 20.09.2019 to M/s Ganga Trading Company in JV with P.H. Jadhav for the work of, "Design, Supply, Installation, Erection and Commission of Municipal Solid Waste processing plant along with associated Civil Work at various locations in Amravati (with operation and maintenance for three years)." In terms of the work order dated 20.09.2019, the contractor of the Respondent No. 1 Corporation ought to have completed the construction work within six months from the date of signing of the contract, excluding the rainy season. However, the Authorization under the Solid Waste Management Rules, 2016 to the Municipal Solid Waste Processing Plant of the Respondent No. 1 Corporation at Plot No. 01 and 03 under sheet No. 26B, Mauja Akoli Ring Road, Badnera, Amravati was accorded by the Maharashtra Pollution Control Board only on 11.03.2020 and therefore the construction work at the MSW Plant at Akoli could commence only after obtaining the authorization in accordance with law. The Copy of the Authorization to Akoli Ring Road MSW Processing Plant under the Solid Waste Management Rules, 2016 dated 11.03.2020 is enclosed herewith as **Annexure A-39.**

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b. In terms of the Authorization dated 11.03.2020, the construction at Plot No. 01 and 03 under sheet No. 26B, Mauja Akoli Ring Road, Badnera, Amravati of the MSW Plant along with its allied Civil Works had just commenced and the Respondent No. 1 Corporation begun clearing the site for undertaking further civil works, immediately in terms of the work order dated 20.09.2019 of the Respondent No. 1 Corporation. However, as a consequence of the COVID-19 Pandemic, a complete lockdown was imposed by the Union of India from 24.03.2020, to fight the COVID-19

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Pandemic. As a result of the said lockdown the construction work at the Akoli Ring Road site MSW Processing Plant site came to a stand-still as on 24.03.2020 and was only resumed only in last week September, 2020 as in the interregnum period from June 2020 to September 2020, the State of Maharashtra witnessed its seasonal rainfall. The Contractor has commenced the construction at of the MSW Processing Plant at Akoli Ring Road along with its allied civil work and has completed the construction of the Windrow Platform, Segregation Platform, Leachate Collection Chamber, MRF Shade and Tipping Area. The Civil Work on site for Weighbridge, Security Room, Office Block and Ancillary Infrastructure is completed and the entire civil work of the Akoli Ring Road MSW Processing Plant is completed. The MSW Plant Machinery of the Akoli Ring Road Site has been received by the Respondent No. 1 Corporation on 06.11.2020 and the erection and installation of the same is completed.

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c. The Respondent No. 1 corporation has also undertaken a trial run of the MSW Plant located Plot No. 01 and 03 under sheet No. 26B, Mauja Akoli Ring Road, Badnera, Amravati having a capacity of processing 100 TPD of MSW in the first week of February, 2021. The trial run undertaken by the Respondent No. 1 was a successful trial run (backed up by gen-sets), however, the Respondent No. 1 is in the final stages of obtaining its electrical connection from the Maharashtra State Electricity Board. Once the electrical connections are approved, the Respondent No. 1 would be in a position to commence the operations of the MSW Plant having a 100 TPD capacity at Akoli Ring Road, Badnera, Amravati. A copy of the photographs showing the trial run undertaken by the Respondent No. 1 at the MSW Plant are enclosed herewith as **Annexure A-40.**

d. Thus, the Respondent No. 1 Municipal Corporation undertakes to make the MSW Plant located at Plot No. 01 and 03 under sheet No. 26B, Mauja Akoli Ring Road, Badnera, Amravati having a capacity of processing 100 TPD of MSW operational on or before June, 2021.

C. Kondeshwar Naka, Badnera MSW Processing Plant having a capacity of 50 TPD:

a. At the outset, it is submitted that a total quantity of 250 TPD of MSW is generated within the jurisdiction of the Respondent No. 1 Corporation daily. The MSW Plant at Sukali has a capacity of processing 200 TPD of MSW and the MSW plant at Akoli Ring Road Site has a capacity of Processing 100

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TPD of MSW. Therefore, once the MSW plant at Sukali and Akoli become operative, 250 TPD of MSW daily generated within the Respondent No. 1 Corporation shall be processed at the MSW Plant at Sukali and Akoli. There shall be no MSW which shall remain unprocessed within the Respondent No. 1 Corporation once the MSW plant at Sukali and Akoli Ring Road Commence operation.

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b. In order to meet the requirements of the growing population within the Respondent No. 1 Corporation, the Respondent No. 1 Corporation has principally agreed to set up a MSW Processing Plant having a capacity of 50 TPD at Kondeshwar Naka, Badnera. Accordingly, the Respondent No. 1 Corporation has obtained the Authorization under the Solid Waste Management Rules, 2016 for setting up a MSW Plant at Survey No. 110, Kondeshwar Naka, Badnera, Amravati having a capacity of 50 TPD from the Maharashtra Pollution Control Board on 11.03.2020. The copy of the Authorization for Kondeshwar Naka, Badnera MSW Plant issued by the Maharashtra Pollution Control Board dated 11.03.2020 is enclosed herewith as **Annexure A-41**.

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c. Survey No. 110, Kondeshwar Naka, Badnera, Amravati, the site identified by the Respondent No. 1 Corporation for setting up MSW Plant had 54 trees on the site. The said trees had to be removed and the Respondent No. 1 Corporation had to obtain the permission from the competent authorities in accordance with law, which was accorded on 17.02.2020. However, since the MSW generated within the Respondent No. 1 Corporation is processed at Sukali as well the Akoli Ring Road processing plant, no MSW is being generated which shall be unprocessed and therefore the Respondent No. 1 Corporation shall further commence with the Construction of the MSW Processing Plant at Kondeshwar Naka as and when need be.

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10. Compliance of Directions in 3(iii) of the Order dated 22.09.2020:

a. The Respondent No. 1 Corporation has been substantially taking steps for collections and scientific disposal of Bio-Medical Waste and Bio-Hazardous waste generated within the municipal limits of the Respondent No. 1 Corporation. A total number of 212 hospitals are effectively operating in the area under the Respondent No. 1 Corporation and in order to scientifically dispose the Bio-medical and Bio-hazardous waste generated within the limits of the Respondent No. 1 Corporation, the Respondent No. 1 Corporation on

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24.01.2003 has entered into an agreement with one M/s Global Eco Save System. A copy of the agreement between M/s Global Eco Save System and Respondent No. 1 Corporation of Amravati dated 24.01.2003 is enclosed herewith as **Annexure A-42**.

b. The Central Pollution Control Board on 21.12.2016 has issued guidelines for Common Bio-Medical Waste Treatment and Disposal Facility, in accordance with Bio-Medical Waste Management Rules, 2016. The Respondent No. 1 Corporation has been disposing of its Bio-medical Waste in accordance with the CPCB Guidelines dated 21.12.2016. The Respondent No. 1 Corporation has common Bio-medical Waste and Management Facility situated at Durgapur Road, Badnera, Dist. Amravati. The Bio-Medical Waste and Management facility situated at Durgapur Road, Badnera, Dist. Amravati caters to the Bio-Medical waste generated in the entire Amravati Region. The Amravati Region consist of the entire District of Akola and Amravati and part of Washim, Yavatmal and Buldhana (Council). The Bio-Medical Waste generated within the area of the Respondent No. 1 Corporation forms a part of the Bio-Medical Waste sent to the Common Bio-Medical waste and Management facility situated at Durgapur Road, Badnera, Dist. Amravati. The Maharashtra Pollution Control Board on 07.06.2003 has accorded its authorization for operating a facility for processing the Bio-Medical Waste to M/s Global Eco Save System, Amravati who is the operator of the Respondent No. 1 Corporation in terms of the agreement dated 24.01.2003 for the entire Amravati Region. A copy of the Authorization Letter dated 07.06.2003 is enclosed herewith as **Annexure A-43**.

c. Thereafter, the Bio-medical Waste Management Facility of the Respondent No. 1 Corporation became operative on 30.06.2003 and has been operating in accordance with law. Recently, the operator of the Bio-Medical Waste Management Facility of the Respondent No. 1 Corporation on 30.12.2019 made an Application to the Maharashtra Pollution Control Board for the renewal of its consent to operate accorded to the Bio-Medical Waste Facility of the Respondent No. 1 Corporation. The Maharashtra Pollution Control Board vide its order dated 04.09.2020, has accorded the consent to operate to the Bio-Medical Waste Facility of the Respondent No. 1 Corporation up to 31.12.2023. The Respondent No. 1 Corporation is undertaking the disposal of the Bio-Medical Waste generated within its jurisdiction as per the consent to operate dated 04.09.2020, granted by the Maharashtra Pollution Control Board, in accordance with law. A copy of the consent to operate dated

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04.09.2020 to the Bio-Medical Waste Facility is enclosed herewith as **Annexure A-44.**

d. On perusing the Consent to Operate dated 04.09.2020, granted to the operator of the Respondent No. 1 Corporation up to 31.12.2023 by the Maharashtra Pollution Control Board, the permissible operational capacity of the incinerator at the Bio-Medical Waste and Management facility of the Respondent No. 1 Corporation is 5,400 Kg/day and the Autoclave has an operational capacity of 18 cycles/day (Each Cycle 90 min). The Respondent No. 1 Corporation through its operator has recorded the Bio-Medical Waste generated for the month of October 2020. On perusing the data, it is apparent that a total of 14,211.02 Kg of Bio-Medical Waste was generated for the month of October 2020. A copy of the data of the Bio-medical waste generated for the month of October, 2020 within the Respondent No. 1 Corporation is enclosed herewith as **Annexure A-45.** Further, the Respondent No. 1 Corporation through M/s Global Eco Save System has also recorded the total Bio-Medical Waste generated for the month April, 2021. On perusing the data, it is apparent that a total of 13,112.33 kg of Bio-Medical Waste was generated within the jurisdiction of the Respondent No. 1 Corporation in the month of April, 2021. A copy of the data of the Bio-Medical Waste generated within the jurisdiction of the Respondent No. 1 in the month of April, 2021 is enclosed herewith as **Annexure A-46.**

Simultaneously, the Respondent No. 1 Corporation has also recorded the COVID-19 waste data for the month of October 2020. A total of 8390 Kgs of COVID-19 waste was generated within the area of the Respondent No. 1 Corporation. A copy of the COVID-19 data generated within the area of Respondent No. 1 Corporation in the month of October, 2020 is enclosed herewith as **Annexure A-47.** Also, the Respondent No. 1 Corporation, through M/s Global Eco Save System has recorded the total COVID-19 waste data generated within the jurisdiction of the Respondent No. 1 for the month of April, 2021. On perusing the data, it is apparent that a total of 13,665.8 kgs of COVID-19 waste was generated within the jurisdiction of the Respondent No. 1 in the month of April, 2021. A copy of the COVID-19 data generated within the area of Respondent No. 1 Corporation in the month of April, 2021 is enclosed herewith as **Annexure A-48.**

e. The consent to operate dated 04.09.2020, permits the incineration treatment of the Bio-Medical Waste of 5,400 Kg/day. The Bio-Medical waste generated within the Appellant Corporation as can be seen from the recorded data of

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October, 2020 (i.e. 14211.02 kg for Bio-Medical Waste and 8,390 Kg for COVID-19 waste) and April, 2021 (i.e. 13,112.33 Kgs for Bio-Medial Waste and 13,665.8 kgs for COVID-19 waste) is much less than the capacity of the incineration technology adopted by the Respondent No. 1 Corporation at the Common Bio-Medical Waste Facility of the Respondent No. 1 Corporation situated at Durgapur Road, Badnera, Dist. Amravati. Thus, the disposal of the Bio-Medical Waste within the Respondent No. 1 Corporation is in accordance with the law.

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The hospitals within the area of the Respondent No. 1 Corporation, in accordance with Bio-medical Waste Rules, 2016 are segregating the Bio-medical waste at source in different colored disposal bags, easy for identification. The Respondent No. 1 Corporation has appointed M/s Global Eco Save System as a contractor for Collection, Transportation, Treatment and Disposal of Bio-Medical Waste. However, a few hospitals were not complying with the Guidelines issued for the disposal of Bio-medical waste within their area and the same having been traced by the Respondent No. 1 Corporation on 23.10.2020. Two hospitals namely, Kavimandal Hospital and Dr. Khatri have been fined with a fine to the tune of Rs. 5000 each for illegally disposing the Bio-Medical Waste. A copy of the receipts of the fines imposed on hospitals is enclosed herewith as **Annexure A-49.**

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11. Compliance of Directions 3(iv) of the Order dated 22.09.2020:

a. This Hon'ble Tribunal by its Notice bearing No. O. W. No. NGT/WZ/PUNE/626/2020 dated 24.09.2020 in terms of the direction 3(iv) in the order dated 22.09.2020, had issued a Show Cause Notice to the Respondent No. 1 for compliance. A copy of the Show Cause Notice bearing No. O. W. No. NGT/WZ/PUNE/626/2020 dated 24.09.2020 issued by this Hon'ble Tribunal is enclosed herewith as **Annexure A-50.**

b. For the reasons stated hereinabove, the officers of the Respondent No. 1 Corporation have been making every endeavor to resolve the issue of Legacy Waste, Municipal Solid Waste and the Bio-Medical Waste being generated within the area of Respondent No. 1 Corporation. The work for clearing the Legacy Waste by process of Bio-remediation and Bio-mining has been undertaken by the Respondent No. 1 Corporation diligently. However, due to the wide spread pandemic and the lockdown imposed by the Government of India the timelines for executing the said work have been revised. Also, three new Municipal Solid Waste Plants/Projects having a total capacity of 350 TPD

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shall be commissioned in accordance to the timelines mentioned before the Hon'ble Tribunal which shall tackle the Municipal Solid Waste being generated within the area of Respondent No. 1 Corporation completely in accordance with law. The Common Bio-medical Waste Treatment and Disposal Facility of the Respondent No. 1 Corporation is sufficient to tackle the Bio-medical waste currently being generated within the area of Respondent No. 1 Corporation. In such circumstances, admittedly though there has been a delay in executing the compliance of the Legacy Waste as well the Municipal Solid Waste, the same being unintentional, no coercive action should be initiated against the officers of Respondent No. 1 Corporation.

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12. Compliance of Direction 3(v) of the Order dated 22.09.2020:

a. After 22.09.2020, the present case was listed on 04.11.2020 before this Hon'ble Tribunal whereby it was adjourned to 16.12.2020. Further, on two occasions i.e. 16.12.2020 and 15.02.2021 the present case was listed before this Hon'ble Tribunal whereby it was adjourned to 23.04.2021. The Municipal Commissioner of the Respondent No. 1 Corporation was available to assist the court on the all dates when the present case was listed before this Hon'ble Tribunal. The Municipal Commissioner further undertakes to make himself available on the next date of hearing for assisting the Hon'ble Tribunal.

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Whatever stated herein above is true and correct to the best of my knowledge and belief and nothing material has been concealed there from. Also, the Annexures enclosed herewith this Affidavit are true copies of the Original Documents. Solemnly affirmed at Amravati on _____ day of May, 2021.

N.R.S. No. 1567/2021 Dt. 12.5.2021 THIS DOCUMENT CONTAINS ..... PAGES

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LAW OFFICER Municipal Corporation Amravati

DEPONENT

I do swear in the name of God solemnly affirm That, This is my name and signature (or mark) and that the Contents of this my affidavit are true and correct.

Signature of deponent After Attestation

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ITEM NO.17 Court 8 (Video Conferencing) SECTION XVII

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

Civil Appeal No(s).4020/2020

AMRAVATI MUNICIPAL CORPORATION Appellant(s)

VERSUS

GANESH DADARAO ANASANE & ORS. Respondent(s)

(IA No.129690/2020-EXEMPTION FROM FILING C/C OF THE IMPUGNED JUDGMENT and IA No.129691/2020-STAY APPLICATION and IA No.129692/2020-PERMISSION TO FILE ADDITIONAL DOCUMENTS/FACTS/ ANNEXURES)

Date : 18-12-2020 This appeal was called on for hearing today.

CORAM :
HON'BLE MR. JUSTICE L. NAGESWARA RAO
HON'BLE MR. JUSTICE HEMANT GUPTA
HON'BLE MR. JUSTICE AJAY RASTOGI

For Appellant(s) Mr. Nikhil Nayyar, Sr Adv.
Mr. Sangramsingh Bhonsle, Adv
Mr. Siddharth Mehta, Adv
Ms. Samridhi Jain, Adv
Nrupal Dingankar, Adv
Ms. Anshula Vijay Kumar Grover, AOR

For Respondent(s) Mr. Mukesh Verma, Adv
Mr. Yash Pal Dhingra, AOR

UPON hearing the counsel the Court made the following
O R D E R

Mr.Nikhil Nayyar, learned senior counsel appearing for the appellant submitted that a compliance report of all directions except the one in Para 3(i) shall be filed within a period of two weeks.

Issue notice returnable after three weeks.

In the meanwhile, directions for realisation of an amount of Rs.47,23,45,000/- is stayed.

Signature Not Verified
Digitally signed by BALA PARVATHI
Date: 2020.12.19 13:00:43 IST
Reason:

(B.Parvathi)
Court Master

(Beena Jolly)
Court Master

-TRUE COPY-

N.R.S. No. I/22/2021

ANNEXURE A-2457

IN THE SUPREME COURT OF INDIA

CIVIL APPELLATE JURISDICTION

CIVIL APPEAL NO. 4020 OF 2020

(Under Section 22 of the National Green Tribunal Act, 2010)

[Arising out of the Impugned Order dated 22.09.2020 passed by the National Green Tribunal, Principal Bench, New Delhi in Original Application No. 60 of 2019 (WZ)]

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IN THE MATTER OF

Amaravati Municipal Corporation ... Appellant

Versus

Ganesh Dadarao Anasane and Ors. ... Respondents

NOTARY

COMPLIANCE AFFIDAVIT OF THE APPELLANT IN TERMS OF THE ORDER DATED 18.12.2020.

To,
The Hon'ble Chief Justice of India
and His Companion Justices of the
Hon'ble Supreme Court of India.

I, Mr. Shrikant Ishwarsingh Chauhan, Age: 34 Years, Occupation: Law Officer, Amravati Municipal Corporation, Having Office At: Rajkamal Chowkh, Amravati 444 603, District: Amravati, Maharashtra, do hereby state on solemn affirmation as:

1. That I am the Authorized Representative of the Appellant and as such, well versed with the facts and circumstances arising in the present Civil Appeal.
2. Vide the Present Civil Appeal No. 4020 of 2020, the Appellant, under Section 22 of the National Green Tribunal Act, 2010 has challenged the

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order dated 22.09.2020 passed by the Hon'ble National Green Tribunal, Principal Bench, New Delhi in Original Application No. 60 of 2019 (WZ), wherein the Hon'ble Tribunal has directed the Respondent No. 3 to issue notice to the Appellant for realization of the Environmental Compensation of Rs. 47,23,45,000/- and to proceed to realize the same in accordance with law.

3. Inter-alia, the Hon'ble Tribunal vide the Impugned Order dated 22.09.2020, has further directed as follows:

"3. AMC is directed to see the matter and do the needful. The MPCB has assessed EC of about Rs. 47,23,45,000/-. As per discussion made above, we direct as follows:

(i) MPCB is directed to issue notice to AMC for realisation of EC and to proceed to realise it in accordance with law.

(ii) AMC is directed to dispose of all legacy waste and waste generated within a time frame and submit the report before the date of listing.

(iii) The waste generated from COVID-19, containing PPE kit and other COVID-19 hospital biomedical waste which is reported to be transported by Amrawati Municipal Waste Transporter Contractor vehicles, be taken care and may be dealt, collected, transported and dispose of according to rules separately with consultation to Chief Medical Officer, Amrawati and should be disposed of according to Bio medical Waste Management Rules, 2016.

(iv) A show cause notice be issued to the AMC as to why the necessary and preliminary action be not initiated and forwarded against the officials and officers working there and not enable to control and manage the solid waste management according to the rules and why the necessary and preliminary action should not be initiated against them for non-compliance of the rules.

v) On the next date of listing, Municipal Commissioner, Amrawati will remain present at the time of hearing through Video Conference with

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future action plan as to how they manage to dispose the legacy waste and waste generated day to day."

4. The Respondent No. 1 viz. Mr. Ganesh Dadarao Anasane filed an Original Application No. 60 of 2019 (WZ) u/s 14 of the National Green Tribunal Act, 2010 raising a substantial question pertaining to the alleged illegal disposal of Municipal Solid Legacy Waste, Municipal Solid Waste Management and Bio-Medical Waste being generated within the area of the Appellant Corporation.

5. The present Civil Appeal No. 4020 of 2020, was heard by this Hon'ble Court on 18.12.2020, whereby this Hon'ble Court on a statement made by the Ld. Counsel appearing on behalf of the Appellant that, a Compliance Report of all directions except the one in Para 3 (i) of the Impugned Order (*Directions are reproduced herein above in Para 3 for the convenience of this Hon'ble Court*) shall be filed within a period of two weeks, was pleased to stay the direction for realization of amount Rs. 47,23,45,000/-. In pursuance of the undertaking given by the Ld. Counsel appearing on behalf of the Appellant, the Appellant vide the present Compliance Affidavit seek to file the Compliance Report of the Remaining Directions as undertaken by the Appellant.

6. Compliance Status of the Directions of the Order dated 22.09.2020 passed by the Hon'ble National Green Tribunal, Principal Bench in O.A. No. 60 of 2019 (WZ).

I. Compliance of Direction 3(ii) of the Order dated 22.09.2020:

i. In terms of direction 3(ii) of the order dated 22.09.2020, the Hon'ble Tribunal had directed the Appellant to dispose of all legacy waste and waste generated within a time frame and submit the report before the date of listing.

ii. In order to comply with direction 3(ii) of the order dated 22.09.2020 passed by the Hon'ble Tribunal the Appellant Corporation is implementing the following processes:

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- Bio-Remediation and Bio-Mining through scientific reclamation of the Sukali Dumping Site for Legacy Waste.
- Erection of Municipal Solid Waste Management Plant at:
  - Sukali Dumping Ground having a capacity of 200 TPD.
  - Akoli Bypass Dumping Ground having a capacity of 100 TPD.
  - Kondeshwar Naka, Badnera Dumping Ground having a capacity of 50 TPD.

iii. **Bio-Remediation and Bio-Mining through scientific reclamation of the Sukali Dumping Site for Legacy Waste**:

a. The Legacy Waste within the jurisdiction of the Appellant Corporation is an issue pertaining to the Waste being dumped at the Sukali Dumping Ground. The total area of the Sukali Dumping Ground is 12 Ha out of which only 9.35 Ha is currently in possession of the Appellant Corporation. A railway track occupying 0.8 Ha passes through the Sukali Dumping Ground towards the East Side, a land admeasuring 1.4 Ha beyond the railway track on the Sukali Dumping Ground is inaccessible to the Appellant Corporation as a consequence of the Railway Track on the Eastward side of the Sukali Dumping Ground. Also, a road admeasuring 0.8 Ha passes through the westward side of the Sukali Dumping Ground and therefore, only an area of 6.35 Ha is available for undertaking dumping at the Sukali Dumping Ground.

b. The State of Maharashtra on 07.06.2017, directed the Appellant to prepare a Detailed Project Report (DPR) regarding the Solid Waste Management under the "Swachh Maharashtra Mission (Urban)" carried out under the "Swachh Bharat Abhiyan" for the Municipal Solid Waste (MSW) management. The Appellant was informed that M/s Mars Planning and Engineering Services Pvt. Ltd. was appointed for the preparation of the Detailed Project Report (DPR) of the Solid Waste Management in all local bodies of Amravati

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region. The Detailed Project Report which was to be prepared by M/s Mars Planning and Engineering Services Pvt. Ltd. also included the study for earmarking of the Sukali Dumping Site of Legacy Waste for the "***Scientific Reclamation of the Dumpsite through Bio-Mining***". It is important to note that the Detailed Project Report which was to be prepared by M/s Mars Planning and Engineering Services Pvt Ltd was also considering the project for erection of the Municipal Solid Waste Plants having capacity of 200 TPD at Sukali Dumping Ground, 100 TPD at Akoli Bypass Dumping Ground and 50 TPD at Kondeshwar Naka Badnera. The Copy of the letter dated 07.06.2017 issued by the State of Maharashtra to the Appellant is enclosed herewith as **Annexure R-1**.

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c. In terms of the letter issued by the State of Maharashtra, the Appellant Corporation approached M/s Mars Planning and Engineering Pvt. Ltd. Accordingly, M/s Mars Planning and Engineering Pvt. Ltd. prepared a Detailed Project Report (DPR) under the "Swachh Maharashtra Mission (Urban)" dated 12.12.2017. The Detailed Project Report had proposed an appropriate system of Solid Waste Management for Amravati (Amravati District), looking into the various aspects of Collection, Transportation, Processing and Disposal. The Detailed Project Report dated 12.12.2017, commented that the Appellant was managing the Solid Waste in two steps (a) Collection of Waste door to door and transportation up to storage bins and (b) Transportation of waste from Storage bins to Dumping Site. Considering the process adopted by the Appellant Corporation, it was proposed that the Detailed Project Report ought to be prepared for the Waste Treatment and Disposal only including Bio-Mining at the Sukali Dumping Ground, for the reclamation of the

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required land. The Report considered issues such as (a) Waste Segregation at Source, (b) Collection and Transportation, (c) Waste Processing, (d) Waste Disposal, (e) Capital Requirement, (f) O & M requirements (Operation and Maintenance), (g) Proposed funds for Capital Expenditure and (h) Proposed funds for O & M Expenditure. The Report in its Chapter 6, "Proposed MSWM System" has carried out a survey in Chapter 6.4.6, "Cleanup of Old Open Dumps". As per the filed visit that was carried out, it was observed that the Legacy Waste at the Sukali Dumping Site was covered with waste having average length of 321.82 Mtrs, Width of 200 Mtrs and a height of 2.05 Mtrs (*As on 12.12.2017*). Thus, the quantity of the Legacy Waste that was admeasured at the Sukali Dumping Site as on 12.12.2017 in the Detailed Project Report as prepared by M/s Mars Planning and Engineering Pvt. Ltd. was about 1,31,945 m^3. The Detailed Project Report of 12.12.2017, suggested that Bio-Mining was the most successful example of clearing of all existing dumps of untreated garbage whereby, 90% of the old dump could be removed and the land could be reclaimed without moving the waste to any other place. Accordingly, an amount of Rs. 8,24,75,930/- was the estimated cost suggested in the Detailed Project Report dated 12.12.2017 of M/s Mars Planning and Engineering Pvt. Ltd. for Bio-Mining of Old Dumped Legacy Waste Site at the Sukali Dumping Ground. The Copy of the Detailed Project Report (DPR) dated 12.12.2017 is enclosed herewith as **Annexure R-2**.

d. The Appellant Corporation on 19.12.2017, considered the approval of the Detailed Project Report dated 12.12.2017 of M/s Mars Planning and Engineering Pvt. Ltd. By a Resolution bearing No. 71, the Detailed Project report dated 12.12.2017 was discussed at length and accordingly, an Administrative Approval was accorded

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to the Detailed Project Report and a Resolution was passed unanimously. It was further agreed that the Detailed Project Report was to be sent to the Government of Maharashtra for its final approval. The copy of the extracts of the Resolution No. 71 passed in the General Meeting dated 19.12.2017 is enclosed herewith as **Annexure R-3**.

e. By a letter dated 21.12.2017, the Appellant Corporation submitted the Detailed Project Report dated 12.12.2017 to Maharashtra Urban Development Mission Directorate, Swachh Maharashtra Mission (U), Government of Maharashtra seeking its approval for the Detailed Project Report dated 12.12.2017. The Copy of the letter dated 21.12.2017 to the Government of Maharashtra issued by the Appellant Corporation is enclosed herewith as **Annexure R-4**.

f. The State Mission Director, Swachh Maharashtra Mission (U) by a letter dated 12.02.2018, forwarded the Detailed Project Report dated 12.12.2017 to CSIR-NEERI Nagpur to appraise the Detailed Project Report technically as per the MOHUA Guidelines and SWM Rules, 2016. Once the Technical Approval of the CSIR- NEERI was accorded, the report was to be sent back to the Government of Maharashtra. The copy of letter dated 12.02.2018 issued by the Government of Maharashtra to the CSIR- NEERI, Nagpur is enclosed herewith as **Annexure R-5**.

g. The Urban Development Department of Government of Maharashtra by a Government Order dated 13.11.2018 had previously constituted a committee under the Chairmanship of Commissioner/ Director Municipal Administration to study and to implement the Bio-Mining process for scientific process for Solid Waste which was collected without any process in the cities of the state. As per the recommendations of this committee, the

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permission had been granted to establish Bio-Mining pilot project only in selected cities. Considering the experiences of such pilot project, the Government of Maharashtra was considering to grant permission to other cities of the state for conducting Bio-Mining Process. Accordingly, by a Government Order dated 13.11.2018, the Government of Maharashtra accorded permission for Bio-Mining Processes to cities mentioned in Index A (Appellant Corporation at No. 178), subject to the condition that it was necessary for the Appellant Corporation to take modified technical permission considering that the rates for the Bio-Mining were modified. Thus, it was necessary for the Appellant Corporation to take modified technical permission in terms of the order dated 13.11.2018 passed by the Urban Development Department, Government of Maharashtra. The Copy of the order dated 13.11.2018 passed by the Urban Development Department, Government of Maharashtra is enclosed herewith as **Annexure R-6**.

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h. The Urban Development Department, Government of Maharashtra in the order dated 16.11.2018 observed that the Government of Maharashtra had granted permission to the Solid Waste Management project of Rs. 40.7087/- Crores to Amravati Municipal Corporation under the "Swachh Maharashtra Mission (Urban)". Out of the Rs. 40.7087/- Crores and amount of Rs. 14.24/- Crores were allotted from the Central Government, an amount of Rs. 9.49/- Crores was accorded by the State Government and the balance amount of Rs. 16.96/- was to be utilized from the funds allotted under the 14th Finance Commission to the Appellant Corporation. Vide the order dated 16.11.2018, the rates for Bio-Mining were modified and therefore the Appellant was directed to obtain technical permission from Water Supply

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and Sanitation Department of the Government of Maharashtra prior to implementing the Bio-Mining Project. The copy of the order dated 16.11.2018 passed by the Urban Development Department, Government of Maharashtra is enclosed herewith as **Annexure R-7**.

i. In terms of the order passed by the Urban Department, Government of Maharashtra dated 16.11.2018, the Appellant Corporation was directed to modify its rates for Bio-mining at Rs. 420/m^3 and accordingly obtain technical permission from Water Supply and Sanitation Department of the Government of Maharashtra. Accordingly, the Appellant Corporation has obtained a technical permission on 20.11.2018 for the Bio-mining of the Legacy Waste accumulated at Sukali Dumping Ground from Maharashtra Jeevan Pradhikaran, Water Supply and Sanitation Department, Government of Maharashtra. Thus, an amount of Rs. 5,54,16,732/- was sanctioned for the purpose of Bio-mining of the Legacy Waste dumped at the Sukali Dumping Ground admeasuring 1,31,945 m^3. The copy of the technical permission dated 20.11.2018 issued by the Maharashtra Jeevan Pradhikaran is enclosed herewith as **Annexure R-8**.

j. The Appellant Corporation on 02.03.2019 floated a Tender for selection of Contractors for Scientific Dumpsite Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati under the Appellant Corporation. On perusing the contents of the Tender floated by the Appellant Corporation, the Tender was floated for reclamation of the Legacy Waste through Bio-mining for a dump admeasuring 1,31,946.20 m^3. The copy of the Tender dated 02.03.2019 floated by the Appellant Corporation is enclosed herewith as **Annexure R-9**.

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k. The Appellant Corporation on 05.09.2019 entered into an Agreement with M/s Sadguru Bagadebaba Enterprises in JV with P. H. Jadhav, as a successful bidder, to execute the work of Scientific Dumpsite Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot. In terms of the said Agreement, the Bio-mining work was to be completed within a period of 6 months from the date of signing of the Agreement or the date of issue of the Consent to Establish to the project, whichever was later. The Agreement also specifically spelled out the scope of work to be executed by the contractor. The copy of the Agreement dated 05.09.2019 between the Appellant Corporation and M/s Sadguru Bagadebaba Enterprises is enclosed herewith as **Annexure R-10**.

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l. Thereafter, on 20.09.2019, the work order for the Scientific Dumpsite Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, was accorded to M/s Sadguru Bagadebaba Enterprises being the successful bidder. In terms of the work order dated 20.09.2019, the contractor was to commence work immediately subject to conditions mentioned in the work order. The copy of the work order dated 20.09.2019 issued by the Appellant Corporation to M/s Sadguru Bagadebaba Enterprises is enclosed herewith as **Annexure R-11**.

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m. In terms of the Agreement dated 05.09.2019, the contractor was to carry out Total Station Survey of complete project site including the area earmarked in which Bio-mining was to be done. Accordingly, the contractor has conducted a Total Station Survey of the complete project in October, 2019 and has filed a Report dated 27.11.2019. On perusing the Report dated 27.11.2019, it is apparent that, an area of 7.64 Ha. is covered under the Legacy

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Waste and a total quantity of 3,99,867.73 m^3 of Legacy Waste was accumulated at the Sukali Dumping Ground. However, on perusing the contents of the Tender document dated 02.03.2019, the work order accorded M/s Sadguru Bagadebaba Enterprises was for a Legacy Waste dump admeasuring 1,31,946.20 m^3. Vide the letter dated 27.11.2019, M/s Sadguru Bagadebaba Enterprises called upon the Appellant Corporation to earmark an area of 3.08 Ha covering Legacy Waste of 1,31,946.20 m^3 from the 9.35 Ha of the Sukali Dumping Ground. The copy of the Report dated 27.11.2019 of the Total Station Survey of M/s Sadguru Bagadebaba Enterprises is enclosed herewith as **Annexure R-12**.

n. Thereafter on 28.11.2019, M/s Mars Planning and Engineering Services Pvt. Ltd. submitted a Report earmarking 3.08 Ha holding 1,31,946.20 m^3 of Legacy Waste. The Report dated 28.11.2019 categorically identified the area from chainage 590 mtrs to chainage of 800 mtrs admeasured 3.08 Ha and was the earmark site for the work of Scientific Dumpsite Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot holding Legacy Waste of 1,31,946.20 m^3. The copy of the Report dated 28.11.2019 of M/s Mars Planning and Engineering Services Pvt. Ltd. is enclosed herewith as **Annexure R-13**.

o. In terms of the Tender dated 02.03.2019, the Agreement dated 05.09.2019 and more so the work order dated 20.09.2019, M/s Sadguru Bagadebaba Enterprises JV with P. H. Jadhav was under an obligation to finish the reclamation of the Legacy Waste of 1,31,946.20 m^3 on or before March, 2020. However, since the Contractor did not complete the work as per the work order the Appellant Corporation has imposed a penalty of Rs. 5,00,000/- on the Contractor for the delay in execution of the work.

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p. The Contractor viz. M/s Sadguru Bagadebaba Enterprises however, had commenced with the work of reclamation of the Legacy Waste through Bio-mining immediately after the issuance of the work order. The work of Formation of Heaps and Spreading of Bio-culture was completed on 30.10.2019. The copy of the photographs showing the work of Formation of Heaps and Spreading of Bio-culture is enclosed herewith as **Annexure R-14**. The deployment of screening machine with 200 TPD Capacity started from 10.11.2019 and was required to be stopped from 20.03.2020 to 09.05.2020 due to the outbreak of the COVID-19 Pandemic. The screening machine was operative till 12.06.2020 and had to be stopped till 31.10.2020 due to the rainy season in District Amravati. The screening machine has restarted from 01.11.2020 and is in operation as of today.

q. As per the Tender document dated 02.03.2019, out of the total area of 6.35 Ha only an area of 3.08 Ha of Legacy Waste Dump was to be reclaimed availing the services of M/s Sadguru Bagadebaba Enterprises. Out of the 3.08 Ha of Legacy Waste Dump to be reclaimed as per the Tender Document dated 02.03.2019, approximately an area of 1.31 Ha has been reclaimed and a quantity of 63,860.65 m^3 of Legacy Waste has been cleaned up to June, 2020.

r. Thereafter, due to the onslaught of the rainy season, in Maharashtra, the reclamation of Legacy Waste through Bio-mining as per the Tender Document dated 02.03.2019, commenced from 31.10.2020 and was scheduled to be completed on 31.12.2020. However, on 12.10.2020, M/s Mars Planning and Engineering Services Pvt. Ltd. conducted a Total Station Survey Report for the Legacy Waste at the Sukali Dumping Ground, wherein, it was observed that the Total area under Legacy Waste as on

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12.10.2020 was 7.99 Ha with total quantity of Legacy Waste of 4,37,070.31 m^3 as on the date of survey i.e. 03-04 October, 2020. The Survey Report of 12.10.2020 has annexed a map which shows that in Part C, 1.3 Ha of land has been reclaimed and 63,860.65 m^3 of Legacy Waste has been cleaned through the Bio-remediation and Bio-mining. This area of 1.3 Ha which has been reclaimed and a quantity of 63,860.65 m^3 of Legacy Waste cleaned forms a part of the Tender Document dated 02.03.2019 seeking Bio-remediation of the Legacy Waste Dumpsite admeasuring 1,31,946.20 m^3. The copy of the Total Station Survey Report dated 12.10.2020 by M/s Mars Planning and Engineering Services Pvt. Ltd. is enclosed herewith as **Annexure R-15**.

s. In order to verify the execution of the work, undertaken by the Contractor in terms of the work order dated 20.09.2019, M/s Mars Planning and Engineering Services Pvt. Ltd. carried a further survey of the Total Station Survey of the Legacy Waste at Sukali Dumping Ground on 03-04 December, 2020. In terms of the previous Survey Report dated 12.10.2020, as per the Tender Document dated 02.03.2019, out of 1,31,946.20 m^3 of Legacy Waste, the Contractor as on June, 2020 had cleared 63,860.65 m^3 of Legacy Waste. Out of the balance quantity of 72,020.92 m^3, the report of M/s Mars Planning and Engineering Services Pvt. Ltd. dated 15.12.2020 shows that a quantity of 33,934.45 m^3 of Legacy Waste still needs to be cleared in terms of the Tender Document dated 02.03.2019. Thus, as on 15.12.2020, a total quantity of 1,01,325.8 m^3 of Legacy Waste has been cleaned out of 1,31,946.20 m^3 and an area of 2.73 Ha out of the 3.08 Ha of the earmarked area as per the Tender Document dated 02.03.2019 has been reclaimed. The copy of the Report dated

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15.12.2020 of M/s Mars Planning and Engineering Services Pvt. Ltd. is enclosed herewith as **Annexure R-16**.

t. The recent Total Station Survey Report of 02.01.2021 on the basis of a Survey conducted on 23.12.2020 has observed that a quantity of Legacy Waste of 1,44,467 m^3 has been cleared in an area of 3.28 Ha. Therefore, the work in terms of the Tender Document dated 02.03.2019 has been completely executed by the Appellant Corporation. The Copy of the recent Total Station Survey Report dated 02.01.2021 is enclosed herewith as **Annexure R- 17**.

u. The Appellant Municipal Corporation in terms of the Survey conducted in October, 2020, realized that a total quantity of Legacy Waste of 4,37,070.31 m^3 was existing in an area of 7.99 Ha. Since, 63,860.65 m^3 of Legacy Waste was remediated and a quantity of 72,020.92 m^3 of Legacy Waste was to be remediated in pursuance of the Tender Document dated 02.03.2019, a quantity of 3,65,050 m^3 of Legacy Waste was to be remediated in an area of 5.3 Ha which was beyond the scope of the Tender Document dated 02.03.2019. Therefore, the Appellant Corporation in October, 2020 has prepared a revised Detailed Project Report, taking into consideration the additional quantity of 3,65,050 m^3 of Legacy Waste which was not a part of the Detailed Project Report dated 12.12.2017. The project cost for Bio-remediation of 3,65,050 m^3 at the rate of Rs. 420/m^3 was calculated at Rs. 15,33,21,000/-. Cost for Bio-mining was as per the rate approved by the Maharashtra Jeevan Pradhikaran, Amravati in its Technical Sanction dated 20.11.2018. The copy of the Revised Detailed Project Report, October, 2020 by the Appellant Corporation is enclosed herewith as **Annexure R-18**.

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v. The Appellant Corporation by a letter dated 24.12.2020 submitted the Revised Detailed Project Report to the Principal Secretary, Nagar Vikas Department, Government of Maharashtra for its technical approval for the grant of funds to undertake remediation of the balance Legacy Waste of 3,65,050 m^3 through Bio-mining and Bio-remediation which was not forming a part of the remediation of Legacy Waste executed under the Tender Document dated 02.03.2019. The copy of the letter dated 24.12.2020 submitted by the Appellant Corporation to the Principal Secretary, Nagar Vikas Department, Government of Maharashtra is enclosed herewith as **Annexure R-19**.

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w. The Appellant Corporation without prejudice to its contention that as per the revised DPR an amount of Rs. 15,33,21,000/- was required for the purpose of remediating 3,65,050 m^3 of Legacy Waste existing at the Sukali Dumping Ground, the Appellant Corporation have sought the approval of the Urban Development Department, Government of Maharashtra for funding the Revised DPR, the Appellant Corporation is also as per the Solid Waste Management Rules, 2016 under a Statutory Obligation to undertake on their own or through any other agency Construction, Operation and maintenance of the Dump Site and associated infrastructure for the disposal of the Legacy Waste at the Dump Site in a manner prescribed under the rules. Therefore, the Appellant Corporation is also on its own accord without waiting for the approval of the funds from the Maharashtra State Government as stipulated in the revised DPR, making adequate provisions of funds and capital investments for the remediation of 3,65,050 m^3 of Legacy Waste existing at the Sukali Dumping Ground by utilizing the funds granted to the Appellant Corporation under the 15th Finance Commission. The 15th Finance Commission for the

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Financial Year of 2020-21 has allotted an amount of Rs. 90,000 Crores to the Local Bodies out of which Rs. 29,250 Crores (32.50%) shall be allotted for urban Local Bodies and the Urban Local Bodies within the State of Maharashtra have been granted Rs. 2,806 Crores. The Urban Development Department of the Maharashtra State Government by its Notification dated 28.10.2020, out of the Rs. 2,806 Crores has allotted Rs. 1,220 Crores to the Non-Million Plus Local Bodies whereas, Rs. 1,586 Crores has been allotted to the Million Plus Cities. Out of Rs. 1,220 Crores allotted to the Non-Million Plus cities, 25% of the tied grant ought to be utilize towards the Solid Waste Management. The Copy of the Notification dated 28.10.2020 of the Urban Development Department of State of Maharashtra is enclosed herewith as **Annexure R-20**.

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x. The Urban Development Department, Government of Maharashtra by a Notification dated 26.05.2020, in terms of the 15th Finance Commission for the Financial year 2020-21, accorded an amount of Rs. 9,67,47,908/- to the Appellant Corporation. The Copy of the Notification of Urban Development Department, Government of Maharashtra dated 26.05.2020 is enclosed herewith as **Annexure R- 21**.

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y. The Urban Development Department, Government of Maharashtra by a Notification dated 10.11.2020, in terms of the 15th Finance Commission for the Financial year 2020-21, accorded an additional amount of Rs. 9,79,07,400/- to the Appellant Corporation. Thus, in terms of the 15th Finance Commission, the Appellant Corporation has received a total amount of Rs. 19,46,55,308/-. As per the Notification dated 28.10.2020 out of Rs. 19,46,55,308/-, 25% was to be utilized towards Solid Waste Management/ Sanitation, 25% towards Drinking Water and 50% towards basic grants by the

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Appellant Corporation. Thus, mandatorily an amount of Rs. 4,86,63,827/- was to be earmarked towards Solid Waste Management/Sanitation, Rs. 4,86,63,827/- towards drinking water and remaining Rs. 9,73,27,654/- could be used towards basic grant. The Copy of the Notification of Urban Development Department, Government of Maharashtra dated 10.11.2020 is enclosed herewith as **Annexure R- 22.**

z. The Appellant Corporation states that the amount of Rs. 15,33,21,000/- calculated in the revised DPR by the Appellant Corporation for the remediation of a quantity of 3,65,050 m^3, in the absence of the funds being granted by the Government of Maharashtra, the Appellant Corporation shall allocate an amount of Rs. 4,86,63,827/- earmarked towards Solid Waste Management/Sanitation and Rs. 9,73,27,654/- of the basic grant as per the Notification of the Government of Maharashtra dated 28.10.2020 in pursuance of the grants allotted by the 15th Finance Commission for the Financial Year 2020-21. Thus, a total amount of Rs. 14,59,91,481/- shall be raised by the Appellant Corporation out of the Funds allotted to the Appellant Corporation as per the 15th Finance Commission for the Financial Year 2020-21. On perusing the contents of the Notification dated 28.10.2020, the grant of the administrative approval for the utilization of the funds granted under the 15th Finance Commission for Non-Million Plus cities shall be the prerogative of the respective Municipal Commissioner and it shall be the Commissioner who shall have the absolute power in utilizing the funds of the Municipal Corporation. The Appellant Corporation, therefore, in a case where the Maharashtra State Government fails to grant the technical approval to the Revised DPR of the Appellant Corporation, the Appellant Corporation shall utilize an amount of Rs. 14,59,91,481/-

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from the funds allotted to the corporation under the 15th Finance Commission. The balance amount of Rs. 73,29,519/- shall be raised from the Municipal Fund of the Appellant Corporation. The City Engineer of the Appellant Corporation vide its letter dated 01.01.2021 has informed the consent of the Municipal Commissioner to utilize the required funds from the 15th Finance Commission and Municipal Funds for Bio-Remediation and Bio-Mining of Legacy Waste as per the revised DPR. The copy of the letter dated 01.01.2021 issued by the City Engineer of the Appellant Corporation is enclosed herewith as **Annexure R-23**.

aa. The Appellant Corporation shall be framing the terms and conditions of the Tender document as well as the Bid Document which shall be published online on the "Maha e-tender" website for the Bio-remediation of the Legacy Waste as per the revised DPR. Thereafter, the Tender Scrutiny Committee of the Appellant Corporation accords its administrative approval to the Bid Document after which the Tender for Bio-remediation of the Legacy Waste as per the Revised DPR will be floated. The Appellant Corporation undertakes to obtain the approval of the Tender Scrutiny Committee and accordingly float the Tender for the Bio-remediation of the Legacy Waste as per the revised DPR on or before 20.01.2021. the Government of Maharashtra by a Notification dated 27.09.2018, has laid down a procedure for allotting the Tenders to the contractors. As per the Notification dated 27.09.2018, a period of 25 days from the date of publication of the Tender needs to lapse for the first opportunity to open the Tender. Thereafter, a period of 15 days needs to lapse for the second opportunity to open the Tender and thereafter, 10 days needs to lapse for the third opportunity to open the Tender. Thus, in all a maximum period of 60 days i.e. on or before 22.03.2021

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would be required by the Appellant Corporation for awarding the Tender of Bio-remediation of the Legacy Waste as per the revised DPR at the Sukali Dumping Ground. Once the Tender is awarded, the Tender documents are once again sent to the Tender Scrutiny Committee who shall accord its technical approval, after which, the administrative approval as well as the rate approval (lowest rate bid) of the Municipal Commissioner is sought. Once the administrative approval as well as the rate approval (lowest rate bid) of the Municipal Commissioner is obtained, the Tender Documents are submitted to the Standing Committee for executing the agreement and work order to the successful bidder. The Appellant Corporation undertakes to grant the technical approval of the Tender Scrutiny Committee, the administrative approval as well as the rate approval of the Municipal Commissioner and the execution of the agreement and work order with the successful bidder on or before 29.03.2021. Once the work order is executed, with the successful bidder, the remediation of the Legacy Waste of a quantity of 3,65,050 m^3 shall be completed within one year (including the monsoon season) from the date of the grant of the work order i.e. on or before 29.03.2022.

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iv. **Erection of Municipal Solid Waste (MSW) Management Plant**:

A total of 250 TPD of Municipal Solid Waste is generated within the jurisdiction of the Appellant Corporation daily. Currently, the entire 250 TPD of MSW being generated within the jurisdiction of the Appellant Corporation is being dumped at the Sukali Dumping Ground and is being remediated as a part of the process of remediation of Legacy Waste through Bio-Remediation and Bio-Mining at the Sukali Dumping Ground. The Appellant Corporation has currently

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undertaken construction of the MSW Management Plants at the Sukali Compost Depot having a capacity of 200 TPD, Akoli Ring Road Site having a capacity of 100 TPD and Kondeshwar Naka Site having a capacity of 50 TPD in order to process, treat and dispose the 250 TPD of Municipal Solid Waste being daily generated within the area of the Appellant Corporation.

The Appellant Corporation on 20.09.2019 has entered into an agreement with M/s Ganga Trading Company in JV with P.H. Jadhav for the work of, "Design, Supply, Installation, Erection and Commission of Municipal Solid Waste processing plant along with associated Civil Work at various locations in Amravati (with operation and maintenance for three years)." The Appellant Corporation has entered into a single agreement for setting up of the MSW Processing Plants at three sites within the Appellant Corporation viz. Zone I-Sukali Compost Depot site having a capacity of 200 TPD, Zone II-Akoli Bypass Site having a capacity of 100 TPD and Zone III-Kondeshwar Naka, Badnera Site having a capacity of 50 TPD. The copy of the agreement dated 20.09.2019 between Appellant Corporation and M/s Ganga Trading Company in JV with P.H. Jadhav is enclosed herewith as **Annexure R-24.**

The Appellant Corporation on 20.09.2019 has also issued a work order to M/s Ganga Trading Company in JV with P.H. Jadhav for the work of, "Design, Supply, Installation, Erection and Commission of Municipal Solid Waste processing plant along with associated Civil Work at various locations in Amravati (with operation and maintenance for three years)." According to the work order, the construction work, in terms of the agreement dated 20.09.2019 was to be completed within six months from the date of signing of contract agreement excluding the rainy season and the duration for operation and maintenance of machinery was for three years from

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completion of the construction work as mentioned in the agreement. The Copy of the work order dated 20.09.2019 issued by the Appellant Corporation to the M/s Ganga Trading Company in JV with P.H. Jadhav is enclosed herewith as **Annexure R-25.**

- Sukali Dumping Ground MSW Processing Plant having a capacity of 200 TPD:

a. The Appellant Corporation had issued a work order dated 20.09.2019 to M/s Ganga Trading Company in JV with P.H. Jadhav for the work of, "Design, Supply, Installation, Erection and Commission of Municipal Solid Waste processing plant along with associated Civil Work at various locations in Amravati (with operation and maintenance for three years)." In terms of the work order dated 20.09.2019, the contractor of the Appellant Corporation ought to have completed the construction work within six months from the date of signing of the contract, excluding the rainy season. However, the Authorization under the Solid waste Management Rules, 2016 to the Municipal Solid Waste Processing Plant of the Appellant Corporation at Survey No. 155 and 156, Pet (Sukali), Amravati was accorded by the Maharashtra Pollution Control Board only on 01.01.2020 and therefore the construction work at the MSW Plant at Sukali could commence only after obtaining the authorization in accordance with law. The Copy of the Authorization under the Solid Waste Management Rules, 2016 dated 01.01.2020 is enclosed herewith as **Annexure R-26**.

b. In terms of the Authorization dated 01.01.2020, the construction at Survey No. 155 and 156, Peth (Sukali), Amravati of the MSW Plant along with its allied Civil Works commenced immediately in terms of the work order dated 20.09.2019 of the Appellant Corporation. However, as a consequence of the COVID-19

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Pandemic, a complete lockdown was imposed by the Union of India from 24.03.2020, to fight the COVID-19 Pandemic. As a result of the said lockdown the construction work at the Sukali MSW Processing Plant site came to a stand-still as on 24.03.2020 and was only resumed in October, 2020 as in the interregnum period from June 2020 to September 2020, the State of Maharashtra witnessed its seasonal rainfall. The Contractor has commenced the construction at of the MSW Processing Plant at Sukali along with its allied civil work and is currently building the Foundation of the Material Recovery Facility (MRF) Shade. In order to commence the processing of the MSW at the Sukali MSW Processing Plant, the Appellant Corporation immediately needs to set up the MRF shade and the Windrow Platform. Once the MRF Shade and the Windrow Platform are constructed, the Appellant Corporation shall be in position to commence the processing of the 200 TPD out of the 250 TPD of MSW being generated on daily basis within the Appellant Corporation. The Building Foundation of the MRF Shade of the MSW Processing Plant at Sukali shall be completed by 20.01.2021 and thereafter the Civil Work for the tipping area, MRF Shade, Windrow Platform and Leachate Collection Chamber shall immediately commence and be completed by 15.03.2021. Once the Civil Work of the MRF Shade and Windrow Platform is completed by 15.03.2021, the erection of Plant and Machinery in the MRF Shade and the Windrow Platform shall commence immediately. The MRF shade comprises of three sections viz. Pre-Sorting Section, Preparatory Section and Finishing Section. The Pre-Sorting Section has a Feed Conveyer (14 mtr length x 1 mtr width), Tromell 100 mm (7.25 mtr x Dia. 2.25 mtr), Accept Conveyer < 100 mm (13 mtr x 1 mtr), Reject Conveyer > 100 mm (8 mtr x 1 mtr) and Electrical Control Panel with cabling.

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The Preparatory Section comprises of Feeding Conveyer (13 mtr x 1 mtr), Tromell 35 mm (7 mtr x Dia 2 mtr), Accepts Conveyer <35mm (18 mtr x 0.8 mtr), Rejects Conveyer>35 mm (8 mtr x 0.8 mtr), Tromell 16 mm (7 mtr x Dia 2 mtr), Accepts Conveyer <16mm (17 mtr x 0.8 mtr), Rejects Conveyer>16 mm (8 mtr x 0.8 mtr), Electrical Control Panel (Provided separately for this section). The Finishing Sections comprises of Feeding Conveyer (13 mtr x 0.8 mtr), Tromell 4 mm (6 mtr x Dia 1.8 mtr), Accepts Conveyer <4 mm (18 mtr x 0.6 mtr), Rejects Conveyer>4 mm (6 mtr x 0.6 mtr), Electrical Control Panel (Provided separately for this section). The Organic Waste generated during processing the MSW is further shredded and thereafter is stored at the Windrow Platform. The Organic Waste at the Windrow Platform is processed with Bio-Culture and is stored for 21 days at the Windrow Platform for aerobic digestion, after which the Organic Waste starts converting into Organic Manure. The Appellant Corporation undertakes that the erection of plant and machinery within the MRF Shade and the Windrow Platform shall be completed by 15.07.2021 and by 01.09.2021 the MSW Processing Plant at Sukali shall be operative. The photographs of the Civil Work Undertaken at the MRF Shade of the MSW Plant at Sukali are enclosed herewith as **Annexure R-27**. The Copy of the list of Machineries to be erected at the MRF shade at Sukali Dumping Ground is enclosed herewith as **Annexure R-28.**

c. Thus, the Appellant Municipal Corporation undertakes to make the MSW Plant located at Survey No. 155 and 156, Peth (Sukali), Amravati having a capacity of processing 200 TPD of MSW operational on or before 01.09.2021.

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- Akoli Ring Road Site MSW processing plant having a capacity of 100 TPD:

a. The Appellant Corporation had issued a work order dated 20.09.2019 to M/s Ganga Trading Company in JV with P.H. Jadhav for the work of, "Design, Supply, Installation, Erection and Commission of Municipal Solid Waste processing plant along with associated Civil Work at various locations in Amravati (with operation and maintenance for three years)." In terms of the work order dated 20.09.2019, the contractor of the Appellant Corporation ought to have completed the construction work within six months from the date of signing of the contract, excluding the rainy season. However, the Authorization under the Solid waste Management Rules, 2016 to the Municipal Solid Waste Processing Plant of the Appellant Corporation at Plot No. 01 and 03 under sheet No. 26B, Mauja Akoli Ring Road, Badnera, Amravati was accorded by the Maharashtra Pollution Control Board only on 11.03.2020 and therefore the construction work at the MSW Plant at Sukali could commence only after obtaining the authorization in accordance with law. The Copy of the Authorization to Akoli Ring Road MSW Processing Plant under the Solid Waste Management Rules, 2016 dated 11.03.2020 is enclosed herewith as **Annexure R-29**.

b. In terms of the Authorization dated 11.03.2020, the construction at Plot No. 01 and 03 under sheet No. 26B, Mauja Akoli Ring Road, Badnera, Amravati of the MSW Plant along with its allied Civil Works had just commenced and the Appellant Corporation begun clearing the site for undertaking further civil works, immediately in terms of the work order dated 20.09.2019 of the Appellant Corporation. However, as a consequence of the COVID-19 Pandemic, a complete lockdown was imposed by the Union of

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India from 24.03.2020, to fight the COVID-19 Pandemic. As a result of the said lockdown the construction work at the Akoli Ring Road site MSW Processing Plant site came to a stand-still as on 24.03.2020 and was only resumed only in last week September, 2020 as in the interregnum period from June 2020 to September 2020, the State of Maharashtra witnessed its seasonal rainfall. The Contractor has commenced the construction at of the MSW Processing Plant at Akoli Ring Road along with its allied civil work and has completed the construction of the Windrow Platform, Segregation Platform, Leachate Collection Chamber, MRF Shade and tipping area. The Civil Work on site through Bio-Mining work through Weighbridge, Security Room, Office Block and Ancillary Infrastructure shall be completed by 15.02.2021 and the entire civil work of the Akoli Ring Road MSW Processing Plant shall be completed by 28.02.2021. The MSW Plant Machinery of the Akoli Ring Road Site has been received by the Appellant Corporation on 06.11.2020 and the erection and installation of the same shall be completed by 15.01.2021.

c. Thus, the Appellant Municipal Corporation undertakes to make the MSW Plant located at Plot No. 01 and 03 under sheet No. 26B, Mauja Akoli Ring Road, Badnera, Amravati having a capacity of processing 100 TPD of MSW operational on or before 31.01.2021. The copy of the photographs showing the current status of the work at Akoli Ring Road MSW Processing site is enclosed herewith as **Annexure R-30**.

- Kondeshwar Naka, Badnera MSW Processing Plant having capacity of 50 TPD:

a. At the outset, it is submitted that a total quantity of 250 TPD of MSW is generated within the jurisdiction of the Appellant

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Corporation daily. The MSW Plant at Sukali has a capacity of processing 200 TPD of MSW and the MSW plant at Akoli Ring Road Site has a capacity of Processing 100 TPD of MSW. Therefore, once the MSW plant at Sukali and Akoli become operative, 250 TPD of MSW daily generated within the Appellant Corporation shall be processed at the MSW Plant at Sukali and Akoli. There shall be no MSW which shall remain unprocessed within the Appellant Corporation once the MSW plant at Sukali and Akoli Ring Road Commence operation.

b. In order to meet the requirements of the growing population within the Appellant Corporation, the Appellant Corporation has principally agreed to set up a MSW Processing Plant having a capacity of 50 TPD at Kondeshwar Naka, Badnera. Accordingly, the Appellant Corporation has obtained the Authorization under the Solid Waste Management Rules, 2016 for setting up a MSW Plant at Survey No. 110, Kondeshwar Naka, Badnera, Amravati having a capacity of 50 TPD from the Maharashtra Pollution Control Board on 11.03.2020. The copy of the Authorization for Kondeshwar Naka, Badnera MSW Plant issued by the Maharashtra Pollution Control Board dated 11.03.2020 is enclosed herewith as **Annexure R-31**.

c. Survey No. 110, Kondeshwar Naka, Badnera, Amravati, the site identified by the Appellant Corporation for setting up MSW Plant had 54 trees on the site. The said trees had to be removed and the Appellant Corporation had to obtain the permission from the competent authorities in accordance with law, which was accorded on 17.02.2020. However, since the MSW generated within the Appellant Corporation is processed at Sukali as well the Akoli Ring Road processing plant, no MSW is being generated which shall be unprocessed and therefore the Appellant

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Corporation shall further commence with the Construction of the MSW Processing Plant at Kondeshwar Naka as and when need be.

II. Compliance of Direction 3(iii) of the Order dated 22.09.2020:

a. The Appellant has been substantially taking steps for collections and scientific disposal of Bio-medical Waste and Bio-Hazardous waste generated within the municipal limits of the Appellant Corporation. A total number of 212 hospitals are effectively operating in the area under the Appellant Corporation and in order to scientifically dispose the Bio-medical and Bio-hazardous waste generated within the limits of the Appellant Corporation, the Appellant Corporation on 24.01.2003 has entered into an agreement with one M/s Global Ecosave System. A copy of the agreement between M/s Global Ecosave System and Appellant Corporation of Amravati dated 24.01.2003 is enclosed herewith as **Annexure R-32.**

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b. The Central Pollution Control Board on 21.12.2016 has issued guidelines for Common Bio-Medical Waste Treatment and Disposal Facility, in accordance with Bio-Medical Waste Management Rules, 2016. The Appellant Corporation has been disposing of its Bio-medical Waste in accordance with the CPCB Guidelines dated 21.12.2016. The Appellant Corporation has common Bio-medical Waste and Management Facility situated at Durgapur Road, Badnera, Dist. Amravati. The Bio-Medical Waste and Management facility situated at Durgapur Road, Badnera, Dist. Amravati caters to the Bio-Medical waste generated in the entire Amravati Region. The Amravati Region consist of the entire District of Akola and Amravati and part of Washim, Yavatmal and Buldhana(Council). The Bio-Medical Waste generated within the area of the Appellant Corporation forms a part of the Bio-Medical Waste sent to the

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Common Bio-Medical waste and Management facility situated at Durgapur Road, Badnera, Dist. Amravati. The Maharashtra Pollution Control Board on 07.06.2003 has accorded its authorization for operating a facility for processing the Bio-Medical Waste to M/s Global Ecosave System, Amravati who is the operator of the Appellant Corporation in terms of the agreement dated 24.01.2003 for the entire Amravati Region. The copy of the Authorization Letter dated 07.06.2003 is enclosed herewith as **Annexure R-33**.

c. Thereafter, the Bio-medical Waste Management Facility of the Appellant Corporation became operative on 30.06.2003 and has been operating in accordance with law. Recently, the operator of the Bio-Medical Waste Management Facility of the Appellant Corporation on 30.12.2019 made an Application to the Maharashtra Pollution Control Board for the renewal of its consent to operate accorded to the Bio-Medical Waste Facility of the Appellant Corporation. The Maharashtra Pollution Control Board vide its order dated 04.09.2020, has accorded the consent to operate to the Bio-Medical Waste Facility of the Appellant Corporation up to 31.12.2023. The Appellant Corporation is undertaking the disposal of the Bio-Medical Waste generated within its jurisdiction as per the consent to operate dated 04.09.2020, granted by the Maharashtra Pollution Control Board, in accordance with law. The copy of the consent to operate dated 04.09.2020 to the Bio-Medical Waste Facility is enclosed herewith as **Annexure R-34**.

d. On perusing the Consent to Operate dated 04.09.2020, granted to the operator of the Appellant Corporation up to 31.12.2023 by the Maharashtra Pollution Control Board, the permissible operational capacity of the incinerator at the Bio-Medical Waste and

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Management facility of the Appellant Corporation is 5,400 Kg/day and the Autoclave has an operational capacity of 18 cycles/day (Each Cycle 90 min). The Appellant Corporation through its operator has recorded the Bio-Medical Waste generated for the month of October 2020. On perusing the data, it is apparent that a total of 14,211.02 Kg of Bio-Medical Waste was generated for the month of October 2020. The copy of the data of the Bio-medical waste generated for the month of October 2020 within the Appellant Corporation, is enclosed herewith as **Annexure R-35**. Simultaneously, the Appellant Corporation has also recorded the COVID-19 waste data for the month of October 2020. A total of 8390 Kgs of COVID-19 waste was generated within the area of the Appellant Corporation. The copy of the COVID-19 data generated within the area of Appellant Corporation in the month of October is enclosed herewith as **Annexure R-36**.

e. The consent to operate dated 04.09.2020, permits the incineration treatment of the Bio-Medical Waste of 5,400 Kg/day. The Bio-Medical waste generated within the Appellant Corporation as can be seen from the recorded data of October 2020 (i.e. 14211.02 kg for Bio-Medical Waste and 8,390 Kg for COVID-19 waste) is much less than the capacity of the incineration technology adopted by the Appellant Corporation at the Common Bio-Medical Waste Facility of the Appellant Corporation situated at Durgapur Road, Badnera, Dist. Amravati. Thus, the disposal of the Bio-Medical Waste within the Appellant Corporation is accordance with the law.

f. The hospitals within the area of Appellant Corporation, in accordance with Bio-medical Waste Rules, 2016 are segregating the Bio-medical waste at source in different colored disposal bags, easy for identification. The Appellant Corporation, has appointed M/s Global Ecosave System as a contractor for Collection,

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Transportation, Treatment and Disposal of Bio-medical Waste. However, a few hospitals were not complying with the Guidelines issued for the disposal of Bio-medical waste within their area and the same having been traced by the Appellant Corporation on 23.10.2020. Two hospitals namely, Kavimandal Hospital and Dr. Khatri have been fined with a fine to the tune of Rs. 5000 each for illegally disposing the Bio-medical Waste. The copy of the receipts of the fines imposed on hospitals is enclosed herewith as **Annexure R-37**.

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III. Compliance of Direction 3(iv) of the Order dated 22.09.2020:

a. The Western Zone Bench of the Hon'ble National Green Tribunal by its Notice bearing No. O.W. No. NGT/WZ/PUNE/626/2020 dated 24.09.2020 in terms of the direction 3(iv) in the order dated 22.09.2020 in O.A. No. 60 of 2019 (WZ) has issued a Show Cause Notice to the Appellant Corporation for compliance. The Copy of the Show Cause Notice bearing No. O.W. No. NGT/WZ/PUNE/626/2020 dated 24.09.2020 issued by The Western Zone Bench of the Hon'ble National Green Tribunal is enclosed herewith as **Annexure R-38**.

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b. For reasons stated hereinabove, the Officers of the Appellant Corporation have been making every endeavor to resolve the issue of Legacy Waste, Municipal Solid Waste and the Bio-Medical Waste being generated within the area of Appellant Corporation. The work for clearing the Legacy Waste by process of Bio-remediation and Bio-mining has been undertaken by the Appellant Corporation diligently. However, due to the wide spread pandemic and the lockdown imposed by the Government of India the timelines for executing the said work have been revised. Also, three new Municipal Solid Waste Plants/Projects having a total capacity of 350 TPD shall be commissioned in accordance to the timelines mentioned before the

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Hon'ble Tribunal which shall tackle the Municipal Solid Waste being generated within the area of Appellant Corporation completely in accordance with law. The Common Bio-medical Waste Treatment and Disposal Facility of the Appellant Corporation is sufficient to tackle the Bio-medical waste currently being generated within the area of Appellant Corporation. In such circumstances, admittedly though there has been a delay in executing the compliance of the Legacy Waste as well the Municipal Solid Waste, the same being unintentional, no coercive action should be initiated against the officers of Appellant Corporation.

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IV. Compliance of Direction 3(v) of the Order dated 22.09.2020:

a. The Original Application No. 60 of 2019 (WZ) after 22.09.2020, was listed on 04.11.2020 before the Hon'ble National Green Tribunal. However, on 04.11.2020, the matter before the Hon'ble Tribunal was adjourned to 16.12.2020 by the registry of the Hon'ble Tribunal. On 16.12.2020, the Original Application No. 60 of 2019 (WZ) was once again adjourned to 15.02.2021.

b. The Municipal Commissioner of the Appellant Corporation was available to assist the Hon'ble Tribunal on 04.11.2020 as well as 16.12.2020 as per the directions of the Hon'ble Tribunal. The Municipal Commissioner further undertakes to make himself available on 15.02.2020 for assisting the Hon'ble Tribunal.

Whatever stated herein above is true and correct to the best of my knowledge and belief and nothing material has been concealed there from. Solemnly affirmed at Amravati on 5th day of January, 2021.

DEPONENT
LAW OFFICER
Municipal Corporation
Amravati

SWAPNIL S. JAJU
NOTARY ADVOCATE
Amravati (M.S.) India
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VERIFICATION

Verified at Amravati on this 5th day of January, 2021 that the contents of the present affidavit are true and correct and nothing material has been concealed therefrom.

DEPONENT
LAW OFFICER
Municipal Corporation
Amravati

NOTARY
S. S. JAJU
DIST. AMRAVATI
MAHARASHTRA
REGD.No.15679
Expiry Dt. on
27-11-2024
OF INDIA

NOTARY

I do swear in the name of God solemnly affirm
That, This is my name and signature (or mark) and that the Contents of this my affidavit are true and correct.

Signature of deponent After Attestation

Signature of Notary

N.R.S. No. T/22/2021
05.01.2021
THIS DOCUMENT
CONTAINS PAGES

SWAPNIL S. JAJU
NOTARY ADVOCATE
Amravati (M.S.) India
Reg.No. 15679

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ANNEXURE A-3

Maharashtra Urban Development Mission Directorate

Swacch Maharashtra mission (Urban)

Mittal tower, A wing third flour, nariman point Mumbai-400021.

Telephone NO.02266157390 Fax No. 02266157426 E-mail-Director .smau@gmail.com

LETTER NO.RAAS/GHAN KACHARA/17-18 DATE 07.06.2017

To,

1. Commissioner (All Municipal Corporation)
2. Chief officer (All Municipal Council / Panchayat)

Subject: - Preparation of Detail project report regarding solid waste management under Swacch Maharashtra mission (Urban)

As for the above subject solid waste management under Swacch Maharashtra mission (Urban) include 100% collection transportation and scientific processing of solid waste in local bodies. Accordingly solid waste management procedure is commenced in classified cites of state. Hence requested to observe MOUD guidelines.

2. State mission directorate appointed MaRS Planning & Engineering Services Pvt. Ltd for preparation Detail Project Report of solid waste management in all local bodies of Amravati region. For your reference the copy of declaration letter is annexed herewith and which local bodies intends prepare DPR out of which local bodies is ODF/QCI certified, they shall be taken into consideration. Forward signed consent letter to directorate in format annexed.

Municipal Corporation -signed by Commissioner

Municipal Council / Panchayat - signed by Chief Officer and president

Annexure :- Draft of consent letter

Contact: - jay padaliya 9879550337
(jaypadaliya@gmail.com,info@marsconsultancy.com)

Sd/-
Dr.UdayTekale
Director of State Mission (Urban)
Swacch Maharashtra mission (Urban)

Copy to:-Dy. Secretary (navi-34) Urban Development dept. Mantralay Mumbai-400032

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ANNEXURE A-4

Detailed Project Report (DPR) of Solid Waste Management

AMRAVATI

District- Amravati

Submitted To

Swachh Maharashtra Mission
Maharashtra Urban Development Mission
C/0 MUINFRA, Ground Floor, CR-2
Building, Barrister Rajni Patel Road,
Nariman Point,
Mumbai- 400 021
Telephone : 022- 66157390
E-mail : director.smau@gmail.com

Submitted By

MaRS Planning & Engineering Services Private Limited
601 Surmount, Opp. ISCON Mega Mall, S.G Highway,
Ahmedabad - 380 015
Gujarat, India.
Telephone : (+) 91-79-2686 0890
Telefax : (+) 91-79-2686 0130
E-mail : info@marsconsultancy.com

ABBREVIATIONS

ABC	Asphalt, Brick and Concrete
ABS	Area Based System
AD	Anaerobic Digestion
ADS	Air Density Separator / De-stoner
AFR	Alternative Fuels and Raw material
ASR	Auto Shredder Residue
BARC	Bhabha Atomic Research Centre
BFB	Bubbling Fluidized Bed
BIS	Bureau of Indian Standards
BOD	Biochemical Oxygen Demand
BOO	Build Own Operate
BOOT	Build Own Operate and Transfer
BOT	Build Operate Transfer
C&D	Construction & Demolition
CA	Concession Agreement
CAA	Constitutional Amendment Act
CBG	Compressed Biogas
CBOs	Community Based Organizations
CE	Combustion Efficiency
CO	Chief Officer
CFB	Circulating Fluidized Bed
CFL	Compact Fluorescent Lamps
CIPET	Central Institute of Plastics Engineering and Technology
CMWMF	Common Municipal Waste Management Facilities
CNG	Compressed Natural Gas
COD	Chemical Oxygen Demand
CPCB	Central Pollution Control Board
CPHEEO	Central Public Health and Environmental Engineering Organization
CPU	Carcass Processing Unit
CPWD	Central Public Works Department
CSP	City Sanitation Plan
CSTR	Continuously Stirred Tank Reactor
D2D	Door-to-door
DBFOT	Design, Build, Finance, Operate and Transfer
DBO	Design-Build-Operate
DBOOT	Design-Build-Own-Operate and Transfer
DC	Drain Cleaning
DEA	Department of Economic Affairs
DMA	Directorate of Municipal Administration
DPR	Detailed Project Report
DRANCO	Dry Anaerobic Composting
DRE	Destruction Removal Efficiency
DWCC	Dry Waste Collection Centres
EIA	Environment Impact Assessment
EM	Effective Micro Organisms
EMP	Environmental Management Plan
EoI	Expression of Interest
EPF	Employment Provident Fund
EPR	Extended Producer Responsibility
EPS	Expanded Polystyrene
ESP	Electrostatic Precipitator
ETP	Effluent Treatment Plant
FAQ	Frequently Asked Question
FRP	Fiber Reinforced Plastic

GCL	Geo Synthetic Clay Liner
GDP	Gross Domestic Product
GHG	Green House Gas
GIS	Geographic Information System
Gom	Government of Maharashtra
GoI	Government of India
GPRA	General Pool Residential Accommodation
GPRS	General Packet Radio Identification
GPS	Global Positioning System
GSB	Granular Sub Base
GSI	Geologic Survey of India
HAPs	Hazardous Air Pollutants
HDPE	High-Density Polyethylene
HH	Households
HUDCO	Housing and Urban Development Corporation
IC	Internal Combustion
ICT	Information and Communication Technology
IEC	Information, Education and Communication
IGCC	Integrated Gasification Combined Cycle
IMD	Indian Meteorological Department
IPNM	Integrated Plant Nutrient Management
IS	Indian Standards
ISWM	Integrated Solid Waste Management
ITB	Instruction to Bidders
JnNURM	Jawaharlal Nehru National Urban Renewal Mission
LCS	Leachate Collection System
LCV	Light Commercial Vehicle
LDO	Light Diesel Oil
LDPE	Low-density polyethylene
LED	Light Emitting Diode
LEL	Lower Explosive Limit
LoI	Letter of Intent
LPG	Liquid Petroleum Gas
M&E	Monitoring & Evaluation
MIS	Management Information System
MJP	Maharashtra Jeevan Pradhikaran
MMRDA	Maharashtra Metropolitan Regional Development Authority
MNRE	Ministry of New and Renewable Energy
MoA	Ministry of Agriculture
MoEFCC	Ministry of Environment and Forests & Climate Change
MoUD	Ministry of Urban Development
MRF	Material Recovery Facility
MSW (M&H)	Municipal Solid Waste (Management and Handling)
MSWMP	Municipal Solid Waste Management Plan
MUDM	Maharashtra Urban Development Mission Directorate
NABL	National Accreditation Board for Testing and Calibration Laboratories
NAC	Notified Area Committee
NAPCC	National Action Plan on Climate Change
NCV	Net Calorific Value
NEERI	National Environmental Engineering Research Institute
NGO	Non- Government Organization
NUSP	National Urban Sanitation Policy
O&M	Operation and Maintenance
OEM	Original Equipment Manufacturer
OHSAS	Occupational Health and Safety Assessment System
OMC	Optimum Oxygen Content

OWC	Organic Waste Converters
PBG	Performance Bank Guarantee
PIL	Public Interest Litigation
PIM	Project Information Memorandum
PNG	Piped Natural Gas
PPP	Public Private Partnership
PROM	Phosphate Rich Organic Manure
PS	Polystyrene
PSA	Pressure Swing Adsorption
PSP	Private Sector Participation
PTO	Power Take-Off
PUF	Polyurethane Foam
PVC	Polyvinyl Chloride
RA	Recycled Aggregates
RCA	Recycled Concrete Aggregates
RCC	Reinforced Cement Concrete
RDF	Refuse Derived Fuel
RFID	Radio Frequency Identification
RFP	Request for Proposal
RFQ	Request for Qualification
RMC	Ready Mix Concrete
RPM	Respirable Particulate Matter
RSPM	Respirable Suspended Particulate Matter
SBM	Swachh Bharat Mission
S.I.	Sanitary Inspector
SMM	Swachh Maharashtra Mission
SMM-U	Swachh Maharashtra Mission-Urban
S.O	Sanitary Officer
S.S.	Sanitary Supervisor
S.S.I	Sanitary Sub-Inspector
SC&T	Street Collection & Transportation
SCR	Selective Catalytic Reduction
SEAC	State Expert Appraisal Committee
SEIAA	State Environment Impact Assessment Authority
SHGs	Self Help Groups
SLB	Service Level Benchmark
SLF	Sanitary Landfill Facility
SNCR	Selective Non-catalytic Reduction
SOP	Standard Operating Procedure
SPCB	State Pollution Control Board
SS	Street Sweeping
SSD	Saturated Surface Dry
SWaCH	Solid Waste Collection & Handling
TOR	Terms of Reference
TPD	Tonnes per Day
TSDF	Treatment, Storage & Disposal Facility
UDD	Urban Development Department
UIDSSMT	Urban Infrastructure Development Scheme for Small & Medium Towns
ULB	Urban Local Body
UV	Ultra Violet
VAT	Value Added Tax
WPLF	Waste Processing & Landfill
WTE	Waste to Energy

CHEMICALS AND COMPOUNDS

As	Arsenic
C	Carbon
C_6H_5OH	Phenol / Carbolic Acid
Cd	Cadmium
CH_4	Methane
Cl	Chloride
CN	Cyanide
CO	Carbon monoxide
Co	Cobalt
CO_2	Carbon dioxide
Cr	Chromium
Cu	Copper
F	Fluoride
H_2S	Hydrogen sulphide
HCl	Hydrochloric acid
HF	Hydrogen fluoride
Hg	Mercury
K	Potassium
K_2O	Potassium Oxide
KF	Potassium fluoride
Li-ion	Lithium-ion
LSHS	Low Sulphur Heavy Stock
Mn	Manganese
MS	Multi station
N	Nitrogen
Ni	Nickel
NO	Nitrogen monoxide
NOx	Nitrogen oxides
P	Potassium
Pb	Lead
PCBs	Polychlorinated biphenyl
PCDD	Polychlorinated di-benzodioxins
PCDF	Polychlorinated di-benzofurans
PET	Polyethylene terephthalate
pH	Acidity or alkalinity of a solution
PM	Particulate Matter
POP	Persistent Organic Pollutants
PP	Polypropylene
Sb	Antimony
Sn	Tin
SO_2	Sulphur oxide
SO_4	Sulphate
Th	Thorium
TI	Thallium
TOC	Total organic carbon
TPH	Tonnes per Hour
V	Vanadium
VOC	Volatile Organic Compound
Zn	Zinc

METRIC CONVERSION TABLE

AREA				
ha	Hectares	1 hectare = 2.47 acres or 1,07,639 square feet (sq ft)		
sq.km	Square kilometre	1 sq. km = 0.386102 square mile (sq mi)		
LENGTH				
km	Kilometre	1 km = 1000 m		
m	Meter	1 m = 1000 cm		
cm	Centimetre	1 cm = 1000 mm		
mm	Millimetre	1 mm = 1000 µm		
µm	Micrometre			
VOLUME				
l	Litre	1 l = 0.001 m m^3		
m^3or cu.m	Cubic metre	1 m3or cu.m = 10,00,000 cm^3		
cm^3	Cubic centimetre	1 cm3= 1e+21 Nm^3		
Nm^3	Normal cubic metres			
TEQ / Nm^3	Dioxin toxic equivalent per			
	normal cubic metres			
KLD	Kilolitre per day			
MASS				
MT or T	Metric tonne or tonne	1 MT or T = 1000 kg		
kg	Kilogram	1 kg = 1000 g		
g	Gram	1 g = 10,00,000 µg		
µg	Microgram			
gsm	Grams per square metre			
ENERGY				
MW	Megawatt	1 MW = 1000 KW		
kW	Kilowatt	1 KW = 1000 W		
kcal	Kilocalories	1 kcal = 1000 cal		
TEMPERATURE				
°C	Celsius	1°C	=	33.800 Fahrenheit (°F)

GLOSSARY OF TERMS

(1) **“aerobic composting”** means a controlled process involving microbial decomposition of organic matter in the presence of oxygen;

2. **“anaerobic digestion"** means a controlled process involving microbial decomposition of organic matter inabsence of oxygen;

3. **"authorisation"** means the permission given by the State Pollution Control Board or Pollution Control Committee, as the case may be, to the operator of a facility or urban local authority, or any other agency responsible for processing and disposal of solid waste;

4. **“biodegradable waste "** means any organic material that can be degraded by micro-organisms into simpler stable compounds;

5. **"bio-methanation"** means a process which entails enzymatic decomposition of the organic matter by microbial action to produce methane rich biogas;

6. **“brand owner”** means a person or company who sells any commodity under a registered brand label.

7. “**buffer zone**” means zone of no development to be maintained around solid waste processing and disposal facility, exceeding 5 TPD of installed capacity. This will be maintained within total and area allotted for thesolid waste processing and disposal facility.

8. **“bulk waste generator”** means and includes buildings occupied by the Central government departments or under takings, State government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes having an average waste generation rate exceeding 100kg per day**;**

9. **"bye-laws"** means regulatory framework notified by local body, census town and notified area townships for facilitating the implementation of these rules effectively in their jurisdiction**.**

10. **“census town”** means an urban area as defined by the Registrar General and Census Commissioner of India;

11. **“combustible waste”** means non-biodegradable, non-recyclable, non-reusable, non-hazardous solid waste having minimum calorific value exceeding 1500 kcal/kg and excluding chlorinated materials like plastic, wood pulp, etc**;**

12. "**composting"** means a controlled process involving microbial decomposition of organic matter;

13. “**contractor**” means a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job for service providing authority;

14. **“co-processing”** means use of non-biodegradable and non-recyclable solid waste having calorific value exceeding 1500k/cal as raw material or as a source of energy or both to replace or supplement the natural mineral resources and fossil fuels in industrial processes;

15. **“decentralised processing”** means establishment of dispersed facilities for maximizing the processing of biodegradable waste and recovery of recyclables closest to the source of generation so as to minimize transportation of waste for processing or disposal;

16. "**disposal**" means the final and safe disposal of post processed residual solid waste and inert street sweeping sand silt from surface drains on land as specified in Schedule I to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;

17. **"domestic hazardous waste"** means discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, broken mercury thermometers, used batteries, used needles and syringes and contaminated gauge, etc., generated at the household level;

18. **"door to door collection" m**eans collection of solid waste from the door step of households, shops, commercial establishments , offices , institutional or any other non residential premises and includes collection of such waste from entry gate or a designated location on the ground floor in a housing society , multi storied building or apartments , large residential, commercial or institutional complex or premises;

19. **"dry waste"** means waste other than bio-degradable waste and inert street sweepings and includes recyclable and non recyclable waste, combustible waste and sanitary napkin and diapers, etc;

20. **"dump sites"** means a land utilised by local body for disposal of solid waste without following the principles of sanitary land filling;

21. **"extended producer responsibility" (EPR)** means responsibility of any producer of packaging products such as plastic, tin, glass and corrugated boxes, etc., for environmentally sound management, till end-of-life of the packaging products;

22. **"facility"** means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment or safe disposal are carried out;

23. **"fine" means** penalty imposed on waste generators or operators of waste processing and disposal facilities under the bye-laws for non-compliance of the directions contained in these rules and/or bye- laws

24. **"Form"** means a F8orm appended to these rules;

25. **"handling"** includes all activities relating to sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing and disposal of solid wastes;

26. **"inerts"** means wastes which are not bio-degradable, recyclable or combustible street sweeping or dust and silt removed from the surface drains;

27. **"incineration"** means an engineered process involving burning or combustion of solid waste to thermally degrade waste materials at high temperatures;

28. **"informal waste collector"** includes individuals, associations or waste traders who are involved in sorting, sale and purchase of recyclable materials;

29. "**leachate**" means the liquid that seeps through solid waste or other medium and has extracts of dissolved or suspended material from it;

30. **" local body"** for the purpose of these rules means and includes the municipal corporation, nagar nigam, municipal council, nagarpalika, nagar Palikaparishad, municipal board, nagar panchayat and town panchayat, census towns, notified areas and notified industrial townships with whatever name they are called in different States and union territories in India;

31. "**materials recovery facility" (MRF)** means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorised by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the local

body or entity mentioned in rule 2for the purpose before the waste is delivered or taken up for its processing or disposal;

32. **“non-biodegradable waste”** means any waste that cannot be degraded by micro organisms into simpler stable compounds;

33. **"operator of a facility"** means a person or entity, who owns or operates a facility for handling solid waste which includes the local body and any other entity or agency appointed by the local body;

34. **primary collection"** means collecting, lifting and removal of segregated solid waste from source of its generation including households, shops, offices and any other non-residential premises or from any collection points or any other location specified by the local body;

35. "**processing"** means any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products**;**

36. **"recycling**" means the process of transforming segregated non-biodegradable solid waste into new material or product or as raw material for producing new products which may or may not be similar to the original products;

37. **“redevelopment”** means rebuilding of old residential or commercial buildings at the same site, where the existing buildings and other infrastructures have become dilapidated;

38. **"refused derived fuel**"(RDF) means fuel derived from combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste ;

39. “**residual solid waste”** means and includes the waste and rejects from the solid waste processing facilities which are not suitable for recycling or further processing;

40. **"sanitary land filling "** means the final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion;

41. **“sanitary waste”** means wastes comprising of used diapers, sanitary towels or napkins, tampons, condoms, incontinence sheets and any other similar waste;

42. **"Schedule"** means the Schedule appended to these rules;

43. "**secondary storage**" means the temporary containment of solid waste after collection at secondary waste storage depots or MRFs or bins for onward transportation of the waste to the processing or disposal facility;

44. **"segregation"** means sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non biodegradable wastes including recyclable waste, nonrecyclable combustible waste, sanitary waste and non recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes;

45. **“service provider”** means an authority providing public utility services like water, sewerage, electricity, telephone, roads, drainage, etc;

46. **"solid waste"** means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities and other entities mentioned in rule 2;

47. **"sorting"** means separating various components and categories of recyclables such as paper, plastic, cardboards, metal, glass, etc., from mixed waste as may be appropriate to facilitate recycling;

48. **"stabilising"** means the biological decomposition of biodegradable wastes to a stable state where it generates no leachate or offensive odours and is fit for application to farm land ,soil erosion control and soil remediation;

49. **"street vendor"** means any person engaged in vending of articles, goods, wares, food items or merchandise of everyday use or offering services to the general public, in a street, lane, side walk, footpath, pavement, public park or any other public place or private area, from a temporary built up structure or by moving from place to place and includes hawker, peddler, squatter and all other synonymous terms which may be local or region specific; and the words "street vending" with their grammatical variations and cognate expressions, shall be construed accordingly;

50. **"tipping fee"** means a fee or support price determined by the local authorities or any state agency authorised by the State government to be paid to the concessionaire or operator of waste processing facility or for disposal of residual solid waste at the landfill;

51. **"transfer station"** means a facility created to receive solid waste from collection areas and transport in bulk in covered vehicles or containers to waste processing and, or, disposal facilities;

52. **"transportation"** means conveyance of solid waste, either treated, partly treated or untreated from a location to another location in an environmentally sound manner through specially designed and covered transport system so as to prevent the foul odour, littering and unsightly conditions;

53. **"treatment"** means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;

54. **"user fee"** means a fee imposed by the local body and any entity mentioned in rule 2 on the waste generator to cover full or part cost of providing solid waste collection, transportation, processing and disposal services.

55. "**vermi composting"** means the process of conversion of bio-degradable waste into compost using earth worms;

56. "**waste generator**" means and includes every person or group of persons, every residential premises and non residential establishments including Indian Railways, defense establishments, which generate solid waste;

57. **"waste hierarchy"** means the priority order in which the solid waste is to should be managed.

EXECUTIVE SUMMARY

Swachh Maharashtra Mission has appointed M/s MaRS Planning & Engineering Services Pvt. Ltd. Ahmadabad to perform consultancy services, for Preparation of Detailed Project Reports of solid waste Management of the 58 different towns of cluster Amravati. The report is being framed after detailed surveys and meetings with stake holders, of town. Various suggestions were gathered and after consent from Nagar Palika Amravati, proposals are drawn. The authority for preparing feasibility report for solid waste scheme of Amravati, Amravati had given by Swachh Bharat Mission Mumbai Maharashtra.

The present report has proposed an appropriate system of solid waste management for Amravati (Amravati District), looking into the various aspects of Collection, Transportation, Processing and Disposal. The key important existing statistics related to the ULB are highlighted as under.

- Amravati is **'Class D-Municipal Corporation category'** ULB having Population more than 3,00,000.
- As of 2011 records, the total population of Amravati has reached 647057. A decadal growth rate of about 17.75% was witnessed for a period between 2001 to 2011. Table below shows the population growth trend of Amravati.
- As per census records, the municipal area of Amravati is approximately 121.65 Sq. Km i.e. 12165 Hectare. Considering the census data of 2011, the Population Density is approximately 53 Person per hectare.
- No significant floating population is witnessed in the town. Small number of floating Population is there as per ULB due to weekly hat-bazaars etc. This population is for time specific, area specific and location specific.
- At per Census 2011, the town has 136796 residential households / premises distributed into 82 wards
- As per ULB records, about 3333 Non-residential Premises are existing in the ULB jurisdiction.
- As per the ULB records, the total slum population of Amravati town is 210574 which is 32.54 % of the population of total town. The average Household size in the slums is above 4.57
- The total road length in Town is 965 km. Out of the total road lengths ,87.56 % roads are more then 3.5 m wide, 12.44 % roads are less then 3.5 m wide. About 89.64 % roads are pucca roads and remaining 10.36 % are kutcha in nature.
- The ULB currently produces total 96.7 MLD water. Out of the total water produced, 0 MLD water comes from Ground water sources (0%) and 96.7 MLD water comes from Surface water sources (100 %).
- 98.28 Sq. Km of the municipal area is covered by drainage network. Majorly the coverage of drainage network is dominated by open drains (76 %), followed by Closed Drains (2 %) Underground sewerage network (21 %).
- The total drain Length existing in the town is about 1580 Kms. Out of the total existing drain, 1350 Kms (85 %) consists of primary drains, 170 Kms (11 %) consist of secondary Drains and 60 Kms (4 %) consists of tertiary drains. 20 % of the total drains are pucca in nature while the rest are kutcha.
- The population of the last few decades are as follows

SN	Year	Population
1	1971	193800
2	1981	261404
3	1991	421576
4	2001	549510
5	2011	647057

- The following table details out the projected population, household and waste generated for the town.

Population and Household Projections for Amravati							
Details	**Year 2018**	**Year 2023**	**Year 2028**	**Year 2033**	**Year 2038**	**Year 2043**	**Year 2048**
Population	729347	789622	851144	913915	977933	1043199	1109713
Households	154196	166939	179946	193217	206751	220549	234612
Waste Generation per Day in MT	291.74	315.85	340.46	365.57	391.17	417.28	443.89

- The samples were analyzed for various physico-chemical parameters by using standard procedures by MARS Enviro Research & Engineering Services Pvt Ltd (NABL accredited Laboratory for Testing). The following results were obtained from the test undertaken.

Average Waste Composition at Source and at Dumpsite				
Type			**Average at Source**	**At Dumpsite**
Biodegradable	Green Waste and Kitchen Waste	%	44.65	27.08
Recyclable	Plastic, Polythene, Tetra Packs Etc	%	9.00	6.54
	Paper and Card Board	%	9.66	3.61
	Metal	%	0.12	0.23
	Glass	%	0.36	0.32
Non Biodegradable	Textiles	%	5.32	1.81
	Horticulture Waste & Wooden Piece	%	6.62	12.64
	Leather, Rubber Etc	%	0.17	0.14
Inert	Inert (Silt, Debris, Construction and Demolition Waste Etc)	%	24.10	47.66
Source: MARS Enviro Research & Engineering Services Pvt Ltd (NABL accredited Laboratory for Testing)				

The following is the results of Physical and Chemical Characteristic of MSW.

Physicochemical Characteristic of MSW				
Type			**Average at Source**	**At Dumpsite**
Physical	Bulk Density	MT/ CuM	0.445	0.487
	Calorific Value	Kcal/Kg	1266.67	722.00
	Moisture	%	28.50	18.05
Chemical	PH	MT/ CuM	7.60	5.87
	Ash Content	%	23.12	55.05
	Total Volatile Content (LoI)	%	19.44	31.59
	Total Organic Carbon (ToC)	%	18.24	22.56
	Total Nitrogen	mg/kg	1.15	1.34
	Total Phosphates as P2O5	%	0.58	3.52
	Total Potassium as K2O	%	3.29	1.71
	C/N Ratio	%	16.15	15.34
Source: MARS Enviro Research & Engineering Services Pvt Ltd (NABL accredited Laboratory for Testing)				

Some major deficiencies in the existing SWM Management found in the ULB are highlighted in subsequent clauses.

Primary Waste Storage & Segregation	• 70 % of the Residential Households practices storage of waste in domestic bins • 78 % of the Non-residential premises uses commercial / institutional bins for primary storage of waste. • 10 % residential household practices segregation of waste at source. • 25 % non-residential household practices segregation of waste at source.	
Street Sweeping and Drain Cleaning	• Out of the total length of major roads (865 KMs) only 85 % roads (735.25 Kms) are swept with various frequencies.	
Secondary Waste Storage	• No. of bins Placed:- 350 Nos. • Total volume of bins placed:- 1350 CuM • Functional bins-(300 Nos) • Non-Functional bins-(50 Nos)	
Waste Handling through Primary C&T	FROM Door to Door Collection TO Treatment /Disposal Site	(211.2 MT) - 73.59%
	FROM Door to Door Collection TO Community Bins / Secondary Transport Vehicles	(0 MT) - 0%
	FROM Door to Door Collection TO Open Grounds	(0 MT) - 0%
Waste Handling through Secondary C&T	FROM Community Bins / Secondary Transport Vehicles TO Treatment /Disposal Site	(0 MT) - 0%
	FROM Community Bins / Secondary Transport Vehicles TO Open Grounds	(0 MT) - 0%
	FROM Community Bins / Secondary Transport Vehicles plus Street Sweeping TO Treatment /Disposal Site	(0 MT) - 0%
	FROM Community Bins / Secondary Transport Vehicles plus Street Sweeping TO Open Grounds	(0 MT) - 0%
	FROM Only Street Sweeping TO Treatment /Disposal Site	(30 MT) - 10.45%
	FROM Only Street Sweeping TO Open Grounds	(0 MT) - 0%
Daily Waste Collected & Transported	• Total Waste Collected / Stored per Day-- 241.2 MT (84%) • Total Waste Transported to Treatment and Disposal Site per Day- 241.2 (84.05 %)	
Waste Treatment	• Available MSW Processing Facility :- YES • Type of Treatment Used :-Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology • Processing Currently Done :- • Biodegradable Waste - (3) - 1 %	

Waste Disposal	• Available Disposal Facility: YES • Estimated Amount of Old Waste at Disposal Site : 75180.71 tones • Land currently utilized for waste disposal :70000 Sq. MT	
Status & Availability of Land	• Survey Number:-144, 295/1, 295/2, 26 • Area(in Hectare):-12, 2.83, 1.15 • Current Use:-Only Dumping	
Source: Analysis by the consultant *Important Note:- Assumed Weight per Capita per Day=400 Grams per Capita per Day		
Source: Analysis by the consultant on the basis of information provided by ULB.		

Status of Land Available for Waste Processing and Disposal				
No.	**Details**	**Sukhli Depot.**	**Akoli ByPass**	**Badnera**
1	Current Use	Only Dumping	Not in use	Not in use
2	Area(in Hectare)	12	2.83	1.15
3	Survey Number	144	295/1, 295/2	26
4	Distance of processing facilities from city/town boundary(in Kms)	3	4	3
5	Distance from the nearest habitation(in Kms)	1	2	1
6	Distance from water body(in Kms	1	6	4
7	Distance from state/national highway(in Kms)	1	2	1
8	Distance from Airport(in Kms)	11	7	5
9	Distance from important religious places or historical monument(in Kms)	170	172	178
10	Whether it falls in flood prone area	No	No	No
11	Whether it falls in earthquake fault line area	No	No	No
12	Site is fenced	No	Yes	No
13	Lighting facility is available on site	Yes	No	No
14	Weigh bridge facility available	No	No	No
15	Storage Facility Available	Yes	No	No
Source: Analysis by the consultant on the basis of information provided by ULB.				

The Summary of Proposed Plan of action is mentioned as under.

A stakeholder meeting was conducted on dated 15/11/2017 with the mayor, Commissioner and officials of the Municipal Corporation Amrawati for the concept of the detailed project report and for the selection of the site for the proposed Municipal Solid Waste Treatment plant. During the discussion it was suggested and agreed that at least three site should be proposed for the waste treatment looking to the operation and maintenance and transportation cost. Three site namely Sukhlia, Akoli Bypass and Badnera (pundeswar) was proposed for the landfill site. The entire three sites are Government land and the corporation has requested district authority for the handing over the site. The land is suitable for the waste treatment as per the guide line issued by the Swachh Bharat Mission Manual. The criteria for the selection of the site are as follows:-

At present the Municipal Corporation Amrawati is managing solid waste by private operator in two steps (1) collection of the waste by door to door and transportation up to storage bins by one operator and (2) Transportation of waste from bins to dumping site by another operator. The Corporation has

entered in to the contract for collection storage and transportation of the waste for the nine years. The necessary vehicles and machinery will be provided by the concerning operator, hence it was suggested that the proposed DPR should be prepared for the waste treatment and disposal only including bio mining at Suklia for the reclamation of the required land. The three sites mention above will be used for the waste treatment and the rejects of all the three sites will be disposed at proposed scientific landfill at Suklia. The Draft DPR was again presented and discussed before the official of the Municipal Corporation as well as the elected members of the council on dated 19/12/2017 and after few suggestions the draft DPR is prepared.

Zone wise forecasted Population						
S.No.	**Zone No.**	**Population 2011**	**Population 2018**	**Population 2028**	**Population 2038**	**Population 2048**
1	1	365801	412323	481179	552855	627354
2	2	194764	219534	256196	294359	334027
3	3	86493	97494	113775	130723	148337
	Total	**647058**	**729351**	**851150**	**977937**	**1109718**

% Population covers in zone

S.No.	**Zone No.**	**Population 2018**	**House Hold**	**Expected Waste Generation in MT**	**% Population covers**
1	1	412323	87172	164.93	56.53
2	2	219534	46413	87.81	30.1
3	3	97494	20612	39	13.37
	Total	**729351**	**154197**	**291.74**	**100.0**

Stages of project

	Phase-I		**Phase-II**		**Phase-III**	
	@ 2028		**@ 2038**		**@ 2048**	
Zone No.	**Forecasted Population**	**Waste Generation (in MT)**	**Forecasted Population**	**Waste Generation (in MT)**	**Forecasted Population**	**Waste Generation (in MT)**
1	481179	192.47	552855	221.14	627354	250.94
2	256196	102.48	294359	117.74	334027	133.61
3	113775	45.51	130723	52.29	148337	59.33
Total	**851150**	**340.46**	**977937**	**391.17**	**1109718**	**443.88**

1. Waste Segregation at Source

It is proposed to segregate waste as **WET (kitchen waste); DRY (recyclables and other waste); and DOMESTIC HAZARDOUS WASTE (CFL, tube light, etc.).** This is commonly referred to as BASIC SEGREGATION. Segregation of MSW is linked to primary collection of waste from the doorstep and given high priority. The following method of segregation is proposed for the ULB

General Method For Segregation of Waste at Source					
BASIC SEGREGATION					
Wet waste (Green bin)	Dry waste (Blue bin)				Domestic Hazardous[1]
	With further sub-segregation BASIC+				
Food wastes of all kinds, cooked and uncooked, including eggshells and bones, flower, fruit and waste including juice, vegetable peels and household garden/plant wastes. Soiled tissues, food wrappers, paper towels; fish and meat	Paper cardboard and cartons	Containers & packaging of all kinds excluding those containing hazardous materials Compound packaging (tetrapak, blisters etc.) Plastics	Rags Rubber Wood Discarded clothing Furniture	Metals Glass (all kinds) Inerts House sweepings and inerts (not garden, yard or street sweepings)	E-waste[2] Hazardous wastes[3] Household medical waste[4] Batteries from flashlights and button cells. Lights bulbs, tube lights and Compact Fluorescent Lamps (CFL) Car batteries, oil filters and car care products and consumables

2. Collection and Transportation

The following are the Requirements of Vehicles and Equipment calculated on the basis of the design criteria (Refer Annexure) and availability of the existing Vehicles and Equipment's.

S. No.	Type of Vehicle	Required Vehicle	Used for
1	Mini Truck	84	Collection & Transportation
2	Auto Tippers	74	Street waste Transportation

S. No.	Type of Vehicle	Required Vehicle	Used for
1	Mini Truck	45	Collection & Transportation
2	Auto Tippers	40	Street waste Transportation

S. No.	Type of Vehicle	Required Vehicle	Used for
1	Mini Truck	20	Collection & Transportation
2	Auto Tippers	18	Street waste Transportation

3. Waste Processing

It is proposed that biodegradable waste will be treated with the help of WINDROW technology followed by SCEENING, for getting quality manure. The following is the overview of the proposed processing system.

(i) Pre-processing of MSW: Pre-processing separates the material into different streams, which are suitable for specific products—biodegradable for composting, combustible dry material for RDF, separation of recyclable material Etc. Segregated MSW received at the Pre-Processing plant is weighed at the weighbridge and then dumped at the proposed Dumping Yard. The waste at the dumping yard consists of 40%–50% non-

[1] *To be stored and disposed separately.*

[2] *Printer & printer cartridges, electronic parts and equipment and others*

[3] *Chemicals and solvents and their empty containers, paints, oil, lubricants, glues, thinners and their empty containers, insecticides, pesticides and herbicides and their empty containers, photographic chemicals, bleaches and household kitchen & drain cleaning agents*

[4] *Thermometers and other mercury containing products, discarded medicines, injection needles and syringes after destroying them both, sanitary wastes and diapers (should be collected daily)*

biodegradable material. The waste at the Dumping yard is pre-sorted through a simple processing machine. The processing machine will give (45%) Biodegradable Waste which will go for composting, (35%) Non-biodegradable material which will be stored at the MRF Storage Shed and (20%) Reject which will be landfilled. Items not suitable for the Processing Machine, such as glass bottle, metal container, any hazardous material like containers of paint, etc. are taken out by manual Sorting and Stored at the MRF Storage Shed. As the incoming material is proposed to have a source segregation, the pre-processing needed is minimal and reduces the capital and O& M cost.

(ii) Windrow Composting: Windrow composting process consists of placing the pre-sorted feedstock in long narrow piles called windrows that are turned on a regular basis for boosting passive aeration. The turning operation mixes the composting materials and enhances passive aeration. This activity takes six week (42 Days).

(iii) Bio Gas Plant : The waste will be collected once a day with the help of available system, all this will be crushed thru crusher in one slurry receiving tank. Here the slurry is then properly mixed with the help of mixer pump and then will be pumped to biogas digesters. The biogas produced here is initially collected in to the biogas holder and the digested slurry overflows through outlet chamber in to digested slurry tank. Generated Biogas will be stored in raw Biogas Balloon. Raw biogas from balloon will be pressurized with the help of biogas blower and then send to scrubbing section. Biogas scrubber includes H2S scrubbers. These are proprietary scrubbers made in MS with FRP lining with packing material to remove moisture, corrosive H2S and partly CO2 from raw biogas before it fed to the biogas Generator to improve its life and efficiency. This clean biogas will then send to clean biogas balloon. The Biogas generated here will be utilized for power generation. Generated power can be utilized for any application (campus lightening, motors etc), agriculture application, etc.

4. Waste Disposal

Simple Landfill design is proposed which involves development of concept, adoption of suitable procedure and safety considerations. A landfill is a typical combination of different component and each of these components has to be designed separately. Before generating a complete design of sanitary landfill, design concepts for each component has been developed. For this process standard design procedure by CPHEEO Manual on municipal solid waste management, United States Environmental Protection Agency's Manual on Solid Waste Management (Subpart –D- Design Criteria) and Municipal Solid Waste (Management & Handling) Rules have been adopted. A design concept for the following components has been developed.

- Design life
- Assessment of landfill volume and area required
- Evaluation of concept development plan- Foot Print of Landfill Site.
- Design of final cover system

(i) Design Life: The design life of the landfill are for Amravati town has been considered as 5 years as specified in Terms of Reference. The design period is 2018-2022.

(ii) Landfill Volume and Area Required: The area required for landfill development at Amravati town is assessed based on the method suggested in CPHEEO manual. The detailed procedures and calculations have been presented in Annexure.

(iii) Evaluation of Concept Development Plan- Foot Print of Land Fill Site: Based on the topography and shape of the site identified for landfill development a broad concept for development of landfill was evaluated. The final shape and phase- wise development plan and internal cell arrangement was finalized after estimating the volume required for the land-filling of waste from 5 years (design life).

(iv) Design of Final Cover System: A final landfill cover is composed of several layers, each with a specific function. The surface system enhance surface drainage, minimize infiltration, support vegetation and control the release of Landfill gases. As recommended by the MoEF and CPHEEO the final cover system consist of a vegetative layer supported by a drainage layer over barrier layer and gas vent layer.

5. Capital Requirements

S. No.	Zone No.	Land details	Land Available (in Hectare)	Land Required (in Hectare)	Population Covered (In %)	DPR Cost (In Crore Rs.)
1	1	Sukhli Depot	9.35	4.79	56.53	25.37
2	2	Akoli Bypass	2.83	0.95	30.1	7.07
3	3	Badnera Pundeshwar	1.15	0.54	13.37	4.52
Total				**6.28**	**100.0**	**36.97**
5	IEC (For A- Class Municipal Corp. = 1 Cr. or 5% of DPR cost; whichever is less.)					**1.00**
6	Total Project Cost					**37.97**

The following is the summary of Capital Requirements for the proposed project.

Cost of Collection & Transportation system is not considered in the DPR, because ULB already have appointed separate agency for Collection & Transportation for 9 Years.

Details	Capital Requirements in Amount (in Rs.)	Per Capita Cost As per Census 2011 Population (in Rs.)	Per Capita Cost As per 2018 Projected Population (in Rs.)
(A) Capital Requirements For Collection and Transportation	0	0	0
(B) Capital Requirements For Treatment & Disposal	**36,97,48,550.90**	571	507
(C) Total Capital Requirements for Project	**36,97,48,550.90**	**571**	**507**
(D) Capital Requirements for Awareness and IEC	**1,00,00,000.00**	**15**	**14**

6. O&M Requirements

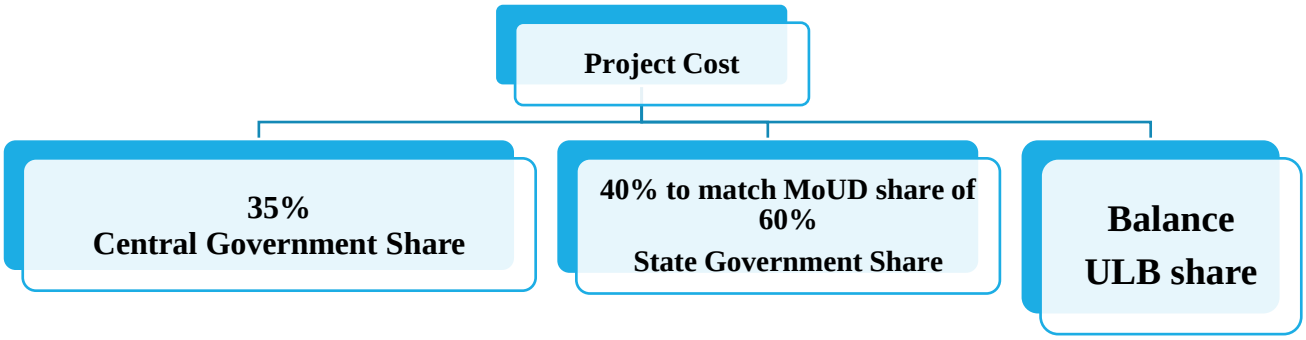
The following is the summary of O&M Requirements for the proposed project.

Details	Capital Requirements in Amount (in Rs.)	Per Capita Cost As per Census 2011 Population (in Rs.)	Per Capita Cost As per 2018 Projected Population (in Rs.)

(A) O&M Requirements For Collection and Transportation	**30,39,26,000.00**	**469**	**416**
(B) O&M Requirements For Treatment & Disposal	**2,63,17,180.00**	**41**	**36**
(C) Total O&M Requirements for Project	**32,92,43,180.00**	**509**	**451**

7. Proposed Funds for Capital Expenditure

The project is proposed to be implemented by ULB. The financing structure has been designed in such a fashion that the project financing risk and the cost overloading risk are mitigated. The following is the overall financial structuring proposed for the project.



As per the table shown below, the 58.33% of the project cost will be covered from grant from Central Government (35%) and State Government (23.33%). The remainder has to be brought in by ULB.

Overall Funding Structure		
Stakeholder	**INR Lakhs**	**%age Share**
Capital Grants from Central Government	**1329.15**	**35%**
Capital Grants from State Government	**885.98**	**23.33 %**
ULB Share	**1582.45**	**41.67 %**
Total Project Cost	**3797.58**	**100%**
Source: Proposed by the consultant		

8. Proposed Funds for O&M Expenditure

Private Sector Participation or Public Private Partnerships may be considered by ULB for meeting the O&M Expense. This will check growth in the establishment costs, bring in economy in expenditure and introduce an element of healthy competition between the private sector and the public sector in solid waste management services. There should be a right mix of private sector and public sector participation to ensure that there is no exploitation of labour as well as of the management. Prospective areas for privatization could be any/many of following:

- **PACKAGE-I: DOOR TO DOOR COLLECTION OF DOMESTIC WASTE/ COLLECTION AND TRANSPORTATION UP TO PROCESSING PLANT**
  Payment done on house-hold / type of establishment basis seems to be an acceptable method, especially when the operator is allowed to collect a part of the charge directly from households. The payment to the operator should not be on weight basis. Here the private operator has no incentive to reduce the waste through segregation. In fact it would provide an incentive to discourage segregation, and even bring debris, etc to the processing point to get more payment.
- **PACKAGE-II: TREATMENT AND DISPOSAL OF WASTE**
  Payment to be done on output basis like per tonne of Saleable Compost etc. and should not be on incoming weight basis.

The following is the proposed revenue model which includes proposed tarrif charges, revenue from sale of products, revenue from user charges for meeting the O&M Requirements

- **Proposed Tariff Charges, Income Generation etc (Including Street Sweeping):- Rs. 58/- Per Month per Household**

***

STRUCTURE OF REPORT

This is the Draft Stage Detailed Project Report for Solid Waste management of the mentioned ULB. This DPR is presented **four** sub-volumes (**Volumes I to IV**) including this Main Report:

Volume I: Main Report covers the following sections Following 2 Parts

Part 1 consist of existing situation with the following sections

- Section 1 Introduction to the Project;
- Section 2 provides detail of project town
- Section 3 describes the existing SWM System in ULB and its current status;
- Section 4 establishes planning and design criteria and demand gap assessment for preparation of DPR for SWM system;

Part 2 consist of Proposed actions for improvement in the solid waste management situation with the following sections

- Section 5 defines the scope and objectives of the DPR and establishes the Project Rationale;
- Section 6 presents the Detailed Design of the proposed SWM system;
- Section 7 provides Institutional Aspects and Capacity Building Strategies for implementation of the proposed SWM System;
- Section 8 provides Community Awareness and Public Participation Strategies for implementation of the proposed SWM System;
- Section 9 is related to O&M Aspects of the proposed SWM System;
- Section 10 provides Project cost estimates including operation and maintenance cost estimates;
- Section 11 provides a project financial structuring and strategies for the proposed SWM System.
- Section 12 provides Detailed Designs, Detailed Estimates & Detailed Drawings

Disclaimer

This report is prepared on the basic data produced, analysed and obtained from the secondary sources like CDP, site visit and consultation with the stakeholder& ULB Officials. Every effort has been taken to check the accuracy of the data source however this cannot be construed as fully reliable. The objective of the report is to firm up the policy level decision making for the project. However, MaRS Planning and Engineering Services Pvt. Ltd. cannot be held responsible for the decision taken solely based on this report.

MAIN REPORT

Amravati

District-Amravati

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1. Introduction to the Project

1.1. Definition of MSWM

Municipal solid waste (MSW), also called Urban Solid Waste, and is a waste type that includes predominantly household waste (domestic waste) with sometimes the addition of commercial wastes, construction and demolition debris, sanitation residue, and waste from streets collected by a municipality / ULB within a given area. They are in either solid or semisolid form and exclude industrial hazardous wastes and bio-medical waste. MSW can be broadly categorized into four broad categories such as:

- **Biodegradable waste:** food and kitchen waste, green waste (vegetables, flowers, leaves, fruits), paper (can also be recycled).
- **Recyclable material:** paper, glass, bottles, cans, metals, certain plastics, etc.
- **Inert waste:** construction and demolition waste, dirt, rocks, street sweeping, drain silt, debris.
- **Domestic hazardous waste (also called "household hazardous waste") & toxic waste:** medication, e-waste, paints, chemicals, light bulbs, fluorescent tubes, spray cans, fertilizer and pesticide containers, batteries, shoe polish.

MSWM is an integral component of municipal services delivered by ULBs, who are responsible for the safe and healthy environment of a city or a town.

1.2. Project background

1.2.1. About Swachh Bharat Mission-SBM

The “Swachh Bharat Mission-Urban” (SBM-U) is a major initiative of Government of India. Launched on the birth Anniversary of Mahatma Gandhi on 2nd October 2014, the mission seeks to attain his vision of a ‘Clean India’ by his 150th birthday in 2019. Expected to cost over Rs. 62,000 crore, it is a national campaign covering 4041 statutory towns.

The SBM-U is a bold and visionary response to one of India’s key urban challenges. The specific objectives of the Mission, describe a comprehensive set of actions that can deliver, at one end, the goals of social transformation, such as eliminating open defecation and manual scavenging, and, at the other, the goals of scientific solid waste management and sanitation, through the fundamental instruments of social change: change in behaviour and attitudes, and greater awareness about the adverse health effects of poor sanitation and waste management.

Modern and scientific Solid Waste Management (SWM) is one of the key component of the SBM-U and it was felt that urban bodies face challenges in zeroing down methods of collection and transportation, treatment technology selection and disposal methods. This shortcoming also retards project progress as implementers take time to gather information from various sources to understand the sector as there is no nutshell document that provides comprehensive information about the sector.

The Central Government incentive for SWM under SBM will be in the form of a maximum 35% grant or Viability Gap Funding (VGF) for each project. The State Government will contribute a minimum of 40%funds for SWM projects of Central share. This is minimum assured government contribution available to all ULBs considering an estimated project cost based on unit cost of Rs. 1,200 per capita.

In addition to the above, other initiative and support provided by Government of India is as under:

- In case of compost, market development assistance in the form of subsidy to the tune of Rs. 1,500 per metric ton is available on sale of compost. In addition to this, Maharashtra State had developed compost brand “HARIT MAHA CITY” for developing a market for City Compost.

- In case of waste to energy plants, Central Electricity Regulatory Commission (CERC) has notified generic tariff for sale of electricity at the rate of Rs. 7.04 per unit for mixed MSW based waste to energy plant and Rs. 7.90 per unit for RDF based plant.
- Ministry of Power has made is mandatory for all state Discoms to purchase 100% power generated from MSW based power plant.

1.2.2. About Swachh Maharashtra Mission-SMM

The Government of Maharashtra proposes to strengthen the entire MSWM system in all the Urban Local Bodies (ULBs) in Maharashtra to comply with the Solid waste management Rules 2016, Service level Benchmarks of the Government of India & achieve the objectives of Swachh Bharat Mission by 2019. For achieving the objectives of the Swachh Bharat Mission, Government of Maharashtra has launched "Swachh Maharashtra Mission" at the state level. Swachh Maharashtra Mission in urban areas is being implemented by Urban Development Department (UDD) through a dedicated Swachh Maharashtra Mission.

Swachh Maharashtra Mission (SMM) is the State Level Nodal Agency for facilitating implementation of the Swachh Maharashtra Mission in Urban Maharashtra.

1.3. Project formulation Justification (need for the project)

As a first step, under the Swachh Bharat Mission ULB's are to prepare Detailed Project Report (DPR) for solid waste management of their city and get it approved from the State High Power Committee.

DPRs should be aligned with Government of India's goals outlined in the National Urban Sanitation Policy (NUSP) 2008, SWM rules, advisories, CPHEEO manuals (including cost-recovery mechanisms), O&M practices and Service-level Benchmark advisories released by MOUD from time to time.

2. City Profile

2.1. District Overview

Amaravati is one of the ULB in Amravati district of Amravati Division. The following is the information of Amravati District.

(A) Location, Boundary & Area

Amravati District is situated right in the centre of the northern border of Maharashtra state. It lies between 20º 30' and 21º50' north latitudes and 76º35' and 78º27' east longitudes. It is bounded in the north by Madhya Pradesh State, in the east by Nagpur and Wardha Districts, in the south by Yavatmal and in the west by Washim, Akola and Buldana Districts. The District headquarters is located at Amravati. It has been known as principal cotton market. The main central railway line passes through Badnera in the southern portion of the city and a branch line runs north to Amravati, 9.65 kms. away. The national highway, NH 6 also passes through Amravati.

The District has an area of 12,210.0 sq.kms. and a population of 2,888,445 persons as recorded in Census, 2011. While the area of the District accounts for 3.97 percent of the total area of the State, the share of population of District is 2.57 percent of the total population of the State. The density of population is 237 persons per sq. km. Among the 35 Districts of the State, the District ranks 7th in terms of area, 14th in terms of population and 28th in terms of density.

(B) History of District

The name of the District is taken from the name of the town which is District headquarters. The name Amravati suggests to mean the abode of immortals, that may be traced from its association with Lord Krishna.

The history of the Amravati District which contains both the ancient and the modern capitals of Berar, is to a great extent that of the province itself.

Berar is first mentioned under the name of Vidarbha in Mahabharata, one of the two great epics of the Hindus. The early history of the District is vague and fragmentary. Berar formed part of the empire of Ashoka Maurya, who reigned from 272 to 231 B.C. The region experienced Hindu and Mohammedan periods and went through rules of different dynasties.

In 1833, the District with the rest of Berar was assigned to the East India Company in satisfaction of the debt and for the future security. The province was divided into two Districts, south Berar (Balaghat) with its headquarters at Hingoli and North Berar with headquarters at Buldana. North Berar included the present Amravati District, the northern half of Akola and part of Buldana.

Subsequently, North Berar was reconstituted into East Berar with headquarters at Amravati and West Berar with headquarters at Akola. A new District of Ellichpur (Achalpur) was created in 1857 by separating three Tahsils of Ellichpur, Melghat and Daryapur from East Berar District.

In 1864 the Yeotmal District, at first called the South-east Berar and later the Wani District, was separated from Amravati and in 1867 the Ellichpur District, which at first included the Tahsil of Morsi, subsequently restored to Amravati, was formed. In 1903 the treaties of Assignment were superseded by an agreement under which the Nizam leased Berar to the Government of India in perpetuity in return for an annual rent of twenty-five lakhs. However it was decided that on the first day of every January, the Nizam's flag would be unfurled at Amravati and would be given a salutation by the cannons from the British army. In 1905, when the Districts of the province were redistributed, Ellichpur (Achalpur) District was again amalgamated with Amravati, while the Murtijapur taluk was transferred from Amravati to Akola.

There were no major changes in the boundaries of the District or its Tahsils between 1911 to 1955. When the reorganisation of States took place in the year 1956, the District was transferred from Madhya Pradesh to Bombay State. The District forms a part of Maharashtra since 1st May 1960. At the time of 1961 Census, this District was divided into 6 Tahsils comprising 1968 villages including 359 uninhabited villages and 13 towns. In 1981 Census, there was no change in the number of Tahsils but number of towns was reduced to 12. After 1981 census, 7 new Tahsils were created and in all there are 13 Tahsils in Amravati Districts in 1991. The number of towns reduced from 12 in 1981 to 11 in 1991 because of merger of Badnera Municipality into Amravati Municipal Corporation. The number of villages has also come down from 1999 in 1981 to 1996 in 1991. For 2001 census there were 2002 villages. In 2011 census the District has 14 Tahsils, 12 towns and 1997 villages (including 360 uninhabited villages)

(C) Physiography

Amravati District occupies the extreme north eastern part of the Tapi-Purna Valley, the micro level division of Deccan Plateau. On the basis of relief, the District can be grouped into three parts i.e. 1) Gawilgarh Hills, 2) Chandur Uplands, and 3) The Plain or „Payinghat", which can be further divided as a) The Tapi Valley, b) The Purna Basin, and c) The Wardha-Bembla Plain.

The Gawilgarh hills are the offshoots of the Satpura Range and cover Chikhaldara Tahsil, eastern part of Dharni and the northern fringe of Anjangaon Surji and Achalpur Tahsils. These hills are badly eroded and dissected by numerous streams, which originate in the central part of the hills. The crests of the range attain an average elevation of about 1000 meters, the highest point being Vairat at 1177 meters. The hills are fairly covered by dense mixed jungle, mainly teak. These are mainly reserved forests. Chikhaldara is a hill resort in the area developed by the State Government.

Chandur Upland is comprised of parts of Teosa, Amravati and Chandur Railway Tahsils. The region attains a height of about 350 to 450 meters and has been dissected by numerous streams resulting in an uneven surface. The region is fairly covered with forests, mainly teak. These forests are reserved forests.

The Plain or "Payinghat" is divided into three divisions as per their drainage systems. A) The Tapi Valley occupies a small portion of Dharni Tahsil at the north western corner of the District. It varies a height varying

between 300 to 400 meters above mean sea level and slopes towards the southwest. The surface of the area is uneven and it is partly covered with forests. It is a piedmont belt of light and medium black soils with abundant ground water.

B) The Purna Basin occupies the middle part of the District and spreads over Anjangaon Surji, Daryapur, Bhatkuli, Achalpur and Chandur Bazar Tahsils and also the western parts of Amravati and Morshi Tahsils. It is the upper part of the Tapi River basin and has an elevation varying between 250 meters in the south and 400 meters in the north. This basin gradually slopes towards the south and the surface is relatively smooth. The rich black soil found in this region is locally known as “Aval Kali”, “Chikan” and “Gao Ran”.

C) The Wardha-Bembla Plain spreads over Warud, major parts of Morshi, eastern parts of Teosa and Dattapur Dhamangaon Tahsils and southern parts of Nandgaon Khandeshwar and Chandur Railway Tahsils. This region attains a height of above 300 meters. In the north, in Warud, this height reaches 450 meters. The plain gently slopes towards southeast and has relatively a smooth surface. It has deep and fertile black soils adjoining the Wardha river.

(D) Climate

The climate of the District is characterised by a hot summer and general dryness throughout the year except during the monsoon season. The year may be divided into four seasons. The winter is from December to February, which is followed by the summer season from March to May. The southwest monsoon season is from June to September and the post monsoon season being October and November.

The climate of the Melghat hilly region, consisting of Melghat and Chikhaldara Tahsil is entirely different from the plains. The climate is cold and the region receives heavy rain during the south-west monsoon. In the plains the summer heat is severe during the day. With the outset of monsoons, the temperature falls and the weather becomes pleasant. With the withdrawal of the monsoons, day temperatures increase slightly, however, night temperatures progressively decrease. After October both day and night temperatures decrease progressively till December, which is the coldest month.

Temperatures rise rapidly from February till May which is the hottest month. In association with the western disturbance, which moves across North India in winter, temperatures may drop to 5 to 6 degrees Celsius.

The average annual rainfall in the plains is 877.4 mm while at Chikhaldara, a hill stations, it is about twice as much. The rainfall generally increases from southwest to north-east. The rainfall received during the southwest monsoon, constitutes about 85 percent of the annual rainfall. July is the rainiest month of the year. The variation in rainfall from year to year in the District is large.

Except during the monsoon and the latter part of summer the winds are generally light to moderate. In association with monsoon depressions which originate in the Bay of Bengal the District experiences strong winds and widespread heavy rain. Thunder stroms occur in all seasons, their frequency being least from November to January.

(E) Drainage

The main river of the District is the Purna, which rises in the southern slopes of the Gawaligaih hills and flows in a general south-westerly direction till it turns westwards and form a part of the District boundary between Amravati and Akola. Pedhi, Arna, Chandrabhaga and Shahanur are important tributaries of the Purna. The Wardha river rises to the east of Multai in Madhya Pradesh. It froms the eastern boundary of the District and receives a number of short tributaries on its right flowing within the District. Maru, Pak Nala, Narha and Chargar are the more important tributaries that join Wardha river within the District. The Tapi flows along the northwest boundary of the District. Khursi, Khardu, Sipna Garga, Dewal and Dhulghat are its tributaries.

(F) Forestry

This includes all land classified as forest under any legal enactment dealing with forest or administered as forest, whether state owned or private and whether wooded or simply maintained as forest land. Within the forest area itself, there may be occasionally cultivated patches or grazing lands, but such area are shown under column 104 of the Village Directory as forest. The process of regularization of land grants and effecting relevant changes in the basic records of survey and settlement are somewhat protracted and time consuming.

Therefore the information based on records is in some cases at least, likely to be different when compared with the actual field situation.

(G) Minerals and mining

So far no deposit of any important minerals have been traced in the District. However sedimentary clay that is used for manufacturing potteries, earthen wares, bricks, stoneware, pipes etc, are found at certain places in the District. The mining activities so far are restricted only to quarrying of stones, clay, sand gravel etc. Apart from the extensive spread of Purna alluvium, much of the District is covered by Deccan Traps though Hamenta, Gondwana and other metamorphic rocks occur as minor inliers in the northern part of the District. Trap being hard, dense and durable is most suitable for bulding purposes but is barren of any important minerals. Secondary minerals like Zeolites chalcedony and agate are however found.

(H) Soil and cropping pattern

Decomposition of the Deccan traps has given rise to either deep brown to rich red or black cotton soils (regur). The regur is rich in plant nutrients such as lime, manganese and low in Nitrogen and phosphorus. The soils of the District are mainly derived from the deccan trap and may be classified into three broad types. Shallow soils are found in the hilly regions near the foot of the hills, the soils are coarse and redish in colour, being derived from the debris washed from above. The fertility of the soils is low but they respond to the application of fertilizers. Jowar is the main crop grown.

Beyond this belt medium deep soils are found which are extensive and fairly fertile. They are well drained and respond readily to irrigation. Oranges, Plantains, Chillies and grapes are the main crops. There is also a mixed cropping of Jowar with black-gram or green gram or sometimes chillies are mixed with Cambodia cotton. Further away from the Satpudas the depth of the soils increases and there are abundant crops of cotton, Jowar and Wheat. The deep soils of the District are mainly found in the river valleys of Purna and Wardha and are known for their high production of cotton. Amravati is one of the major cotton-producing Districts of Maharashtra.

(I) Agriculture

Most of the people of Amravati District are engaged in agricultural activities as according to Census, 2011 the percentage of cultivators is 16.08 and that of agricultural labourers is 54.03 percent. Thus, together they constitute 70.11 percent of the total workers of the District.

(J) Industry

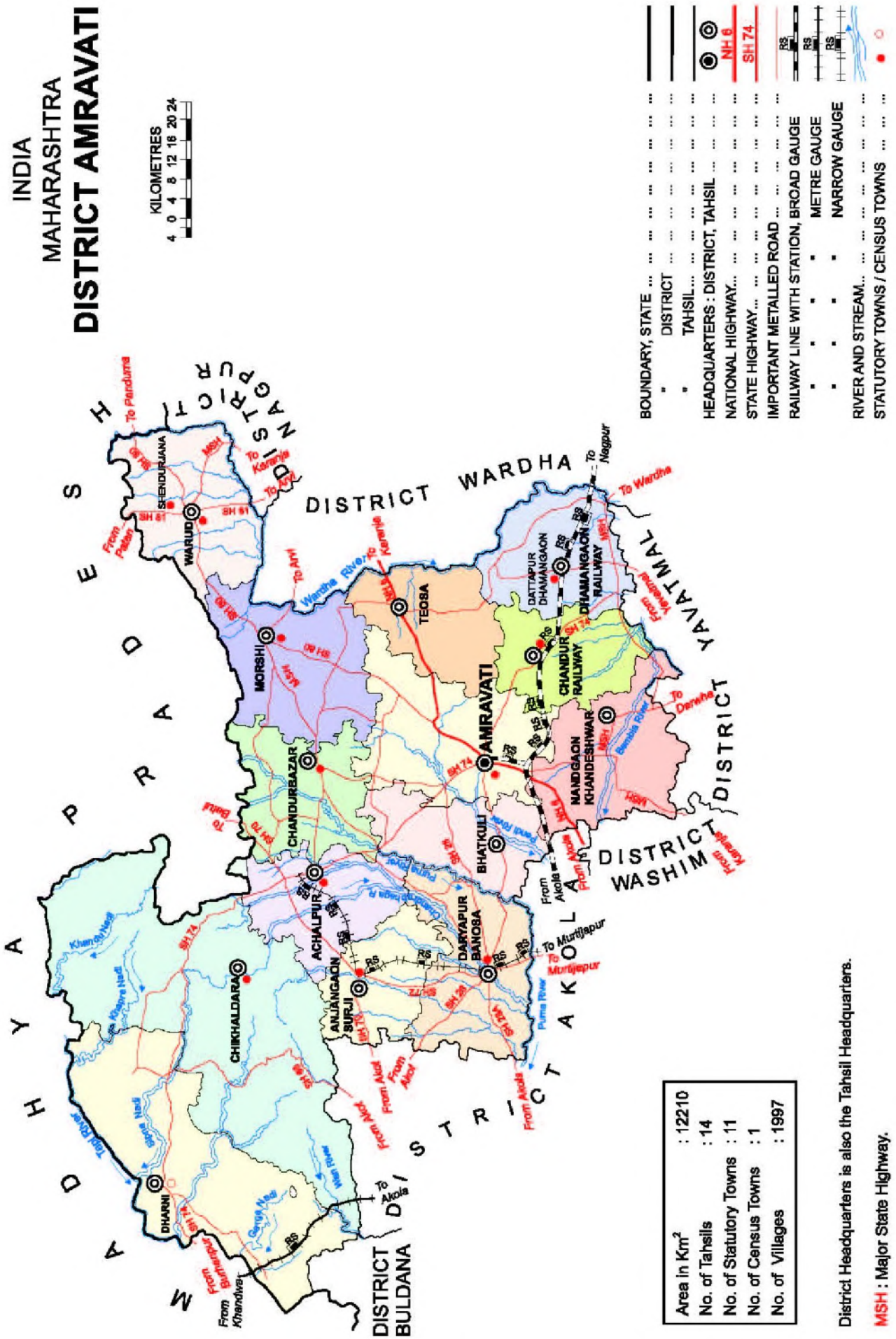
Cotton is grown extensively in the District. This has therefore, facilitated the establishment of a number of cotton ginning pressing units. Most of the large scale factories in the District are of cotton processing and oil crushing. There are mainly located in Achalpur, Amravati, Anjangaon Surji, Daryapur Banosa and Warud Tahsils. There are number of small scale units manufacturing oil and oil cakes mills located at Amravati, Badnera and Dhamangaon, Tiles, leather shoes, cotton thread, country tiles, bricks, turmeric powder and edible oil.

(K) Trade and Commerce

The District is famous for orange fruit plantation. There is a great demand for oranges from the District of Maharashtra as well as from outside state. Amravati District cotton market is supposed to be the biggest cotton market in Asia. It exports cotton both in row and processed forms. The other chief exports of the District are cotton bales, wooden furniture, chilli, silk, tur-dal, food grains, jowar, groundnut, edible oils and kumkum. In addition timber from Paratwada depot is sent all over the country. Most of goods are exported Mumbai, Pune and Madras.

(L) Electricity & Power

In Amravati District, 1,617 villages out of 1,637 inhabited villages are electrified. Thus, an impressive 98.78 percent of inhabited villages have installed power supply.


INDIA
MAHARASHTRA
DISTRICT AMRAVATI
KILOMETRES
4 0 4 8 12 16 20 24
BOUNDARY, STATE
DISTRICT
TAHSIL
HEADQUARTERS : DISTRICT, TAHSIL
NATIONAL HIGHWAY
STATE HIGHWAY
IMPORTANT METALLED ROAD
RAILWAY LINE WITH STATION, BROAD GAUGE
METRE GAUGE
NARROW GAUGE
RIVER AND STREAM
STATUTORY TOWNS / CENSUS TOWNS
NH 6
SH 74
MADHYA PRADESH
DISTRICT AKOLA
DISTRICT WASHIM
DISTRICT WARDHA
DISTRICT BULDANA
DISTRICT YAVATMAL
AMRAVATI
CHANDURBAZAR
MORSHI
WARUD
DHARNI
CHIKHALDARA
ACHALPUR
ANJANGAON SURJI
DARYAPUR BANOSA
BHATKULI
NANDGAON KHANDESHWAR
CHANDUR RAILWAY
DHAMANGAON RAILWAY
DATTAPUR DHAMANGAON
TEOSA
SHENDURJANA
Area in Km² : 12210
No. of Tahsils : 14
No. of Statutory Towns : 11
No. of Census Towns : 1
No. of Villages : 1997
District Headquarters is also the Tahsil Headquarters.
MSH : Major State Highway.

(M) Demography

- As per details from Census 2011, Amravati District has population of 28,88,445 an increase of 10.79% from figure of 26,07,160 in 2001 census. The increase in population of district is very Less when compared to the state of Maharashtra (i.e. 15.99%).
- The district has a population density of 237 inhabitants per square kilometre.
- Out of total population of District, about 35.91% people live in urban areas which has not changed when compared to 2001 figures. The urbanisation rate in the district is quite low when compared to the state of Maharashtra (i.e. 45%).
- The Literacy rate in district in the year 2011 for Urban area is **82.06%**which is low as compared to the state of Maharashtra i.e. 88.69% while the literacy rates in rural areas of the district is 75.67% which is also low when compared to the state of Maharashtra i.e. 77.01%.
- The Sex Ratio (No. of females per 1000 males) in the year 2011 in Rural Area (947) is less than Urban Areas (957). While the sex ration of the state of Maharashtra in rural area is 952 and urban area is 903.
- The female literacy rate in rural area is very low when compared to urban areas.

The following table details out the demography statistics of Amravati district.

Table 1: Demography of Amravati District

No.	Details	Rural	Urban	Total
1	Total Population (2001) (% with respect to total)	**17,07,581** (65.50%)	**8,99,579** (34.50%)	**26,07,160** (100.00%)
2	Total Population (2011) (% with respect to total)	**18,51,158** (64.09%)	**10,37,287** (35.91%)	**28,88,445** (100.00%)
3	Population Growth Rate	**8.41%**	**15.31%**	**10.79%**
4	Literacy Rate (2011)	**75.67%**	**82.06%**	**77.96%**
5	Male Literacy Rate (2011)	**80.12%**	**84.02%**	**81.52%**
6	Female Literacy Rate (2011)	**70.96%**	**80.00%**	**74.22%**
7	Sex Ratio (2011)	**947**	**957**	**951**

Source: Census of India

2.2. Town Overview

(A) History of Town

The town includes portions of the villages of Tarkhed, Rajapeth, Gambhirpur, Mahajanpur, and Saturna. The civil station of the camp area which till recently formed a separate town with a separate municipality has been merged in the Amravati town and has been brought within the administrative jurisdiction of a single municipality. Before it was merged it formed the eastern boundary of Amravati town. Cilam Sah Wali dargdh now forms the farthest eastern limits of the town. This part is on a higher elevation than the rest and attains a height of 401.05 metres (1,283 ft.) above sea-level. Amravati is a modern town and is said to have been founded by Raghuji Bhosle. Its fortunes commenced at the close of the 18th Century when the tyranny of the Akola tahsildar drove a number of inhabitants of that place to settle here; but its early years were by no means uniformly prosperous. Both the Nagpur and the Hyderabad rulers were represented here, the former taking 60 per cent and the latter 40 per cent of the revenues. The great wall of the town was built during these days. Its construction was begun in 1804 by the Nizam's government and was completed 17 years later at a cost of over 4 lakhs of rupees. Meadows Taylor's " Confessions of a Thug " vividly describes the daring raid of Citu, the Pendhari leader, on Amravati and it was to save the town from such calamities that the wall was built. The wall which is 3-62 km. (two and a quarter mile) in circumference and from 6.09 to 7.92 metres (20 to 26 ft.) in height, is neither architecturally beautiful nor strategically noteworthy. But it was very strongly built. Now the wall has cracked at various points and collapsed; but still is a subject of much local pride. It has five large gates (Amba. Bhusari, now called Jawahar, Nagpur, Kholapur and Mahajanavis) and four smaller ones, for foot passengers only, called Khirkis (the Khunari, Chatrapuri, Mata and Patel's Khirkis). The Khunari Khirki derives its name from a faction fight during the Muharram of 1816 A.D. (10th of Muharram 1226 Fasli) in

which nearly 700 persons were said to have been killed. In addition to the gates and khirkis mentioned already two more passages have been made viz., in Kangarpura and Sabanpura.

The town of Amravatl is divided into two parts, the old city within and the extensive suburbs outside the walls to which now the camp area has been added. Within the walls lie the muhallas and quarters called (1) Dhanraj street, (2) Macchisat, (3) Dahisat. (4) Bhusara street, (5) Bohorisat, (6) Sakarsat, (7) Sarafa, (8) Bajaja, (9) Baripura, (10) Patwipura, (11) Malipura, (12) Budhvara. (13) Kumbharvada and (14) Bhaji Bazar. ' Out- side the wall lie Namuna. Bud Peth. Amba Peth, Mudholkar Peth, Danda. Joglekar and Mangilal Plots, Ambikanagar, Kalyan Nagar, Moti Nagar, Mudaliar Nagar, Rukmini Nagar, Fraser-pura. Hamalpura, Belpura, Rajapeth, Khaparde garden, Masanganj. Ratanganj and many more.

The streets inside the wall are mostly narrow and the inhabitations suffer from congestion. In contrast to this the new settlements outside the walls have broad and well maintained streets and are far better ventilated. Namuna, Buti Peth, Ambikanagar, Mudholkar Peth, Mudaliar Nagar are some of the best localities of the town. The new bungalows, especially those which have come up along the camp road are extremely well built. Most of the part covered by the Jawahar road, Badnera road within the municipal limits, Saroj Cauk to Amba nala bridge and Jawahar gate to Jaystarhbha have underground drainage system. The houses' in this area are almost all well built upon solid plinths which except in the case of poorer houses are usually of stone. Namuna quarter contains two considerable open spaces, Nicoletts park now known as Nehru maidan and the Jog square. Hamalpura, Masanganj, Ratanganj, Fraserpura and Waddarpura are some of the less well to do localities. Caprasipura, a hamlet, intended originally as its name suggests for habitation by peons and orderlies has retained only its name.

(B) Location & Connectivity

Amravati (pop. 137,865) is the headquarters of the Amravati district as also the tahsil of the same name. It stands about 340.76 metres (1,118 ft.) above sea-level 20° 56' N and 77° 47' E and is situated at a distance of about 181.85 km. (113 miles) to the south-west of Nagpur, 672.71 km. (418 miles) to the north-east of Bombay and 1,310 km. (814 miles) to the south-west of Calcutta via Nagpur by railway. Though it is not on the main line of the Central railway it is connected with it by a branch line from Badnera on the main line, 9.65 km. (six miles) away as also by a fine tar road.

Near Cities	Walgaon 9.9 KM near
	Khar talegaon 13.3 KM near
	Anjangaon Bari 13.4 KM near
Near By Taluka	Bhatkuli 16 KM near
	Chandur Railway 26 KM near
	Nandgaon 15 KM near
Near By Air Ports	Sonegaon Airport 144 KM near
	Nagpur Airport 152 KM near
	Akola Airport 97 KM near
	Yavatmal Airport 97 KM near
Near By Tourist Places	Chikhaldhara 85 KM near
	Muktagiri 67 KM near
	Sevagram 113 KM near
	Sirpur 214 KM near
	Nagpur 152 KM near
Near By Districts	Nagpur 152 KM near
	Akola 97 KM near
	Betul 152 KM near
	Yavatmal 91 KM near
Near By Railway Station	Chandur Rail Way Station 26 KM near
	Daryapur Rail Way Station 55 KM near
	Murtizapur Rail Way Station 57 KM near

2.3. Population

2.3.1. Population Growth Trends

As of 2011 records, the total population of Amravati has reached 647057. A decadal growth rate of about 17.75% was witnessed for a period between 2001 to 2011. Table below shows the population growth trend of Amravati..

Table 2: Population Growth Trend of Amravati

Year	Population	Decadal Growth Rate (in %)	Average Annual Growth Rate (in %)
1971	193800	NA	NA
1981	261404	34.88	3.49
1991	421576	61.27	6.13
2001	549510	30.35	3.04
2011	647057	17.75	1.78

Source: Census of India

Table below shows other demography indicators for Amravati

Table 3: Other Demography Parameters of Amravati

Details	Measurement	Amravati		Total Urban Area of Amravati District
		Year 2001	Year 2011	Year 2011
Decadal Population Growth Rate	In %	30.35	17.75	15.31
Total Households	in Nos.	104657	136796	217169
Average Household Size	in person per Household	5.25	4.73	4.78
Sex Ratio	Females per 1000 Males	933	961	957
SC Population Share	% with respect to total Population	15.73	17.22	15.46
ST Population Share	As Above	3.09	2.47	3.42
Literacy Rate	As Above	78.72	82.77	82.06
Working Population	As Above	-	32.23	33.18

Source: Census of India

The following demography analysis can be drawn for Amravati from the table above

- The decadal population growth rate in the year 2011 when compared to that of the total urban areas of Amravati district (15.31%) is High
- The average household size has reduced from 5.25 in year 2001 to 4.73 in year 2011. The average household size when compared to that of Urban Areas of Amravati District is Low
- The sex ratio in the year 2011 is High when compared to that of Urban areas of Amravati District
- The literacy rate of Amravati has increased to 82.77% when compared to year 2001, and it is higher than that of the total Urban areas of Amravati District i.e. 82.06%.
- The SC Population Share is Higher (17.22%) than that of the total District Urban data.

2.3.2. Population Density

As per census records, the municipal area of Amravati is approximately 121.65 Sq. Km i.e. 12165 Hectare. Considering the census data of 2011, the Population Density is approximately 53 Person per hectare.

2.3.3. Floating Population

No significant floating population is witnessed in the town. Small number of floating Population is there as per ULB due to weekly hat-bazaars etc. This population is 86for time specific, area specific and location specific.

2.3.4. Population Projection

Considering the base period as 2018, Population projections for the years 2028, 2038 and 2048 are done. Considering the past decadal growths, the following different recognized methods are used to project population for Amravati.

i. ***Arithmetical increase method***

[Formula: P' = P + n.C ; C = dP/dt ; dP = P2 - P1; Where: P' = Final population; P = Present population, n = No. of Decade & C = Rate of Change of Population]

ii. ***Incremental increase method***

[P' = P + (C + I)*n ; Where: P' = Final population; P = Present population; C = Average increase in population; I = Average incremental increase in population; n = No. of Decade]

iii. ***Geometrical increase method***

[Formula: P' = P(1 + R/100)^n; Where: P' = Final population; P = Present population; R = Rate of Percentage Growth; n = No. of Decade]

iv. ***Decadal Growth Rate method***

The different projections scenarios has been carried out at micro level for individual wards depending upon the growth potential of individual wards in consultation with local body. The following table details out the projected population which is adopted for designing by taking average of Arithmetical increase method and Incremental Increase method.

Table 4: Population and Household Projections for Amravati

Details	Year 2018	Year 2023	Year 2028	Year 2033	Year 2038	Year 2043	Year 2048
Population	729347	789622	851144	913915	977933	1043199	1109713
Households	154196	166939	179946	193217	206751	220549	234612

Source: Consultant based on data from Census of India

2.4. Settlements In Town

2.4.1. Residential Premises

At present, the town has 154196 residential households / premises distributed into 22 wards. The Table below shows the ward wise details of population and Households for Amravati. Ward wise population analysis reveals that wards no. 10,15,20 are the most populated accounting for 4.98 %, 5.05% and 5.03% of the total population respectively. The rest of the population of town appears to be well scattered among the wards.

Table 5: Projected Spatial Distribution of households & Population

Ward No.	Projected Households (2018)		Projected Population (2018)	
	Nos.	% with respect to total	Nos.	% with respect to total
1	6543	4.24	30949	4.24
2	6423	4.17	30380	4.17
3	7317	4.75	34610	4.75

Table 5: Projected Spatial Distribution of households & Population				
Ward No.	**Projected Households (2018)**		**Projected Population (2018)**	
	Nos.	**% with respect to total**	**Nos.**	**% with respect to total**
4	7389	4.79	34948	4.79
5	6975	4.52	32990	4.52
6	7053	4.57	33361	4.57
7	6466	4.19	30586	4.19
8	6393	4.15	30241	4.15
9	4874	3.16	23053	3.16
10	7682	4.98	36335	4.98
11	6812	4.42	32220	4.42
12	6418	4.16	30355	4.16
13	6636	4.3	31390	4.3
14	7118	4.62	33669	4.62
15	7794	5.05	36864	5.05
16	7627	4.95	36074	4.95
17	7592	4.92	35912	4.92
18	7745	5.02	36634	5.02
19	7257	4.71	34325	4.71
20	7749	5.03	36654	5.03
21	7731	5.01	36568	5.01
22	6603	4.28	31231	4.28
Total	**154196**	**100**	**729349**	**100%**
Source: The above projection is done based on the available information from Census of India (2011)				

2.4.2. Non-Residential Premises

There are total 3333 Non-residential Premises as per ULB records available. These includes Shops & Commercial Establishments, Schools, Colleges, Govt. Institutions, Hotels, Restaurants, Banquet Halls, Large Markets, Health Care Establishments, Industries Establishments, Places of worship and others. However, no exact data is available for each of the non-residential premises. The details of non-residential premises are as under.

Table 6: Details of Non-Residential Premises				
Sr. No.	**Type**	**Sub Type**	**Number**	**Remarks**
1	Industries Establishments *	Manufacturing Units	47	NA
2	Large Markets *	Vegetable Markets	4	NA
3	Large Markets *	Slaughter Houses	3	NA
4	Large Markets *	Meat / Fist Markets	9	NA
5	Hotels, Restaurants, Banquet Halls *	Restaurants	156	NA
6	Hotels, Restaurants, Banquet Halls *	Hotels	114	NA
7	Hotels, Restaurants, Banquet Halls *	Banquet / Marriage Halls	28	NA
8	Govt. Institutions **	Only Offices	59	NA
9	Govt. Institutions **	Govt. Administration Premises	112	NA
10	College **	Polytechnics	18	NA
11	College **	Medical College	4	NA
12	College **	Engineering College	13	NA
13	College **	Commerce / Science Arts /Law or other College of Degree level	35	NA
14	School **	Secondary School	67	NA
15	School **	Primary School	112	NA
16	School **	Middle School	86	NA

Table 6: Details of Non-Residential Premises				
Sr. No.	**Type**	**Sub Type**	**Number**	**Remarks**
17	School **	Higher Secondary / Intermediate / Senior Secondary / PUC (Pre-university college) / Junior college Level	52	NA
18	Shops & Commercial Establishments *	Shops	1843	NA
19	Shops & Commercial Establishments *	Other Commercial Establishments	112	NA
20	Industries Establishments *	Service Units	54	NA
21	Industries Establishments *	Small & Medium Enterprises	67	NA
22	Health Care Establishments **	Hospital	25	NA
23	Health Care Establishments **	Private Dispensary	36	NA
24	Health Care Establishments **	Specialized Medical institutions	6	NA
25	Places of worship *	Mosques	63	NA
26	Places of worship *	Other	12	NA
27	Places of worship *	Temples	83	NA
28	Other **	Bus Stand	7	NA
29	Other *	Garden	94	NA
30	Other *	Other	9	NA
31	Other **	Railway Station	3	NA
Source: *- Urban Local Body; **- Census of India Information kept blank was not available at the time of data collection from ULB.				

2.4.3. Slums and Other Informal Settlements

As per the ULB records, the total slum population of Amravati town is 210574 which is 32.54 % of the population of total town. There are total 101 slum settlements present in the town out of which Gawlipura (2639 Households) and Aleem Nagar,Taj Nagar (2469 Households) are few major settlements.All the settlements are notified by the Urban Local body. also exists as per ULB information. The average Household size in the slums is above 4.57

Table 7: Exiting Details of Slums / Informal Settlements in towns					
Sr. No.	**Name of Slum / Cluster**	**Type**	**Ward No.**	**Population**	**Households**
1	Ahok Nagar	Notified	NA	372	79
2	Siddharth Nagar	Notified	NA	1276	270
3	Bhim Nagar	Notified	NA	1729	394
4	Patipura	Notified	NA	2659	562
5	Hanuman Nagar	Notified	NA	5459	1244
6	Anand Nagar	Notified	NA	1505	343
7	Vilas Nagar	Notified	NA	2517	574
8	Vadarpura	Notified	NA	1324	302
9	AdivasiNagar Mangilal Plot	Notified	NA	245	52
10	Samadhan Nagar	Notified	NA	739	156
11	Adivasi Nagar Rajapeth	Notified	NA	221	49
12	Bailpura, Matangpura	Notified	NA	2401	504
13	Aurangpura	Notified	NA	479	101
14	Jodmor	Notified	NA	343	72
15	Matha Kadki	Notified	NA	1156	197
16	Patanpura	Notified	NA	6274	1430
17	Haiderpura	Notified	NA	3107	708
18	Kurshidpura	Notified	NA	1284	293
19	Pardeshipura	Notified	NA	637	134

Table 7: Exiting Details of Slums / Informal Settlements in towns					
Sr. No.	**Name of Slum / Cluster**	**Type**	**Ward No.**	**Population**	**Households**
20	Mahajanapura	Notified	NA	1399	319
21	Zadpipura	Notified	NA	1010	231
22	Kadkadipura	Notified	NA	498	105
23	Chinchfail	Notified	NA	1071	225
24	Kothfail	Notified	NA	1935	387
25	Muzafarpura	Notified	NA	1857	403
26	Bichatekdi No.One	Notified	NA	5241	1194
27	Kungarpura	Notified	NA	1037	218
28	Bajrangtekdi	Notified	NA	297	63
29	Bailpura,Daroga Plot	Notified	NA	3461	789
30	Bombay Fail	Notified	NA	396	84
31	VilasNagar (Ramabai Ambedkarnagar)	Notified	NA	1198	252
32	AdarshNehruNagar	Notified	NA	930	196
33	Gurunagar/GaneshColony	Notified	NA	477	105
34	Faizapura	Notified	NA	4793	1092
35	Sanjay Gandhi Nagar No.One	Notified	NA	1333	304
36	Sanjay Gandhi Nagar No.Two	Notified	NA	765	161
37	Chatri Talav (Jevad)	Notified	NA	1388	317
38	Chaprashipura	Notified	NA	888	187
39	GandhiAshram	Notified	NA	779	188
40	Gandhinagar,Rahulnagar, Badnera	Notified	NA	1025	234
41	Nagpurpatti,Adivasinagar,Badnera	Notified	NA	2218	466
42	HaridasFail,Zadifail, Badnera	Notified	NA	2218	480
43	Mathafail/Sweeper Colony Badnera	Notified	NA	1082	229
44	Gauthamnagar	Notified	NA	99	22
45	Ravi Nagar	Notified	NA	232	52
46	Panch Bangla, Badnera	Notified	NA	574	128
47	Bichu Tekdi, No.Two	Notified	NA	1167	245
48	Mahathma Phule Nagar,Navsari	Notified	NA	1009	212
49	Rahath Gaon, No.One	Notified	NA	1576	330
50	Wadali	Notified	NA	810	170
51	Rajiv Gandhi Nagar, Chilam Chavni	Notified	NA	425	97
52	Indira Gandhi Nagar/ Vyakyapura	Notified	NA	880	201
53	Chavre Nagar	Notified	NA	873	190
54	Indira Gandhi Nagar Frajarpura	Notified	NA	533	112
55	Chaman Nagar Badnera	Notified	NA	1281	257
56	Shivaji Nagar Badnera	Notified	NA	360	76
57	Shivaji Fail Badnera	Notified	NA	920	168
58	Maruthi Nagar,Near Hindu Smashanbhoomi	Notified	NA	201	43
59	Siddharth Nagar Near Navsari	Notified	NA	201	43
60	Sathurna No.Two	Notified	NA	944	200
61	Banoda	Notified	NA	2225	507
62	Indiranagar Badnera	Notified	NA	277	59
63	Sindhi Colony Badnera	Notified	NA	771	176
64	Varuda	Notified	NA	836	188
65	Nimbora	Notified	NA	336	73
66	Akoli	Notified	NA	780	178
67	Sathurna Two	Notified	NA	305	64
68	Rahatgaon	Notified	NA	3438	726
69	Shegaon	Notified	NA	1824	416
70	Navsari	Notified	NA	1086	218
71	Mothinagar Kampaspura	Notified	NA	1811	383

Table 7: Exiting Details of Slums / Informal Settlements in towns					
Sr. No.	**Name of Slum / Cluster**	**Type**	**Ward No.**	**Population**	**Households**
72	Devinagar	Notified	NA	6886	1569
73	Praveen Nagar, Part	Notified	NA	1756	401
74	Hanuman Nagar No.Two	Notified	NA	1583	361
75	Tharsaheb Bagicha	Notified	NA	1458	306
76	Panhalal Bagicha	Notified	NA	1672	391
77	Gawlipura	Notified	NA	11582	2639
78	KalyanNagar	Notified	NA	1638	372
79	Chaya Nagar	Notified	NA	7208	1441
80	Uttam Nagar	Notified	NA	3872	817
81	Yashoda Nagar No.Two	Notified	NA	3389	716
82	Yashoda Nagar NoOne	Notified	NA	5271	1201
83	Gous Nagar	Notified	NA	4293	978
84	Azad Colony	Notified	NA	2235	469
85	Deshpande Plot	Notified	NA	8164	1860
86	Amba Vihar	Notified	NA	1892	397
87	Mahadev Kheri	Notified	NA	2225	467
88	Mahadev Nagar Mahalaxmi ColonyAmba Colony	Notified	NA	4250	850
89	Aleem Nagar,Taj Nagar	Notified	NA	11700	2469
90	Sevadal Nagar	Notified	NA	1882	395
91	Alusmas Nagar,Chotanalsabpura, Khatikpura	Notified	NA	8552	1949
92	Ansar Nagar	Notified	NA	3375	709
93	Mill Chawl Badnera	Notified	NA	1700	393
94	Rehmat Nagar	Notified	NA	3295	692
95	Nalsabpura	Notified	NA	4250	922
96	Rampuri Camp	Notified	NA	3475	730
97	Siddharth Nagar No.Two	Notified	NA	790	166
98	Lalkadi	Notified	NA	4200	911
99	Rajmatha Nagar	Notified	NA	245	54
100	Rajmatha Nagar No.Two	Notified	NA	65	15
101	Vasantrao Naik Nagar	Notified	NA	874	184
	Total	Notified=101 Non-Notified=0 Other=0	Total 101	210574	46051
Source: Census of India & Urban Local Body					

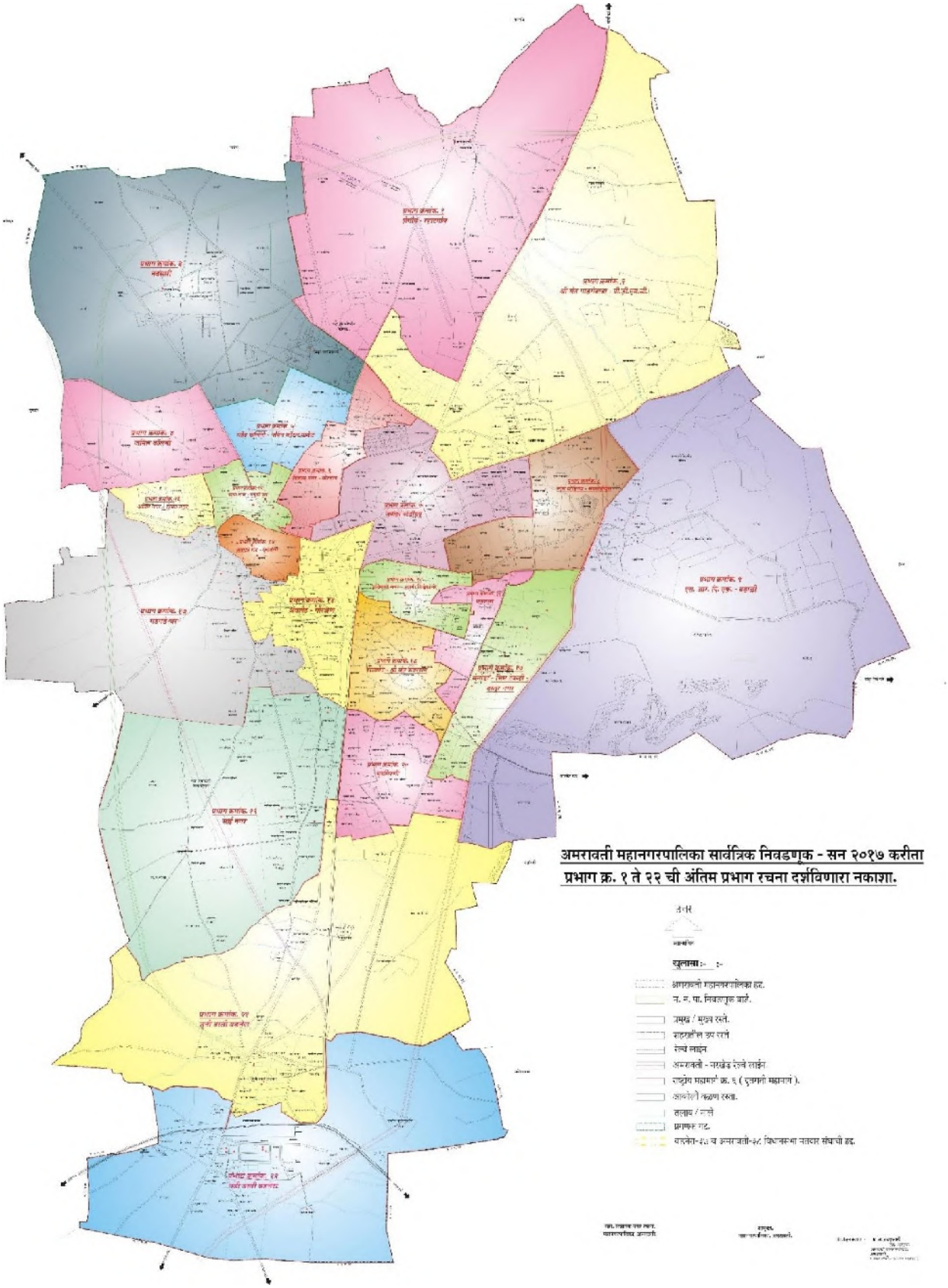
2.4.4. Industries And Their Profile

The economy of the town is mostly driven by agriculture and businesses in the surrounding area. The principal crops are cotton and soyabeans.

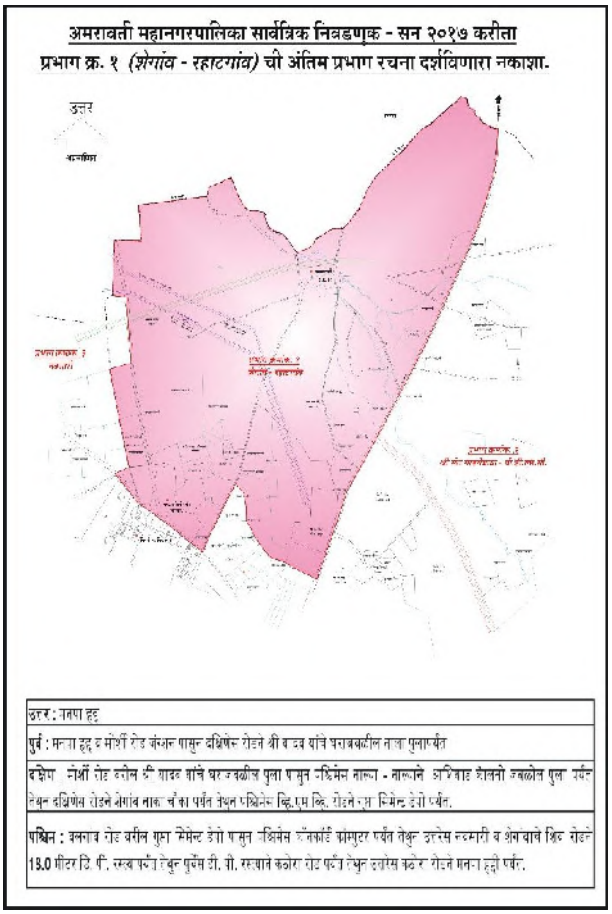
2.5. Land use plan / Ward Map

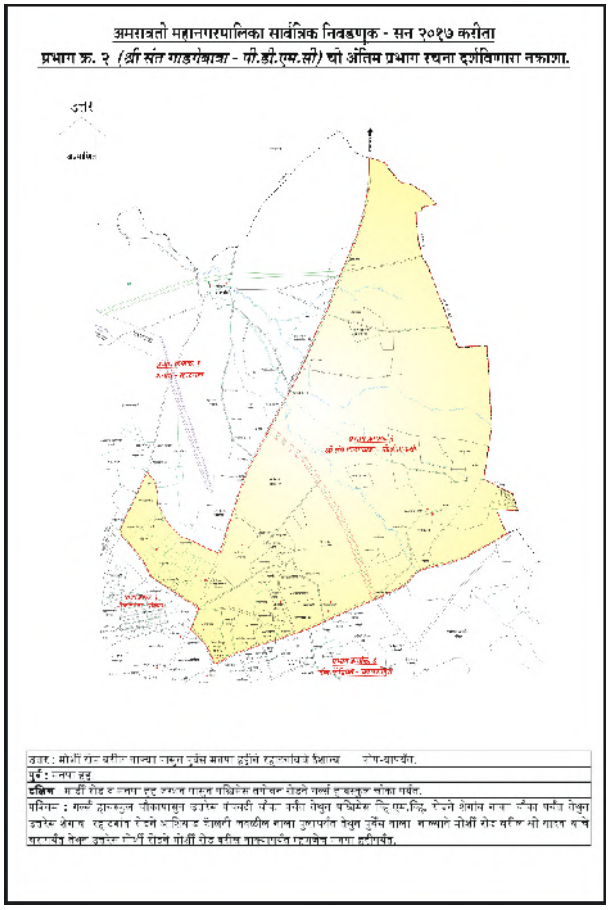
The ward map provided by the Urban Local Body. However, the correctness of the Map is to be verified by the Urban Local Body.

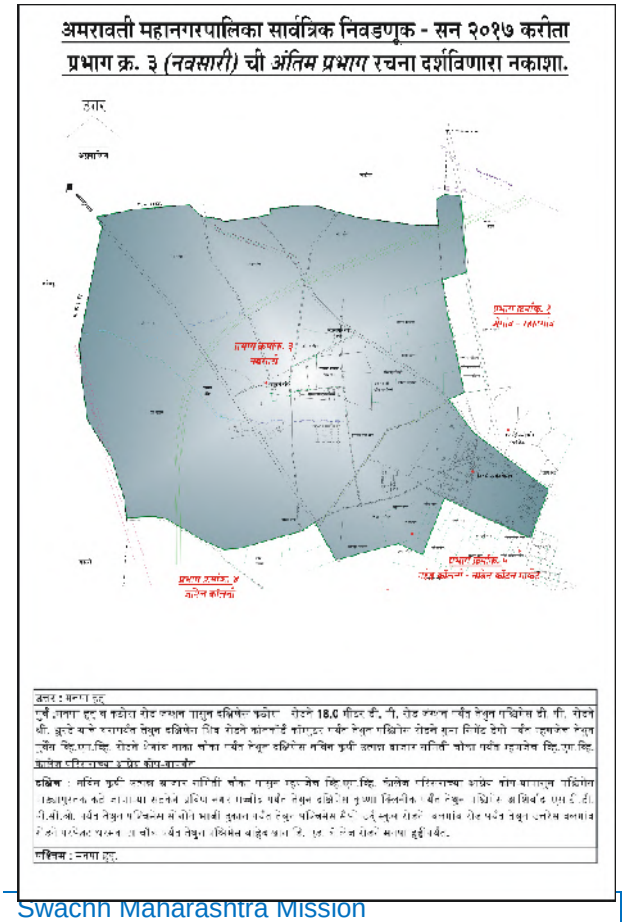
1. Ward Wise Map (Amravati Municipal Corporation)

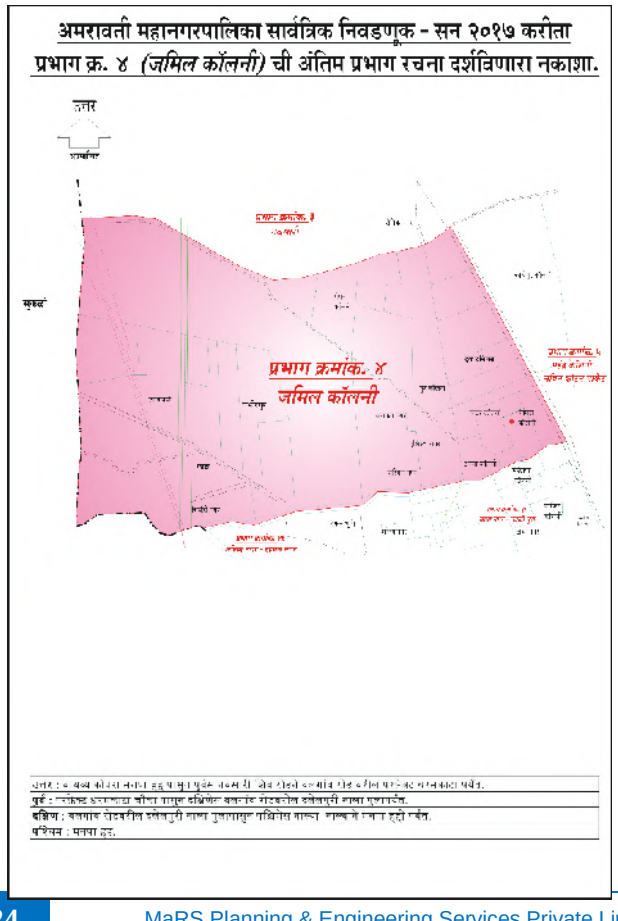

अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
प्रभाग क्र. १ ते २२ ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.
खुलासा :-
अमरावती महानगरपालिका हद्द.
न. न. पा. निवडणूक वार्ड.
रस्ते / मुख्य रस्ते.
शहरांतील उप रस्ते
रेल्वे लाईन
अमरावती - नरखेड रेल्वे लाईन
राष्ट्रीय महामार्ग क्र. ६ (दुतर्फी महामार्ग).
तलाव / नाले
ग्रामीण हद्द.

2. Boundaries of Various Ward

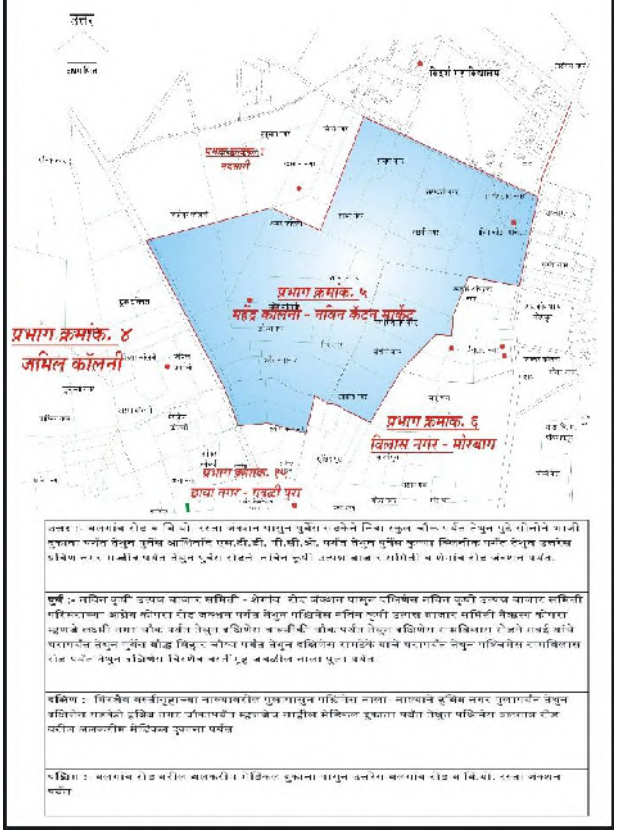




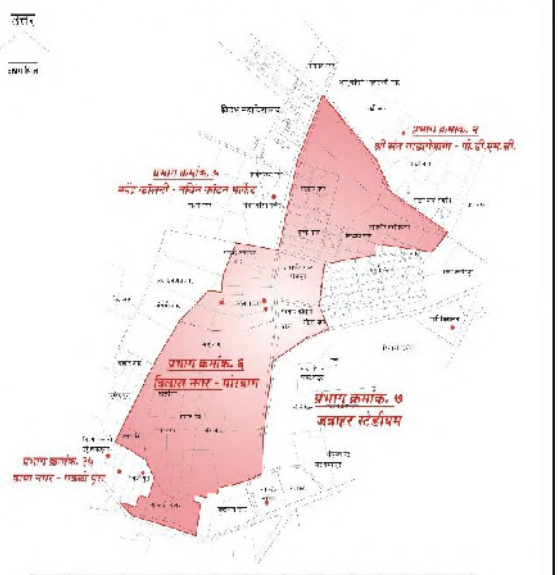




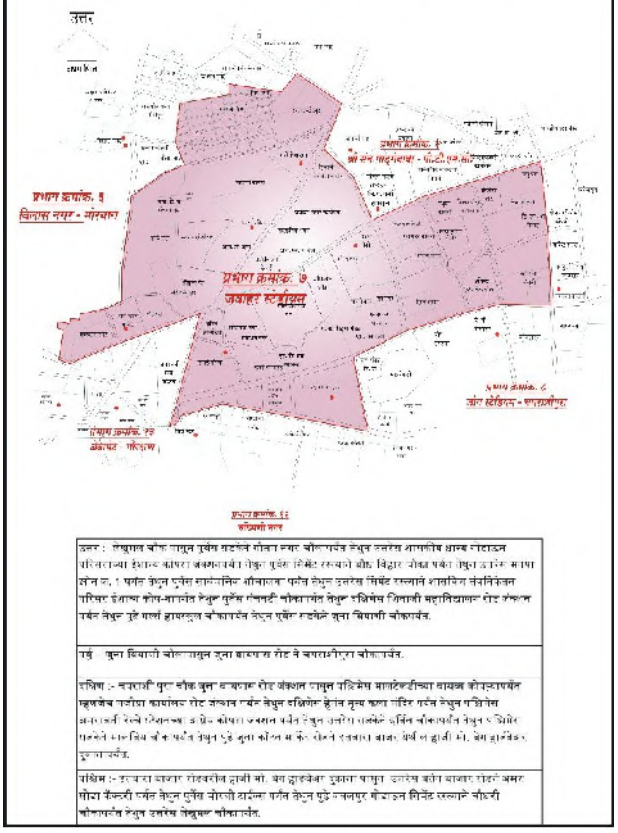
अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
प्रभाग क्र. ५ *(महेंद्र कॉलनी - नविन कॉटन मार्केट)* ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.



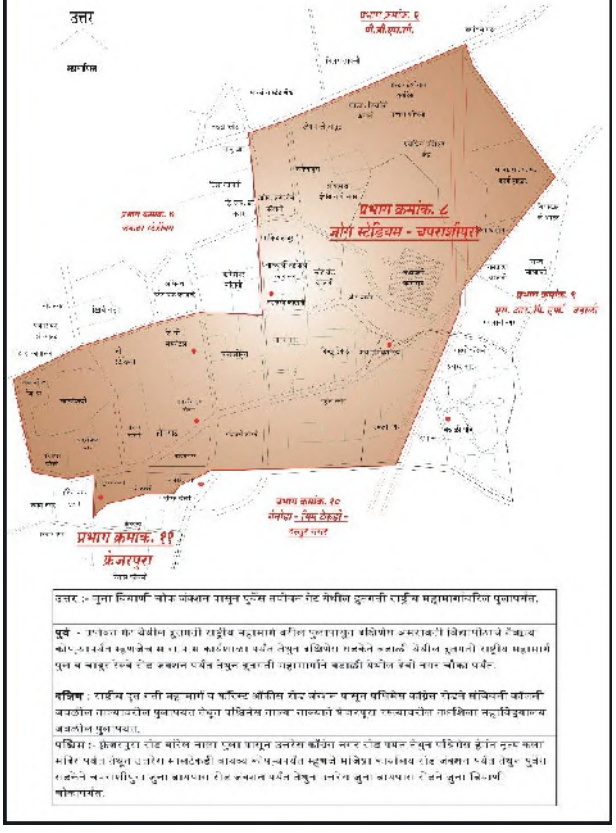
अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
प्रभाग क्र. ६ (विलास नगर - मोरबाग) ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.



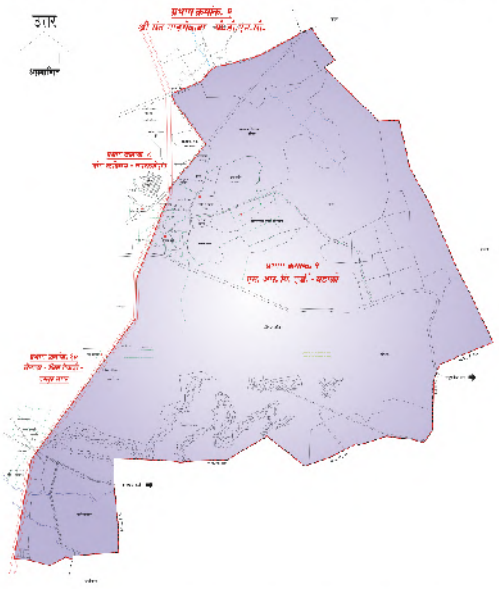
अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
प्रभाग क्र. ७ *(जवाहर स्टेडीयम)* ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.



अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
प्रभाग क्र. ८ *(जोग स्टेडीयम - उपराशीपुरा)* ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.

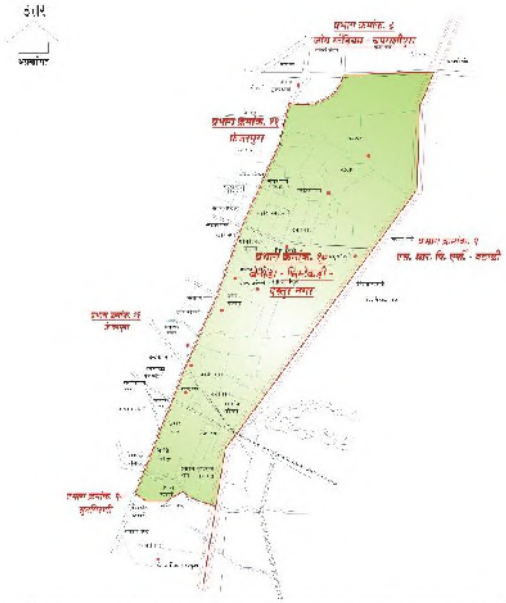


अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
प्रभाग क्र. ९ *(एस.आर.पी.एफ. - वडाळी)* ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.



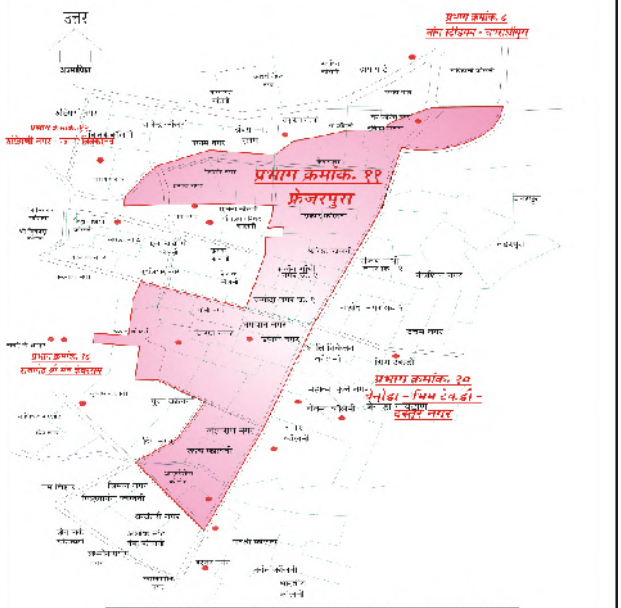
उत्तर - तपोवन गेट येथील द्रुतगती राष्ट्रीय महामार्ग पुलापासुन पुर्वेस गार्डी रोडवरील वानखडे घर पर्यंत
पुर्व :- वानखडे घर.
दक्षिण : मनता हद्दीपासून ते वेस्ट एन्ड आग्नेय कोपऱ्यापर्यंत तेथुन पश्चिमेस द्रुतगती राष्ट्रीय महामार्गापर्यंत.
पश्चिम :- द्रुतगती राष्ट्रीय महामार्ग व छावीलाल बैरागी कोपऱ्यापासुन उत्तरेस द्रुतगती राष्ट्रीय महामार्ग ते चांदुर रेल्वे रोड जंक्शन पर्यंत तेथुन पुर्वेस रस्त्याने म.रा.प्रा.प.म. कार्यशाळा रोडने तपोवन द्रुतगती महामार्ग गुरुनानगर.

अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
प्रभाग क्र. १० *(बेनोडा - भिम टेकडी - दस्तुर)* चे अंतिम प्रभाग रचना दर्शविणारा नकाशा.



उत्तर :- पंचवटी मंदीर चौक (व मेरी पोलिस आशियाना चौक) पासुन पुर्वेस पी.आर.ओ.एस रोड ते राष्ट्रीय द्रुतगती महामार्ग पर्यंत.
पुर्व :- पी.आर.ओ.एस रोड व राष्ट्रीय द्रुतगती महामार्ग जंक्शन पासुन दक्षिणेस राष्ट्रीय द्रुतगती महामार्गाने कालापार्की नाल्यापर्यंत
दक्षिण :- राष्ट्रीय द्रुतगती महामार्ग व कन्यागाणी नाला पासुन पश्चिमेस नाल्या नाल्याने जैवत बैरागी यांच्या पुलापर्यंत महाजेष भी तिवारी यांचे घरापर्यंत तेथुन पश्चिमेस सैनिक नगर रोडने जुना बायपास पर्यंत.
पश्चिम :- सिमीकाना व सरस्वती विद्यालय रोड जंक्शन पासुन उत्तरेस गंगासती मंदिर चौक (ताकिण पोल्ट्री आशियाना चौक) पर्यंत.

अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
प्रभाग क्र. ११ *(फ्रेजरपुरा)* ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.



उत्तर :- रेल्वे क्रॉ व वॉशिंग नगर रोड जंक्शन पासुन पुर्वेस कॉशिंग नगर रोडने फ्रेजरपुरा रोड जंक्शन पर्यंत.
पुर्व :- कॉशिंग नगर रोड व फ्रेजरपुरा रोड जंक्शन पासुन दक्षिणेस तहसिला महाविद्यालय जवळील पुलापर्यंत तेथुन पश्चिमेस अंबा नाला – नाल्याने शहा नगर नाला जंक्शन पर्यंत म्हणजेच जेक अंन्ड जिल शाळेच्या वैऋत्य कोपऱ्यापर्यंत तेथुन पुर्वेस शहा नगर छोट्या नाल्याने शहा नगर मुख्य रस्त्यावरील पुलापर्यंत तेथुन तुटे पुर्वेस नाल्याने सिद्धार्थ क्रीडा मंडळाचे जवळील पुलापर्यंत तेथुन दक्षिणेस मंडळाने क्रीडा मंडळाने आग्नेय कोपऱ्या पर्यंत तेथुन पश्चिमेस मैदानाचे दक्षिण हद्दीने श्रीमती नंदाताई गिरी यांचे पराजवळील बाऊंड्री वॉलपर्यंत तेथुन दक्षिणेस नालीने हेन्ड पंप पर्यंत व पुढे दक्षिणेस प्रवास गार्डी कारखाना पर्यंत म्हणजेच यशोदा नगर रोड पर्यंत. .
दक्षिण :- यशोदा नगर रोड वरील प्रवास गार्डी कारखाना पासुन पश्चिमेस सहानिने बापटवाडी जवळील सार्वजनिक शौचालय जवळील नाला पर्यंत तेथुन उत्तरेस छोट्या नाल्याने मातंग पुरा वेअरील पुलापर्यंत तेथुन पश्चिमेस बेलपुरा मुख्य रस्त्याने न्यु हायस्कुल (बेलपुरा) शालेच्या पुलापर्यंत तेथुन पश्चिमेस अंबा नाल्याने रेल्वेच्या पुर्व हद्दीपर्यंत.
पश्चिम :- अंबा नाल्यावरील रेल्वे पुलापासुन उत्तरेस रेल्वे पुर्व हद्दीने कॉशिंग नगर रोड जंक्शनपर्यंत.

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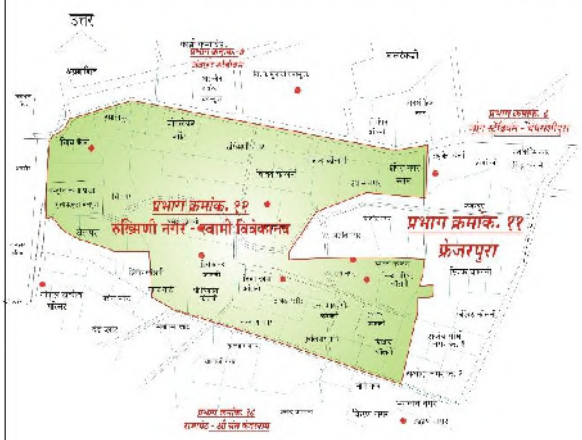

अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता
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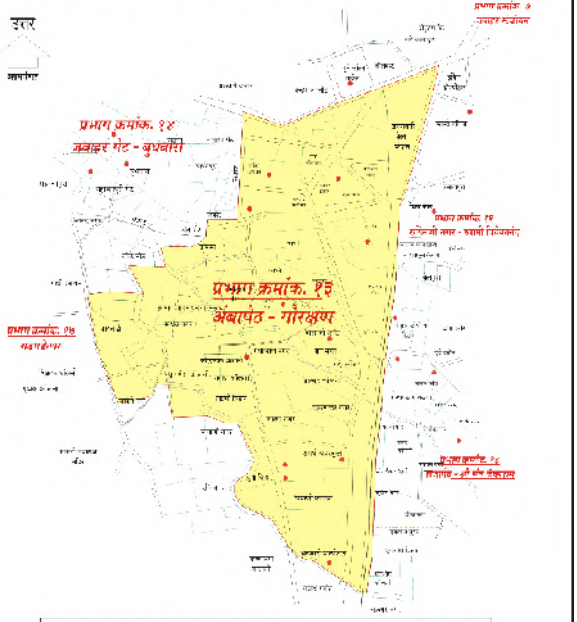

उत्तर : इरविन चौक ते (डॅम्सर्ल रोड पिल) दुकानापासुन पुर्वेस मिल्स कॉलनी रोडने अमरावती रेल्वे स्टेशन एरीयर ईदगाह कॉलनी पर्यंत.
पुर्व : अमरावती रेल्वे स्टेशन एरीयर ईदगाह कॉलनी पासुन दक्षिणेस रेल्वे लिंय व वाहतुक नगर रोड क्रॉसपर्यंत तेथुन पश्चिमेस रेल्वे लाईन दक्षिणेस रेल्वेलाईन पुर्व इंडीने तबाखे अंडर पास ब्रिजपर्यंत.
दक्षिण : नवाले अंडर पास ब्रिजपासुन पश्चिमेस नाला - नव्याने छापानगर जवळील नाल्यावरील पुलापर्यंत तेथुन पश्चिमेस 12.0 मीटर प्रस्तावित वि. यो. रस्त्याने छापानगर मुख्य रस्त्यापर्यंत तेथुन उत्तरेस रोडने लोअर पुलापर्यंत तेथुन पश्चिमेस मारोती नगर व देवाई लेआउट मार्गाने रस्त्याने महालक्ष्मी गेट वीरवाट रस्त्यापर्यंत.
पश्चिम : महालक्ष्मी गेट वीरवाट रस्त्यापासुन उत्तरेस रोडने गाडी अड्डा पुल ओ पी एच पुलापर्यंत तेथुन एनर्जी वॉटरहर्ट कंपनी मिनेने ड्रेनालाला जंक्शन पर्यंत तेथुन पुर्वेस सहकेने रामकृष्ण टिंबालच्या उत्तरेकडील मिनेने औरंगपुरा रोडने अंबापेठ आरेय बुधवारपर्यंत तेथुन उत्तरेस अंबापेठ व्यायाचे लगत उत्तरेकडील बुधवारपेठ तेथुन पुर्वेस नाली जोड बुधवारपेठ तेथुन उत्तरेस सर्वेक्षण दुकानापर्यंत बाजारा चौक (डॅम्सर्ल गेट पिल) दुकानापर्यंत.

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उत्तर :- तारखेडा रुफिल बुरजा पासुन पुर्वेस सफिलने मैव्यव खिडकी बुरजापर्यंत म्हणजे टांगा पडाव बुरजापर्यंत.
पुर्व :- मैव्यव खिडकी बुरजापासुन म्हणजे टांगा पडाव बुरजापासुन दक्षिणेस सफिलने अंबापेठ पर्यंत तेथुन दक्षिणेस सफिलने औरंगपुरा बुरजापर्यंत.
दक्षिण :- औरंगपुरा बुरजापासुन पश्चिमेस सफिलने भातकुली रोड वरिल पटेल बुरजापर्यंत.
पश्चिम :- भातकुली रोड वरिल पटेल बुरजापासुन उत्तरेस सफिलने खोलापुरी गेट पर्यंत तेथुन पुढे उत्तरेस सफिलने तारखेडा सफिल बुरजापर्यंत.

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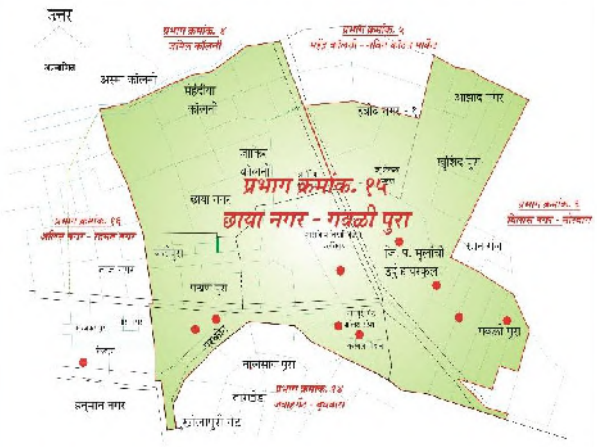

उत्तर :- अस्मा कॉलनी दलेलपुरी नाला पुलापासुन दलेलपुरी नाला नाल्याने वलगांव रोड वरील पुलापर्यंत तेथुन दक्षिणेस वलगांव रस्त्याने हबीब नगर येथील जमा करीम मेडीकल दुकानापर्यंत तेथुन पुर्वेस रोडने माईल मेडीकल दुकानापर्यंत तेथुन उत्तरेस हबीब नगर नाल्यावरील पुलापर्यंत तेथुन नाल्याने पुर्वेस खिरकैद खातीगृहा जवळील पुलापर्यंत.
पुर्व:- खिरकैद खातीगृहा जवळील नाल्यावरील पुलापासुन दक्षिणेस सहकेने सुरफैद पुरा चौका पर्यंत तेथुन पुर्वेस कडवी बाजार चौका पुन्हा दक्षिणेस चौकी पर्यंत तेथुन दक्षिणेस बोहरा कब्रस्तान रोडने साहू केलवी नर्सी कुमकुम प्रॉपर्टी रोड जंक्शन पर्यंत तेथुन पश्चिमेस रोडने कुमकुम प्रॉपर्टीच्या नाला कॉर्नर पर्यंत तेथुन दक्षिणेस सहकेने लाल गुडस् गॅरेज पर्यंत तेथुन पश्चिमेस चांदणी चौक दर्गा पर्यंत तेथुन पुर्वेस वलगांव रोडने छत्रपुरी खिडकी पर्यंत.
दक्षिण :- छत्रपुरी खिडकी पासुन पश्चिमेस सफील ते खोलापुरी गेट पर्यंत.
पश्चिम :- खोलापुरी गेट पासुन पश्चिमेस खोलापुरी पोलीस स्टेशन चौक पर्यंत तेथुन उत्तरेस भातकुली रोडने नागराज जार चौका पर्यंत तेथुन उत्तरेस मिल्केट रोडने वालखडी रोड वरील तार कंपा चौका पर्यंत तेथुन उत्तरेस रोडने अस्मा कॉलनी येथील दलेलपुरी नाल्यावरील पुला पर्यंत.

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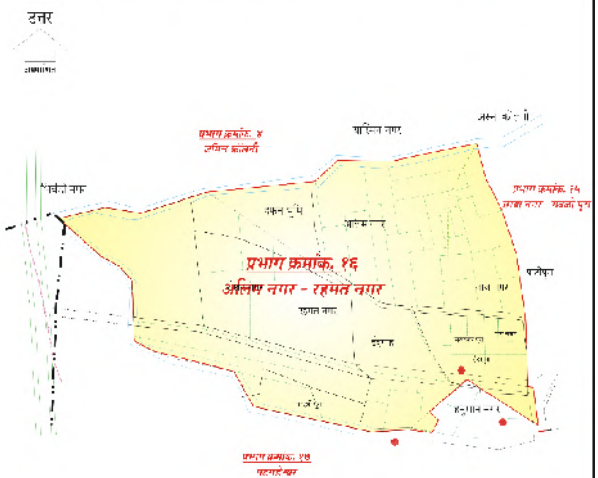

उत्तर :- मा.न.पा. हद्दी जवळील दलेलपुरी नाला व अंबा नाला जंक्शन पासुन पुर्वेस दलेलपुरी नाल्याने अस्मा कॉलनी पुला पर्यंत.
पुर्व :- अस्मा कॉलनी पुलापासुन दक्षिणेस सहकेने नार संघा कॉलनी पर्यंत तेथुन पुढे नारा बाजार चौक पर्यंत तेथुन दक्षिणेस भातकुली रोडने खोलापुरी गेट पोलीस स्टेशन पर्यंत.
दक्षिण :- खोलापुरी गेट पोलीस स्टेशन पासुन पश्चिमेस सुकळी रोड वरिल बावर चौका पर्यंत तेथुन दक्षिणेस सहकेने नाउली किराना दुकान चौकापर्यंत तेथुन पुर्वेस रोडने श्री दोडके यांचे घरापर्यंत तेथुन दक्षिणेस श्री प्रशांत डोडके यांचे घरापर्यंत तेथुन पश्चिमेस टालटी बनारसी रोडने अंबा नाल्या वरील पुला पर्यंत तेथुन अंबा नाल्याने पश्चिमेस ननपा हद्दी पर्यंत म्हणजेच अंबा नाला व दलेलपुरी नाला जंक्शन पर्यंत
पश्चिम :- अंबा नाला व दलेलपुरी नाला जंक्शन

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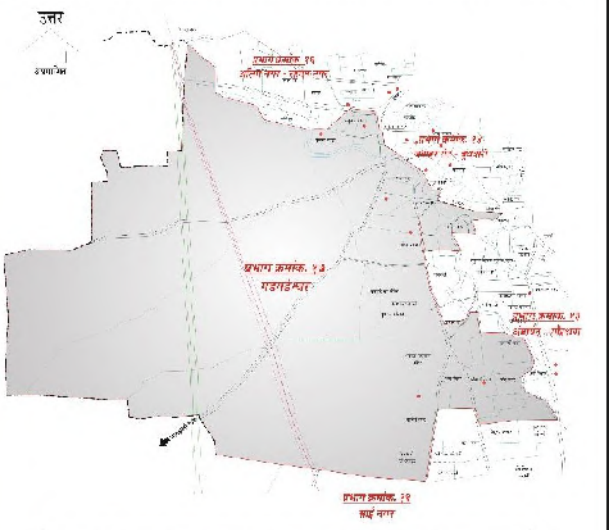

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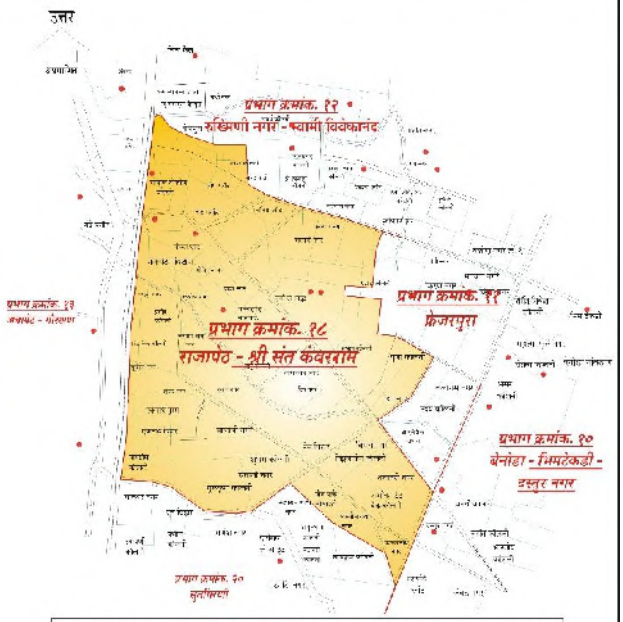
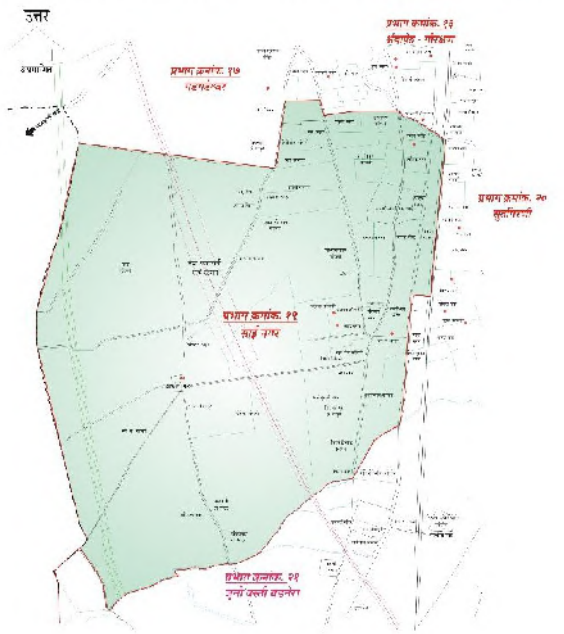
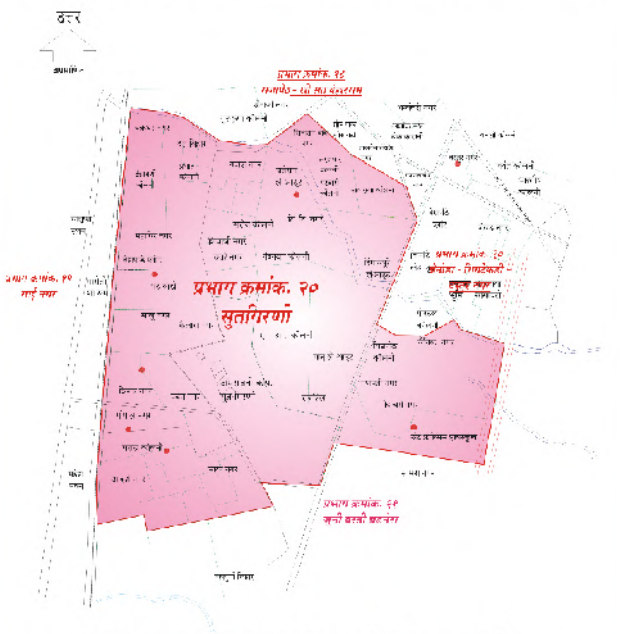
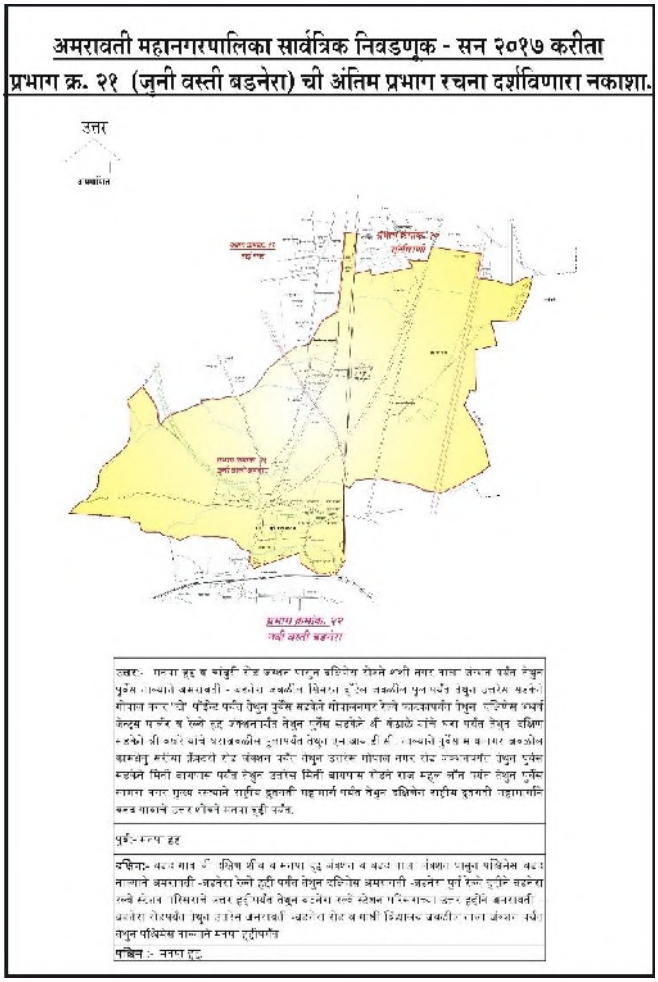


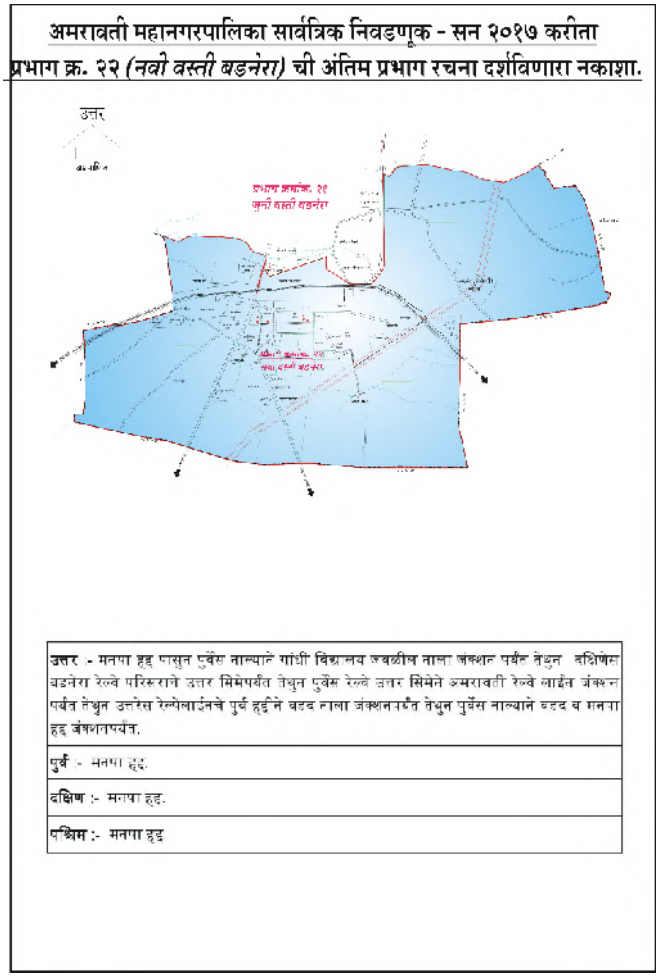
अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता प्रभाग क्र. १९ *(साई नगर)* ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.



अमरावती महानगरपालिका सार्वत्रिक निवडणूक - सन २०१७ करीता प्रभाग क्र. २० *(सुतगिरणी)* ची अंतिम प्रभाग रचना दर्शविणारा नकाशा.







2.6. Physical infrastructure

2.6.1. Roads

Table shows the existing road condition and length in the town. The total road length in Town is 965 km. Out of the total road lengths, 87.56 % roads are more than 3.5 m wide, 12.44 % roads are less then 3.5 m wide. About 89.64 % roads are pucca roads and remaining 10.36 % are kutcha in nature. The following are the details of roads infrastructure existing in the town.

Table 8: Existing Road Network

Sr. No.	Type of Road	Total length (in km)	Total Pucca Length (in km)	Total Kuccha Length (in km)
1	Roads more than 3.5 Meter Wide	845	780	65
2	Roads less than 3.5 Meter Wide	120	85	35
Total		965	865	100
Source: Census of India				

2.6.2. Water Supply System

The ULB currently produces total 96.7 MLD water. Out of the total water produced, 0 MLD water comes from Ground water sources (0%) and 96.7 MLD water comes from Surface water sources (100 %). 100 % of the total produced water is treated daily. The total water storage capacity existing in the ULB as per the records is 95 MLD. Overall, there are total 87614 water connections in the town. 99 % of the Municipal Area is supplied by piped network. Table below provides an overview of the status of water supply system in the town.

Table 9: Overview of exiting Water Supply System

Parameters	Existing Status
1. Total water produced by Ground water sources (MLD)	0
2. Total water produced by Surface water sources (MLD)	96.7
3. Average daily volume treated (MLD)	96.7
4. Installed storage capacity (MLD)	95
5. Total water connections (Nos.)	87614
6. Water connections in slums (Nos.)	11539
7. Area covered by network (sq.km.)	121
8. No. of days of supply in a month	30
Source: Urban Local Body	

2.6.3. Sewage Management System

Town doesn't have underground sewerage system. There is no continuous network due to encroachment and illegal constructions over the roads. At present the waste water from bathrooms and kitchens from HHs is disposed off into open drains or fields in front of houses. The sullage/sewage is being disposed into nearby open drains at various locations in the town without any treatment.

98.28 Sq. Km of the municipal area is covered by drainage network. Majorly the coverage of drainage network is dominated by open drains (76 %), followed by Closed Drains (2 %) Underground sewerage network (21 %).Table below provides an overview of the status of Waste water / sewage management in the town.

Table 10: Overview of exiting Sewage management system	
Parameters	**Existing Status**
1. Area covered by Underground sewerage network (sq.km)	20.87
2. Area covered by Closed drains (sq.km)	2.44
3. Area covered by Open drains (sq.km)	74.97
4. Total sewerage connections (Nos.)	662
5. Sewerage connections in slums (Nos.)	-
6. Installed STP treatment capacity (MLD)	61
Source: Urban Local Body	

2.6.4. Storm Water Management System

There is no dedicated storm water management system exists in the town. The storm water drainage system in the town comprises of mainly tertiary drains. The hierarchy between primary, secondary and tertiary drains at various locations is blocked by waste disposal. The storm water drains need to be strengthened by separating the sanitation, sewerage and drainage aspects, which are currently intermixed. The total drain Length existing in the town is about 1580 Kms. Out of the total existing drain, 1350 Kms (85 %) consists of primary drains , 170 Kms (11 %) consist of secondary Drains and 60 Kms (4 %) consists of tertiary drains. 20 % of the total drains are pucca in nature while the rest are kutcha. Table below details out the total drains existing in the town with different hierarchy.

Table 11: Details of Existing Drains				
No.	**Type of Drain**	**Total length (in km)**	**Total Pucca Length (in km)**	**Total Kutcha Length (in km)**
i.	Primary Drains	1350	150	6.5
ii.	Secondary Drains	170	120	103.2
iii.	Tertiary Drains	60	50	58
Total		**1580**	**320**	**1260**
Source: Urban Local Body				

2.6.5. Electricity

The main source of electricity in Amravati town is MSEDCL which covers 90% of municipal area but it serves almost hundred percent of the population. The connection of electricity is good in terms of service reach. The town is provided almost 23-24 hours of supply although during peak season time of power is cut off for load shedding.

2.7. Urban Economy

Overall, the town exhibits a middle-class economy.

2.8. Information about ULB

Town is governed by the Maharashtra Municipal Council, Nagar Panchayat and Industrial Township (MMCNPIT) Act, 1965. Section 4 of the Act categorises the municipal councils based on its population. Amravati is 'Class D-Municipal Corporation category' ULB having Population more than 300000. The structure of the ULBs consists of two Wings i.e., the Deliberative Wing and the Executive Wing.

2.8.1. Political Setup

The ULB of Amravati divided into 22 words for administrative purposes. Three nagarsevaks are elected to the Council from each ward. The Council is led by the President (Nagaradhyaksha) elected by the nagarsevaks from amongst themselves. The Council, through the President, the advisory committees for different departments and consultative committees appointed by the General Body, is responsible for the administration of the town. The details are given in the Table below.

2.8.2. Administrative Setup of ULB

The Commissioner, who is also the executive head of the ULB, heads the administrative Wing. A chief officer, along with officers like an engineer, sanitary inspector, health officer and education officer who come from the state public service are appointed by the state government to control the administrative affairs of the Nagar Palika.

Table 12: Existing manpower of ULB

No.	Department	Total Sanctioned Post	Total Filled Post	Total Vacant Post	Daily Wage Labour	Total
1	Administration Department	734	576	113	25	1448
2	Engineering Department	489	384	95	10	978
3	Revenue Department	367	287	66	14	734
4	Public Health Department	856	799	27	30	1712

Source: Urban Local Body

Various departments under the ULB, share the responsibility of service delivery within the ULB. The functions of various officials/departments, under the Administrative wing, are elucidated hereunder:
(i) Commissioner. The Commissioner is at the apex of this structure and is responsible for all activities carried out by the ULB. The Commissioner is responsible for preparation and certification of all periodical records, returns and furnishes all information as may from time to time be required by the Municipal Council or the Standing committees. He is also responsible for preparation of accounts. At each general meeting, the Commissioner along with some other key officials, discuss various issues with the elected representatives.

(ii) General Administration Department. This department is responsible for establishment, other essential matters relating to office, officers, staff and their welfare like preparation of staff pay bills, registration of birth and death certificates, etc.

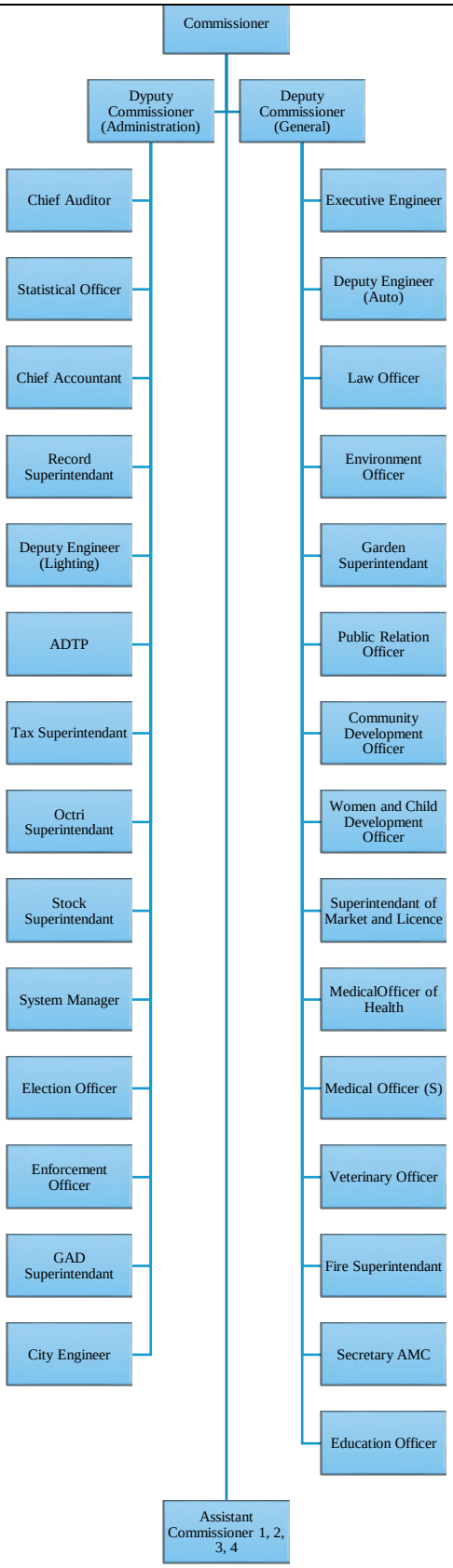
(iii) Engineering Department. Engineer heads the Engineering Section and is assisted by assistant engineers, junior engineers and other staff. This department looks after all the works relating to execution and maintenance of basic amenities like water supply, storm water drains, internal roads, street lights, etc. The Engineering department is also responsible for ensuring the quality of works and their execution within the time frame.

(iv) Revenue and Accounts Department. The department is headed by the CMO and assisted by Accounts officers, Revenue Officers, and other officers. The Accounts Section is responsible for supervising all financial transactions related to the ULB, advising the Commissioner on all internal financial matters,

updating financial receipts and expenditure details in accordance with the utilization of funds, reporting deviations in expenditure of funds in any of the allocated schemes, assisting preparation of the budget, maintenance of accounts regarding stamp duty, SFC Grants, MP Grants, maintenance of petty cash book and general cash book and attending to audit requirements and other such accounts-related duties. Revenue Officer, heading the Revenue Section, is responsible for collecting taxes such as, trade tax, house tax, advertisement tax, and entertainment tax; collection of duty; issuing notices for recovery of tax; and monitoring revenue collections of the ULB.

(v) Health Department. The department is headed by Municipal Health Officer, and is responsible for ULB services such as solid waste management, public health related works like malaria control, family planning, mother and child health care, etc, and other government assisted programs related to health and poverty reduction and awareness programs. The Municipal Health Officer assisted by the Sanitary Inspectors, is responsible for services of solid waste management and Malaria Control activities. Junior officers are in-charge of works execution at the field level, which includes monitoring and supervising the work of sanitary labourers in the wards under their charge and attending to specific local complaints. Besides, this department is responsible for the enforcement of the Public Health Act. The department is also involved in promotion of health awareness programs and implements various State and Central assisted schemes like pulse polio project, SJSRY etc.

Administrative structure of Amravati Municipal Corporation



2.8.3. Financial Status of ULB

Section 101 of the Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships Act, 1965 mandates all municipal councils in the state to make provision for expenditure through their budget and maintain accounts of their receipts and expenditure. The ULB follows a cash-based accounting system. It maintains a consolidated budget that has three parts: revenue, capital and extra-ordinary accounts. No separate budget is maintained for services such as water supply, sanitation and solid waste management. Thus, it was necessary to recast these budgets to properly analyse revenue and expenditure from services.

Table 13: Summary of Municipal Finance

Details.	2013	2014	2015	2016	2017
OPENING BALANCE	-1720000	25480000	13700000	19910000	32680000
REVENUE ACCOUNT					
1. Revenue Receipts	161800000	166000000	208710000	440100000	391670000
2. Revenue Expenditure	168110000	191480000	222410000	460010000	424350000
CAPITAL ACCOUNT					
3. Capital Receipts	186600000	61720000	141800000	442970000	250060000
4. Capital Expenditure	242860000	231320000	186780000	543420000	377840000
EXTRA-ORDINARY ACCOUNT					
5. Extraordinary Receipts	5300000	6180000	10110000	8830000	13850000
6.Extraordinary Expenditure	9170000	7830000	15960000	174700000	22490000
SUMMARY					
7.TOTAL RECEIPTS	353700000	233900000	360620000	891900000	655580000
8.TOTAL EXPENDITURE	420140000	430630000	425150000	1178130000	824680000
9.CLOSING BALANCE	25480000	13700000	19910000	32680000	32680000

Note: Amounts in Rs.
Source: Budget books of the ULB.

The following analysis can be drawn for from the table above.

Table 14: Analysis of Municipal Finance

Details.	Parameter.	2013	2014	2015	2016	2017
PER CAPITA* INCOME	1.Revenue Receipts	22552345.69	23137758.87	29090853.34	61342937.83	54592566.37
	2.Capital Receipts	26009071.12	8602786.01	19764663.9	61742970.16	34854385.44
	3.Extraordinary Receipts	738735.67	861393.67	1409173.15	1230761.51	1930469.64
	4.Total Receipts	49300152.49	32601938.55	50264690.39	124316669.5	91377421.45
PER CAPITA* EXPENDITURE	5.Revenue Expenditure	23431859.3	26689265.47	31000415.36	64118075.05	59147638.42
	6.Capital Expenditure	33850820	32242327.6	26034160.25	75744101.96	52664884.41
	7.Extraordinary Expenditure	1278152.1	1091377.42	2224570.07	24350400.45	3134748.17
	8.Total Expenditure	58560831.4	60022970.5	59259145.69	164212577.46	114947271
SUPLUS / DEFICIT ACCOUNTS	9.Revenue Account	-6310000	-25480000	-13700000	-19910000	-32680000
	10.Capital Account	-56260000	-169600000	-44980000	-100450000	-127780000
	11.Extra-ordinary Account	-3870000	-1650000	-5850000	-165870000	-8640000
	12.Overall	-66440000	-196730000	-64530000	-286230000	-169100000

Table 14: Analysis of Municipal Finance						
Details.	**Parameter.**	**2013**	**2014**	**2015**	**2016**	**2017**
	Account					
OTHER PARAMETERS	13.Operating Ratio	1.04	1.15	1.07	1.05	1.08
	14.Capital Utilisation Ratio	1.3	3.75	1.32	1.23	1.51
Source: Analysis by the consultant *As per 2011 Census Population						

2.8.4. Financial Status on WATSAN services

The following analysis are drawn for the financial status of WATSAN services i.e. water supply, sewerage and Solid Waste Management services provided by the Urban Local Body.

Table 15: Summary of Financial Status of WATSAN Services				
Service Type	**Details**	**Amount (in Rs.)**	**Per Capita* Income (in Rs.)**	**Per Capita* Expenditure (in Rs.)**
[A] Water Supply	1.Revenue Receipts	370123000	515.89	NA
	2.Revenue Expenditure	259183000	NA	361.26
	3.Capital Expenditure	5833000	NA	8.13
[B] Waste Water Management	4.Revenue Receipts	22600000	31.5	NA
	5.Revenue Expenditure	182027000	NA	253.72
	6.Capital Expenditure	80000000	NA	111.51
[C] Solid Waste Management	7.Revenue Receipts	0	0	NA
	8.Revenue Expenditure	303926000	NA	423.62
	9.Capital Expenditure		NA	0
Source: Analysis by the consultant *As per 2011 Census Population				

3. Status of Existing SWM in the ULB

A total of about 800 Samples (0.11% of the Total Population) Samples (45% From Slum/ LIG,25% From MIG/ HIG,20% From Commercial establishments which includes institutional generators; hospitals and health care establishments; small and medium-sized enterprises; hotels; function halls; vegetable markets; sports complexes or facilities; places of worship (temples, mosques, etc.); ,10% At Dumpsite) were collected to determine the Waste Generation, Waste Composition, Physical-Chemical Characteristics of MSW. The sampling exercise were done in accordance with the standard procedure mentioned in the CPHHEO Manual.

3.1.Existing Waste Generation

3.1.1. Approach Adopted For Estimation Of Waste Generation

The main solid waste generation sources are residential, commercial and market, slum, slaughterhouses, institutional organization like hospitals, hotels and restaurants, small and big scale industries, construction and demolition waste (debris) etc. but their quantity and quality data were not available with the Municipal authorities. Therefore, following approach was adopted for estimation of waste generation.

- Select at least representative sampling locations which represents households of low, mid, and high-income levels; commercial establishments; institutional generators; hospitals and health care establishments; small and medium-sized enterprises; hotels; function halls; vegetable markets; sports complexes or facilities; places of worship (temples, mosques, etc.); and other significant representative groups.
- Storage bags sufficient for 3–7 days can be distributed to each waste generator who is advised to deposit all waste generated daily in the given bag which is to be handed over to the specified waste collector on the subsequent day in the morning; the bags so distributed may be collected daily for a minimum of 1–2 days continuously and weighed immediately after collection using a sensitive weighing machine.
- Record was kept of the waste generated by different categories of waste generators.
- The waste collected from each category was thereafter mixed category wise and segregated component-wise, and each component was weighed separately to arrive at the waste composition in different categories of waste generators.
- This representative waste quantity and quality when extrapolated to the entire ULB and divided by the population will give the per capita waste generation rates.

3.1.2. Existing Waste Generation (based on actual sample survey)

It has been estimated that average waste generation from the ULB is approximately 396 Grams per capita per Day. According to Municipal Solid Waste (Management & Handling) Rules 2000, clause 3.3.6.2 (p.no. 49) for purposes of project identification, where an indication of service level must be estimated and data from the project preparation stage have not yet been developed, the municipal refuse generation rates are suggested as for a residential waste of 0.3 to 0.6 kg/cap/day, commercial waste is 0.1 to 0.2 kg/cap/day (i.e. approximately 30% of residential waste) and street sweeping is 0.05 to 0.2 kg/cap/day (i.e. approximately 20% of residential waste). Using the suggested data the following is the existing waste generation based on actual sample survey conducted by the consultant

Table 16: Existing Waste Generation based on actual sample survey

No.	Category	Average Weight per Capita per Day (in Gram)
1	Residential	246
2	Commercial & Institutional	100
3	Road Sweeping	50
4	Total Waste Generation	396

Source: Analysis by the consultant

*Important Note:- Assumed Weight per Capita per Day=400 Grams per Capita per Day

3.2. Composition & Physicochemical Characteristic of MSW

3.2.1. Approach Adopted For Estimation of Waste Composition & Physicochemical Characteristic of MSW

MSW composition and characteristics vary considerably, not only between cities but also within a ULB; daily, seasonal, and temporal fluctuations are usually observed. MSW is heterogeneous in nature and consists of varied waste fractions, requiring multiple samples at multiple locations.

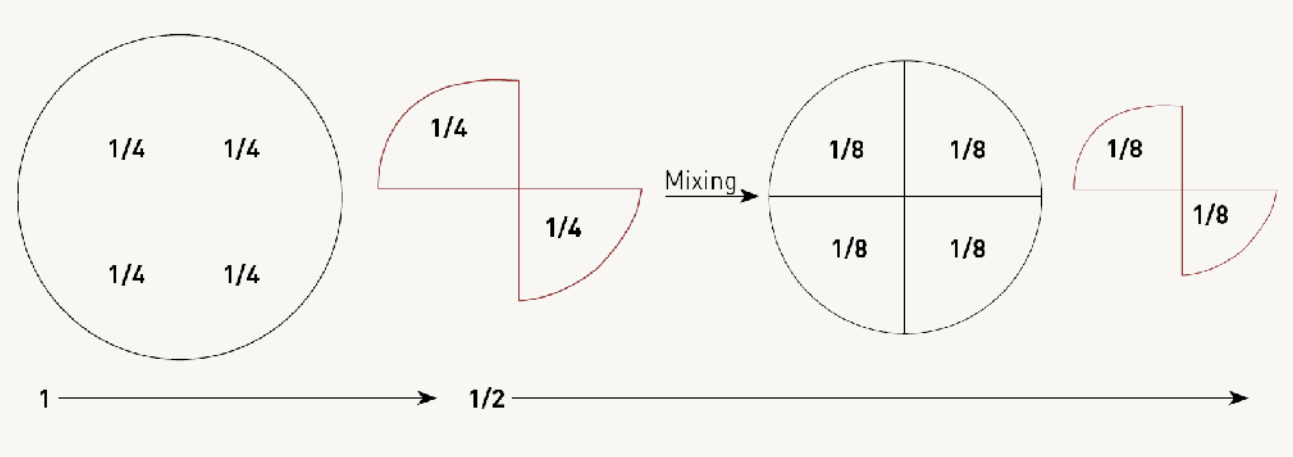
The quartering and coning method (Figure below) is one of the best techniques for determining the composition and characteristic ofmunicipal waste. The sample is reduced to a more manageable size asthe actual classification is carried out by hand.

Selection of sampling sites is a critical first step in this process. The following aspects shall be considered:

- Waste sampling sites and frequency of sampling shall be in accordance with guidance given in Previous section.
- The sample collection sites should be representative and include all major sources of waste generation including residential areas(including slums), commercial, business, and market areas (vegetable market, meat market, slaughterhouse, grain market, etc.).
- Sample sites should also be representative of all income groups within the ULB.

Quartering and Coning Sampling Procedure:

- Take 10 kg of municipal waste mixed from outside and inside of the waste pile, sourced from random entities in an identified sampling location.
- Samples from all heterogeneous sampling points shall be mixed thoroughly.
- The sample is placed as a uniform heap.
- The heap is divided into four portions using straight lines perpendicular to each other.
- Waste from opposing corners of the divided heap is removed to leave half of the original sample. The remaining portions are again thoroughly mixed and the quartering process is repeated until a desired size is obtained (10 kg of waste can be handled or segregated efficiently).
- The last remaining opposing fractions of waste shall be mixed and analysed for identifying physical and chemical properties of the waste.
- Chemical analysis of the waste sample follows the physical constituent analysis and shall be performed in a laboratory



Proportion of Waste Constituents: The size distribution of waste constituents in the waste stream is important because of its significance on the selection of appropriate collection, transportation, processing,

treatment, and disposal practices. The waste characterisation method mentioned above is followed to assess proportions of waste constituents.

3.2.2. Composition of MSW

The samples were analyzed for various physico-chemical parameters by using standard procedures by MARS Enviro Research & Engineering Services Pvt Ltd (NABL accredited Laboratory for Testing). The following results were obtained from the test undertaken.

Table 17: Average Waste Composition at Source and at Dumpsite

Type			Average at Source	At Dumpsite
Biodegradable	Green Waste and Kitchen Waste	%	44.65	27.08
Recyclable	Plastic, Polythene, Tetra Packs Etc	%	9.00	6.54
	Paper and Card Board	%	9.66	3.61
	Metal	%	0.12	0.23
	Glass	%	0.36	0.32
Non Biodegradable	Textiles	%	5.32	1.81
	Horticulture Waste & Wooden Piece	%	6.62	12.64
	Leather, Rubber Etc	%	0.17	0.14
Inert	Inert (Silt, Debris, Construction and Demolition Waste Etc)	%	24.10	47.66

Source: MARS Enviro Research & Engineering Services Pvt Ltd (NABL accredited Laboratory for Testing)

3.2.3. Physicochemical Characteristic of MSW

The following is the results of Physical and Chemical Characteristic of MSW.

Table 18: Physicochemical Characteristic of MSW

Type			Average at Source	At Dumpsite
Physical	Bulk Density	MT/ CuM	0.445	0.487
	Calorific Value	Kcal/Kg	1266.67	722.00
	Moisture	%	28.50	18.05
Chemical	PH	MT/ CuM	7.60	5.87
	Ash Content	%	23.12	55.05
	Total Volatile Content (LoI)	%	19.44	31.59
	Total Organic Carbon (ToC)	%	18.24	22.56
	Total Nitrogen	mg/kg	1.15	1.34
	Total Phosphates as P2O5	%	0.58	3.52
	Total Potassium as K2O	%	3.29	1.71
	C/N Ratio	%	16.15	15.34

Source: MARS Enviro Research & Engineering Services Pvt Ltd (NABL accredited Laboratory for Testing)

3.3. Existing Waste Generation

Currently Amravati generates about 291.74 MT waste Per Day. The table below shows existing and projected solid waste generation for the various years

Table 19: Existing & Projected Waste Generation

Details	Year 2018	Year 2023	Year 2028	Year 2033	Year 2038	Year 2043	Year 2048
Projected Waste Generation per Day (in MT)	291.74	315.85	340.46	365.57	391.17	417.28	443.89

Source: Analysis by the consultant on the basis of information provided by ULB.

3.3.1. Primary Waste Storage & Segregation

The SWM Rules, 2016 defines segregation as sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non-biodegradable wastes including recyclable waste, non- recyclable combustible waste, sanitary waste and non-recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes. Segregating waste at source ensures that waste is less contaminated and can be collected and transported for further processing. The following observation was summarised for Amravati with respect to Primary Waste Storage and Segregation at source.

- 70 % of the Residential Households practices storage of waste in domestic bins
- 78 % of the Non-residential premises uses commercial / institutional bins for primary storage of waste.
- 10 % residential household practices segregation of waste at source.
- 25 % non-residential household practices segregation of waste at source.

3.3.2. Street Sweeping and Drain Cleaning

Out of the total length of major roads (865 KMs) only 85 % roads (735.25 Kms) are swept with various frequencies. The table below shows existing details of street sweeping and drain cleaning.

Table 20: Details of Street Sweeping and Drain Cleaning	
Details	**Length of Roads Swept (in Kms)**
Daily	216.25
Once in two days	259.5
Once in a week	173
Once in two weeks	86.5
TOTAL	735.25
Source: Urban Local Body	

Other information and analysis of Street Sweeping and Drain Cleaning is summarised below on the basis of the information provided by the ULB and field visits undertaken by the consultant.

Table 21: Other Information & Analysis on Road Sweeping and Drain Cleaning		
No	**Details**	**Analysis**
1	Average Length of Road Swept daily with various frequency	376.89 Kms per day
2	Type of Sweeping	• Manual-100 % • Mechanical-0 %
3	Use of long handle broom used by sanitation workers	• 100% Use-(0 Kms)-0 % • Partial Use-(735.25 Kms)-100 % • No Use-(0 Kms)-0 %
4	Handcart/tricycle for collection of waste given to each sanitation workers	• 100% Given-(0 Kms)-0 % • Given to few-(735.25 Kms)-100 % • Not Given-(0 Kms)-0 %
5	Synchronisation of Collection tools with collection / waste storage containers utilized	• 100% Synchronisation-(0 Kms)-0 % • Partial Synchronisation-(735.25 Kms)-100 % • No Synchronisation-(0 Kms)-0 %
6	Agency undertaking Street Sweeping and Drain Cleaning	• ULB-(735.25 Kms)-100 % • Private-(0 Kms)-0 %

Source: Analysis by the consultant on the basis of information provided by ULB.

3.3.3. Secondary Waste Storage

Mainly the waste is stored into the community bins (300 Nos.) placed randomly at various unidentified places in the town. The table below shows existing baseline information on Secondary Waste Storage.

Table 22: Information of Community Bins

Sr No	Area of Container	Ward No	Name of Ward	Capacity
1	Yashoda Nagar Near Kali Mata Temple	11	Frezarpura	4.5 Cum
2	Infront Bhumiputra Colony Old Bypass	11	Frezarpura	4.5 Cum
3	Sanjay Ghandhi Nagar 1 Near Ingale House	11	Frezarpura	4.5 Cum
4	Kiran Nagar 1, Motha Nala	11	Frezarpura	4.5 Cum
5	Moti Nagar Near Punse House	11	Frezarpura	4.5 Cum
6	Farshi Stop, Near Ayurvedic Hospital	11	Frezarpura	4.5 Cum
7	Pariharpura Ground	9	SRPF	4.5 Cum
8	Near Shende Ration Shop, Bus Stop	9	SRPF	4.5 Cum
9	Near Premwal House, Pariharpura	9	SRPF	4.5 Cum
10	Near Chatur Bagade House, Devi Nagar	9	SRPF	4.5 Cum
11	Pardhipura Chandur Rly. Road	9	SRPF	4.5 Cum
12	Infront Of Dental College	9	SRPF	4.5 Cum
13	Giramkar Layout	9	SRPF	4.5 Cum
14	SRPF Old Corter	9	SRPF	4.5 Cum
15	SRPF AMC School	9	SRPF	4.5 Cum
16	Pariharpura Square	9	SRPF	4.5 Cum
17	SRPF Firing Range	9	SRPF	4.5 Cum
18	SRPF Hospital	9	SRPF	4.5 Cum
19	SRPF Shreshthata Park	9	SRPF	4.5 Cum
20	Infront Of SRPF Hospital	9	SRPF	4.5 Cum
21	AMC School No. 13, Marathi	8	Jog Stadium	4.5 Cum
22	Infront Of Police Chauki	8	Jog Stadium	4.5 Cum
23	Central Jail Kadu Sir	8	Jog Stadium	4.5 Cum
24	Near Hanuman Mandir, Central Jail	8	Jog Stadium	4.5 Cum
25	Andhvidhyalay	8	Jog Stadium	4.5 Cum
26	Haji Marg	8	Jog Stadium	4.5 Cum
27	Pankaj Shivneri Colony	8	Jog Stadium	4.5 Cum
28	Utkarsha Colony Inside	8	Jog Stadium	4.5 Cum
29	Infront Of Poster Colony	8	Jog Stadium	4.5 Cum
30	Inside Telicom Colony	8	Jog Stadium	4.5 Cum
31	Shukravar Bazaar	8	Jog Stadium	4.5 Cum
32	Mahendra Mahavidyalaya	8	Jog Stadium	4.5 Cum
33	Kamal Chaya	8	Jog Stadium	4.5 Cum
34	Laghuvetan Colony Near Drainage	8	Jog Stadium	4.5 Cum
35	Nandanvan Colony	8	Jog Stadium	4.5 Cum
36	Haji Marg	8	Jog Stadium	4.5 Cum
37	Gajanan Maharaj Temple, Rajashri Colony	10	Benoda	4.5 Cum
38	Gajanan Maharaj Temple, Rajashri Colony	10	Benoda	4.5 Cum

39	Jayant Colony	10	Benoda	4.5 Cum
40	New ganesh Colony	10	Benoda	4.5 Cum
41	Chhatri Talav Main Road	10	Benoda	4.5 Cum
42	Chaitanya Colony	10	Benoda	4.5 Cum
43	Chaitanya Colony	10	Benoda	4.5 Cum
44	Mankarna Nagar, Mungasaji Mauli	10	Benoda	4.5 Cum
45	Hole Patil, Benoda	10	Benoda	4.5 Cum
46	Benoda Mahila Lain	10	Benoda	4.5 Cum
47	Frezarpura Smashn Bhumi	10	Benoda	4.5 Cum
48	Rahemat nagar Ground	16	Alim nagar	4.5 Cum
49	Near Urdu School No. 3	15	Gawalipura	4.5 Cum
50	Pakija Colony	4	Jamil colony	4.5 Cum
51	Sevadal nagar	4	Jamil colony	4.5 Cum
52	Gulista nagar	4	Jamil colony	4.5 Cum
53	Sabanpura	14	Budhwara	4.5 Cum
54	MNP no 06 bhaji bazaar	14	Budhwara	4.5 Cum
55	Kholapuri gate back side of police station (container no 12)	17	Gadgadeshwar	4.5 Cum
56	Near Ganeshdas house (container No 37)	17	Gadgadeshwar	4.5 Cum
57	Near Gajanan maharaj temple(container No 168)	17	Gadgadeshwar	4.5 Cum
58	Near Mahadev temple(container no 135)	17	Gadgadeshwar	4.5 Cum
59	Near Vidarbh premium society no (container 10)	17	Gadgadeshwar	4.5 Cum
60	Back side of Chakrapani colony (container no 78)	17	Gadgadeshwar	4.5 Cum
61	New ganesh colony (container no 2)	17	Gadgadeshwar	4.5 Cum
62	Gadge baba Samadhi	3	Navasari	4.5 Cum
63	Shaan hotel	3	Navasari	4.5 Cum
64	Near panchwati fly over	2	PDMC	4.5 Cum
65	Mitthuchi chakki	6	Vilas Nagar	4.5 Cum
66	Vanikaran shegaon	2	PDMC	4.5 Cum
67	Visava colony	2	PDMC	4.5 Cum
68	Shegaon putala	1	Shegaon-rahatgoan	4.5 Cum
69	Waghmare chowk	1	Shegaon-rahatgoan	4.5 Cum
70	Manipuri layout	1	Shegaon-rahatgoan	4.5 Cum
71	Ram mandir	1	Shegaon-rahatgoan	4.5 Cum
72	Vikas nagar aaramachine	1	Shegaon-rahatgoan	4.5 Cum
73	Accounting officer office	15	Gawalipura	4.5 Cum
74	Panjabrao deshmukh hospital	2	PDMC	4.5 Cum
75	Gajanan maharaj temple	2	PDMC	4.5 Cum
76	ITI colony	2	PDMC	4.5 Cum
77	Kanta nagar	2	PDMC	4.5 Cum
78	Ganediwal layout	2	PDMC	4.5 Cum
79	Opposites of Yashomati thakur house	2	PDMC	4.5 Cum
80	Rohini park	2	PDMC	4.5 Cum

81	Opposites of MLA pote patil house	2	PDMC	4.5 Cum
82	Hotel galaxy	2	PDMC	4.5 Cum
83	Near Dr Alashi house	2	PDMC	4.5 Cum
84	Opposites Treasury office	2	PDMC	4.5 Cum
85	Opposites of Circuit house	8	Jog Stadium	4.5 Cum
86	Chaprashi pura chowk	8	Jog Stadium	4.5 Cum
87	Andha vidyalaya	8	Jog Stadium	4.5 Cum
88	Paradhi colony	8	Jog Stadium	4.5 Cum
89	Chaitanya colony	8	Jog Stadium	4.5 Cum
90	Opposites of Municipal Commissioner house	2	PDMC	4.5 Cum
91	Khaparde garden	13	Ambapeth	4.5 Cum
92	Samadhan nagar	8	Jog Stadium	4.5 Cum
93	Fruit galli	8	Jog Stadium	4.5 Cum
94	Tope nagar samaj mandir	8	Jog Stadium	4.5 Cum
95	Laghu vetan colony	8	Jog Stadium	4.5 Cum
96	Panch mandir	6	Vilas Nagar	4.5 Cum
97	Chaprashi pura shukravari bazaar	8	Jog Stadium	4.5 Cum
98	Matang pura wadali	9	SRPF	4.5 Cum
99	Benoda matang galli	10	Benoda	4.5 Cum
100	Vidya colony	10	Benoda	4.5 Cum
101	Vidyabharti college	8	Jog Stadium	4.5 Cum
102	Irvin hospital	2	PDMC	4.5 Cum
103	Dufferin hospital	2	PDMC	4.5 Cum
104	Sanskrutik bhavan	2	PDMC	4.5 Cum
105	Gajanan maharaj temple	2	PDMC	4.5 Cum
106	Dastur nagar	10	Benoda	4.5 Cum
107	Jilha stadium	2	PDMC	4.5 Cum
108	Amar soda factory	6	Vilas Nagar	4.5 Cum
109	Gaffur kureshi	6	Vilas Nagar	4.5 Cum
110	Vasant takij	13	Ambapeth	4.5 Cum
111	Tahasil office	13	Ambapeth	4.5 Cum
112	Dhamori	14	Budhwara	4.5 Cum
113	Animal hospital	13	Ambapeth	4.5 Cum
114	Neharu maindan	13	Ambapeth	4.5 Cum
115	Auto galli	13	Ambapeth	4.5 Cum
116	Puja transport	13	Ambapeth	4.5 Cum
117	Lakhan raj	18	Rajapeth	4.5 Cum
118	Kalyan nagar	11	Frezarpura	4.5 Cum
119	Prashant nagar garden	12	Rukhmini nagar	4.5 Cum
120	Ganesh colony garden	12	Rukhmini nagar	4.5 Cum
121	Rukhmini nagar	12	Rukhmini nagar	4.5 Cum
122	Opposites of Hamalpura main mandir	12	Rukhmini nagar	4.5 Cum
123	Dr patode	13	Ambapeth	4.5 Cum
124	Zone office rajapeth kotha	18	Rajapeth	4.5 Cum
125	Ramnagar	18	Rajapeth	4.5 Cum
126	Buty plot	13	Ambapeth	4.5 Cum

127	Yashoda nagar no1	11	Frezarpura	4.5 Cum
128	Badnera somwar bazaar	22	Naviwasti Badnera	4.5 Cum
129	Badnera holly cross	22	Naviwasti Badnera	4.5 Cum
130	Badnera zone office	22	Naviwasti Badnera	4.5 Cum
131	Yawatmal road	22	Naviwasti Badnera	4.5 Cum
132	Mahesh bhavan	19	Sai nagar	4.5 Cum
133	Shankar smashan	18	Rajapeth	4.5 Cum
134	Sudarshan building	18	Rajapeth	4.5 Cum
135	Mahanubhav aashram	18	Rajapeth	4.5 Cum
136	Rahatgaon kondwada	1	Shegaon-rahatgoan	4.5 Cum
137	Rahatgaon masjid	1	Shegaon-rahatgoan	4.5 Cum
138	Ring road, kathora naka	1	Shegaon-rahatgoan	4.5 Cum
139	Nemani jean	6	Vilas Nagar	4.5 Cum
140	Chavare nagar ground	20	Sutgirani	4.5 Cum
141	Murmura factory	20	Sutgirani	4.5 Cum
142	Saturna	19	Sai nagar	4.5 Cum
143	Saturna press	19	Sai nagar	4.5 Cum
144	Durga naka	19	Sai nagar	4.5 Cum
145	Dr khatri hospital	13	Ambapeth	4.5 Cum
146	Parijat colony	1	Shegaon-rahatgoan	4.5 Cum
147	Pushkaraj colony	3	Navasari	4.5 Cum
148	Shrikrushn peth	8	Jog Stadium	4.5 Cum
149	No 6 school	8	Jog Stadium	4.5 Cum
150	No 9 school chaprashipura	8	Jog Stadium	4.5 Cum
151	Chhangani nagar	19	Sai nagar	4.5 Cum
152	Moti nagar	11	Frezarpura	4.5 Cum
153	New ganesh colony naka	13	Ambapeth	4.5 Cum
154	Sutgirini maindan	20	Sutgirani	4.5 Cum
155	Vikrant lawn	20	Sutgirani	4.5 Cum
156	Raja nagar badnera	22	Naviwasti Badnera	4.5 Cum
157	Suyog colony	2	PDMC	4.5 Cum
158	Tapowan	1	Shegaon-rahatgoan	4.5 Cum
159	500 cotter	9	SRPF	4.5 Cum
160	Collector office	13	Ambapeth	4.5 Cum
161	Azad nagar ground	15	Gawalipura	4.5 Cum
162	Noor nagar ground	15	Gawalipura	4.5 Cum
163	Hanuman nagar, toilets	16	Alim Nagar	4.5 Cum
164	Gandhi nagar garden	17	Gadgadeshwar	4.5 Cum
165	Hamalpura DB	12	Rukhmini nagar	4.5 Cum

166	Shankar nagar main road	12	Rukhmini nagar	4.5 Cum
167	Opposites Gopal takij rajapeth	18	Rajapeth	4.5 Cum
168	Kanvar nagar	11	Frezarpura	4.5 Cum
169	Mahajanpura toilets	17	Gadgadeshwar	4.5 Cum
170	Bele galli	14	Budhwara	4.5 Cum
171	Club galli	14	Budhwara	4.5 Cum
172	Deshpande plot	20	Sutgirani	4.5 Cum
173	Joshi colony	8	Jog Stadium	4.5 Cum
174	Inside Telicom Colony	8	Jog Stadium	4.5 Cum
175	Gulista nagar	4	Jamil Colony	4.5 Cum
176	Nandanvan Colony	8	Jog Stadium	4.5 Cum
177	Near Shende Ration Shop, Bus Stop	9	SRPF	4.5 Cum
178	Benoda Mahila Lain	10	Benoda	4.5 Cum
179	Mahendra Mahavidyalaya	8	Jog Stadium	4.5 Cum
180	Pariharpura Ground	9	SRPF	4.5 Cum
181	New ganesh Colony	10	Benoda	4.5 Cum
182	Jayant Colony	10	Benoda	4.5 Cum
183	Shukravar Bazaar	8	Jog Stadium	4.5 Cum
184	Frezarpura Smashn Bhumi	10	Benoda	4.5 Cum
185	Infront Of Poster Colony	8	Jog Stadium	4.5 Cum
186	Back side of Chakrapani colony (container no 78)	17	Gadgadeshwar	4.5 Cum
187	Suyog colony	2	PDMC	4.5 Cum
188	Yawatmal road	22	Naviwasti Badnera	4.5 Cum
189	Irvin hospital	2	PDMC	4.5 Cum
190	Prashant nagar garden	12	Rukhmini nagar	4.5 Cum
191	Jayant Colony	10	Benoda	4.5 Cum
192	Giramkar Layout	9	SRPF	4.5 Cum
193	Tahasil office	13	Ambapeth	4.5 Cum
194	Chhatri Talav Main Road	10	Benoda	4.5 Cum
195	Haji Marg	8	Jog Stadium	4.5 Cum
196	Utkarsha Colony Inside	8	Jog Stadium	4.5 Cum
197	Near Hanuman Mandir, Central Jail	8	Jog Stadium	4.5 Cum
198	Kanvar nagar	11	Frezarpura	4.5 Cum
199	Samadhan nagar	8	Jog Stadium	4.5 Cum
200	Sevadal nagar	4	Jamil Colony	4.5 Cum
201	Infront Of SRPF Hospital	9	SRPF	4.5 Cum
202	AMC School No. 13, Marathi	8	Jog Stadium	4.5 Cum
203	Infront Of Police Chauki	8	Jog Stadium	4.5 Cum
204	Central Jail Kadu Sir	8	Jog Stadium	4.5 Cum
205	Near Hanuman Mandir, Central Jail	8	Jog Stadium	4.5 Cum
206	Andhvidhyalay	8	Jog Stadium	4.5 Cum
207	Haji Marg	8	Jog Stadium	4.5 Cum
208	Pankaj Shivneri Colony	8	Jog Stadium	4.5 Cum
209	Utkarsha Colony Inside	8	Jog Stadium	4.5 Cum
210	Infront Of Poster Colony	8	Jog Stadium	4.5 Cum

211	Inside Telicom Colony	8	Jog Stadium	4.5 Cum
212	Shukravar Bazaar	8	Jog Stadium	4.5 Cum
213	Mahendra Mahavidyalaya	8	Jog Stadium	4.5 Cum
214	Kamal Chaya	8	Jog Stadium	4.5 Cum
215	Laghuvetan Colony Near Drainage	8	Jog Stadium	4.5 Cum
216	Nandanvan Colony	8	Jog Stadium	4.5 Cum
217	Haji Marg	8	Jog Stadium	4.5 Cum
218	Gajanan Maharaj Temple, Rajashri Colony	10	Benoda	4.5 Cum
219	Gajanan Maharaj Temple, Rajashri Colony	10	Benoda	4.5 Cum
220	Jayant Colony	10	Benoda	4.5 Cum
221	New ganesh Colony	10	Benoda	4.5 Cum
222	Chhatri Talav Main Road	10	Benoda	4.5 Cum
223	Chaitanya Colony	10	Benoda	4.5 Cum
224	Chaitanya Colony	10	Benoda	4.5 Cum
225	Mankarna Nagar, Mungasaji Mauli	10	Benoda	4.5 Cum
226	Hole Patil, Benoda	10	Benoda	4.5 Cum
227	Benoda Mahila Lain	10	Benoda	4.5 Cum
228	Frezarpura Smashn Bhumi	10	Benoda	4.5 Cum
229	Rahemat nagar Ground	16	Alim nagar	4.5 Cum
230	Near Urdu School No. 3	15	Gawalipura	4.5 Cum
231	Pakija Colony	4	Jamil colony	4.5 Cum
232	Sevadal nagar	4	Jamil colony	4.5 Cum
233	Gulista nagar	4	Jamil colony	4.5 Cum
234	Sabanpura	14	Budhwara	4.5 Cum
235	MNP no 06 bhaji bazaar	14	Budhwara	4.5 Cum
236	Kholapuri gate back side of police station (container no 12)	17	Gadgadeshwar	4.5 Cum
237	Near Ganeshdas house (container No 37)	17	Gadgadeshwar	4.5 Cum
238	Near Gajanan maharaj temple(container No 168)	17	Gadgadeshwar	4.5 Cum
239	Near Mahadev temple(container no 135)	17	Gadgadeshwar	4.5 Cum
240	Near Vidarbh premium society no (container 10)	17	Gadgadeshwar	4.5 Cum
241	Back side of Chakrapani colony (container no 78)	17	Gadgadeshwar	4.5 Cum
242	New ganesh colony (container no 2)	17	Gadgadeshwar	4.5 Cum
243	Gadge baba Samadhi	3	Navasari	4.5 Cum
244	Shaan hotel	3	Navasari	4.5 Cum
245	Near panchwati fly over	2	PDMC	4.5 Cum
246	Mitthuchi chakki	6	Vilas Nagar	4.5 Cum
247	Vanikaran shegaon	2	PDMC	4.5 Cum
248	Visava colony	2	PDMC	4.5 Cum
249	Shegaon putala	1	Shegaon-rahatgoan	4.5 Cum
250	Waghmare chowk	1	Shegaon-rahatgoan	4.5 Cum
251	Manipuri layout	1	Shegaon-rahatgoan	4.5 Cum
252	Ram mandir	1	Shegaon-rahatgoan	4.5 Cum

253	Vikas nagar aaramachine	1	Shegaon-rahatgoan	4.5 Cum
254	Accounting officer office	15	Gawalipura	4.5 Cum
255	Panjabrao deshmukh hospital	2	PDMC	4.5 Cum
256	Gajanan maharaj temple	2	PDMC	4.5 Cum
257	ITI colony	2	PDMC	4.5 Cum
258	Kanta nagar	2	PDMC	4.5 Cum
259	Ganediwal layout	2	PDMC	4.5 Cum
260	Opposites of Yashomati thakur house	2	PDMC	4.5 Cum
261	Rohini park	2	PDMC	4.5 Cum
262	Opposites of MLA pote patil house	2	PDMC	4.5 Cum
263	Hotel galaxy	2	PDMC	4.5 Cum
264	Near Dr Alashi house	2	PDMC	4.5 Cum
265	Opposites Treasury office	2	PDMC	4.5 Cum
266	Opposites of Circuit house	8	Jog Stadium	4.5 Cum
267	Chaprashi pura chowk	8	Jog Stadium	4.5 Cum
268	Andha vidyalaya	8	Jog Stadium	4.5 Cum
269	Paradhi colony	8	Jog Stadium	4.5 Cum
270	Chaitanya colony	8	Jog Stadium	4.5 Cum
271	Opposites of Municipal Commissioner house	2	PDMC	4.5 Cum
272	Khaparde garden	13	Ambapeth	4.5 Cum
273	Samadhan nagar	8	Jog Stadium	4.5 Cum
274	Fruit galli	8	Jog Stadium	4.5 Cum
275	Tope nagar samaj mandir	8	Jog Stadium	4.5 Cum
276	Laghu vetan colony	8	Jog Stadium	4.5 Cum
277	Panch mandir	6	Vilas Nagar	4.5 Cum
278	Chaprashi pura shukravari bazaar	8	Jog Stadium	4.5 Cum
279	Matang pura wadali	9	SRPF	4.5 Cum
280	Benoda matang galli	10	Benoda	4.5 Cum
281	Vidya colony	10	Benoda	4.5 Cum
282	Vidyabharti college	8	Jog Stadium	4.5 Cum
283	Irvin hospital	2	PDMC	4.5 Cum
284	Dufferin hospital	2	PDMC	4.5 Cum
285	Sanskrutik bhavan	2	PDMC	4.5 Cum
286	Gajanan maharaj temple	2	PDMC	4.5 Cum
287	Dastur nagar	10	Benoda	4.5 Cum
288	Jilha stadium	2	PDMC	4.5 Cum
289	Amar soda factory	6	Vilas Nagar	4.5 Cum
290	Gaffur kureshi	6	Vilas Nagar	4.5 Cum
291	Vasant takij	13	Ambapeth	4.5 Cum
292	Tahasil office	13	Ambapeth	4.5 Cum
293	Dhamori	14	Budhwara	4.5 Cum
294	Animal hospital	13	Ambapeth	4.5 Cum
295	Neharu maindan	13	Ambapeth	4.5 Cum
296	Auto galli	13	Ambapeth	4.5 Cum
297	Puja transport	13	Ambapeth	4.5 Cum

298	Lakhan raj	18	Rajapeth	4.5 Cum
299	Kalyan nagar	11	Frezarpura	4.5 Cum
300	Prashant nagar garden	12	Rukhmini nagar	4.5 Cum

Other information and analysis of Secondary Waste Storage System is summarised below on the basis of the information provided by the ULB and field visits undertaken by the consultant.

Table 23: Other Information & Analysis on Secondary Waste Storage System

No.	Details	Analysis
1	Bin/ population ratio	2050
2	Total storage capacity of waste storage facilities in cubic meters	1750
3	Frequency of collection of waste from the depots Number of bins cleared	• Daily-(16 Nos / 64 CuM) – 3.6 % • Once in two days - (20 Nos / 80 CuM) –4.5% • Once in a week -(300 Nos / 1200 CuM)-68 % • Once in two weeks - (14 Nos / 56 CuM) – 3.2 %
4	Storage depots having facility for storage of segregated waste in green, blue and black bins	• Yes - (300 Nos)- 69.0% • No - (132 Nos) - 31 %
5	Lifting of solid waste from storage depots	• Manual - 58 % • Mechanical - 42 %
6	Working Condition	• Functional -(300 Nos) - 69 % • Non-Functional - (132 Nos) - 31 %
7	Transfer Station Details	Not Available
8	Other Information	

Source: Analysis by the consultant on the basis of information provided by ULB.

3.3.4. MSW Collection & Transportation System

About 241.2 MT waste is handled every day in the form of collection or Transportation. The ULB has not adopted any uniform primary or secondary collection and transportation system. The table below shows existing baseline information on daily waste collection and transportation.

Table 24: Baseline information on Waste Collection and Transportation

C&T System	Collection Source	Destination of Waste C&T	Non-Motorised Vehicle Available	Motorised Vehicle Available	Total Waste C&T Per Day (in MT)
01. Primary C&T	DTDC	TRT./ DIS. Site			0
		CB		Tata Ape/ Magic(132 Nos)	158.2
		OG	Tri Cycles(132 Nos)		66.0
02. Secondary C&T	CB	Disposal / Treatment Site			0
		OG			0
	CB + SS	TRT./DIS. Site		Tipping Truck (24 Nos), Dumper Placers(16 Nos),Refuse Collectors(2 Nos)	241.2
		Open Grounds			0
	ONLY SS	TRT./ DIS. Site			0

		OG			0
Total			Tri Cycles(132 Nos)	Tata Ape/ Magic(132 Nos), Tipping Truck (24 Nos), Dumper Placers(16 Nos),Refuse Collectors(2 Nos)	241.2

Source: Urban Local Body

- C&T- Collection and Transportation
- DTDC- Door to Door Collection
- CB- Community Bins
- SS-Street Sweeping
- TRT./DIS. Site- Treatment / Disposal Site
- OG-Open Grounds

Other information and analysis of C&T System is summarised below on the basis of the information provided by the ULB and field visits undertaken by the consultant.

Table 25: Other Information & Analysis on C&T System

No.	Details	Analysis
1	Waste Handling through Primary C&T	• DTDC to TRT./ DIS - (0 MT) - 0% • DTDC to CB - (211.2 MT) - 73.59% • DTDC to OG - (0 MT) - 0%
2	Waste Handling through Secondary C&T	• CB to TRT/ DIS Site - (158 MT) – 53.2% • CB to OG - (0 MT) - 0% • CB + SS to TRT./ DIS. Site - (0 MT) - 0% • CB + SS to OG - (66 MT) - 23% • ONLY SS to TRT./ DIS. Site - (0 MT) - 0% • ONLY SS to OG - (0 MT) - 0%
3	Daily Waste Handling	• Daily Collection (From DTDC, CB, SS) - (241.2 Nos) - 84 % • Daily Waste Transported (To TRT./ DIS, OG) - (241.2 Nos) - 84.05 %
4	Type of Vehicle Deployed	• Motorised Vehicle - (172 Nos) • Non-Motorised Vehicles - (132 Nos)
5	Vehicle Ownership (ULB)	• Motorised Vehicle - (132 Nos) • Non-Motorised Vehicles - (132 Nos)
6	Vehicle Ownership (Private Operator)	• Motorised Vehicle - (40 Nos) • Non-Motorised Vehicles - (0 Nos)
7	Working Condition (Functional)	• Motorised Vehicle - (172 Nos) • Non-Motorised Vehicles - (132 Nos)
8	Working Condition (Non-Functional)	• Motorised Vehicle - (0 Nos) • Non-Motorised Vehicles - (0 Nos)
9	Other Information	
Analysis by the consultant on the basis of information provided by ULB.		

- C&T- Collection and Transportation
- DTDC- Door to Door Collection
- CB- Community Bins
- SS-Street Sweeping
- TRT./DIS. Site- Treatment / Disposal Site
- OG-Open Grounds

3.3.5. MSW Processing

The table below shows existing baseline information on MSW Processing.

Table 26: Information on MSW Processing		
No.	**Details**	**Analysis**
1	Available MSW Processing Facility	YES
2	Type of Treatment Used	Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology
3	%age of total waste Processed	1
4	Processing Currently Done	Biodegradable Waste - (3) - 1 %
5	Land currently utilized for waste processing	Total Foot Print Area Land currently utilized for waste processing 80 Sq. MT
6	Treatment Done By	ULB (Biodegradable Waste,) Private Operator ()
7	Selling of By-product in Market	YES (0 MT) - 0 % NO (3 MT) - 100 %
8	Saleable Rate of By-Product (in Rs.)	0
9	Current Working Condition	Currently Functional - (Biodegradable Waste,) Currently Non-Functional - ()
10	Other Information	
Source: Analysis by the consultant on the basis of information provided by ULB.		

3.3.6. MSW Disposal

The table below shows existing baseline information on MSW Disposal.

Table 27: Information on MSW Disposal		
No.	**Details**	**Analysis**
0	Available Disposal Facility	YES
1	Estimated Amount of Old Waste at Disposal Site	240000 MT
2	Estimated Amount of Waste Dumped Daily	205 MT
3	Land currently utilized for waste disposal	70000 Sq. MT
4	Type of Disposal	NA
5	Other Information	
Source: Analysis by the consultant on the basis of information provided by ULB.		

3.3.7. Available Equipment's / Vehicles for Processing and Disposal

Functional Assets:- ULB has 2 JCB ,1 Tractor Mounted Loader functional assets for Processing and Disposal

3.3.8. Manpower deployed for MSWM system

The following are the details of manpower deployed by the ULB for MSWM.

Table 28: Existing Manpower for SWM						
Activity	**Type of Post**	**Total Sanctioned Post**	**Total Filled Post**	**Total Vacant Post**	**Daily Wage Labour**	**Sub Total**
Supervision	Sanitation Head	1	1	0	0	2
Supervision	Sanitation Inspector	5	5	0	0	10
Supervision	Sanitation Supervisors	86	86	0	0	172
Collection	Sanitation Worker	662	662	0	989	2313
Transportation	Driver	0	0	0	40	40
Transportation	Sanitation Worker	0	0	0	120	120
Street sweeping and Drain Cleaning	Sanitation Worker	117	117	0	174	408
Treatment	Sanitation Worker	0	0	0	0	0
Disposal	Sanitation Worker	1	1	0	0	2
Total		**872**	**872**	**0**	**1323**	**3067**
Source: Urban Local Body						

3.3.9. Biomedical & Hazardous Waste Management

As per information provided by ULB, the biomedical and hazardous Waste is managed by other district level agency as per direction of MPCB.

3.3.10. Construction & Demolition Waste Management

As per information provided by ULB, the construction & demolition waste is not found in large quantities and are handled by only street sweeping activities. The said waste is disposed in low lying area as per ULB.

3.3.11. Equipment Repair Facility

As per information provided by ULB, There is no dedicated equipment repair facility available with the ULB.

3.4. Status of Land Available for Waste Processing and Disposal

The following are the details of Land Available for Waste Processing and Disposal.

Table 29: Status of Land Available for Waste Processing and Disposal				
No.	**Details**	**Sukhli Depot.**	**Akoli ByPass**	**Badnera**
1	Current Use	Only Dumping	Not in use	Not in use
2	Area(in Hectare)	12	2.83	1.15
3	Survey Number	144	295/1, 295/2	26
4	Distance of processing facilities from city/town boundary(in Kms)	3	4	3
5	Distance from the nearest habitation(in Kms)	1	2	1
6	Distance from water body(in Kms	1	6	4
7	Distance from state/national highway(in Kms)	1	2	1
8	Distance from Airport(in Kms)	11	7	5
9	Distance from important religious places or historical monument(in Kms)	170	172	178
10	Whether it falls in flood prone area	No	No	No
11	Whether it falls in earthquake fault line area	No	No	No
12	Site is fenced	No	Yes	No
13	Lighting facility is available on site	Yes	No	No
14	Weigh bridge facility available	No	No	No
15	Storage Facility Available	Yes	No	No

Source: Analysis by the consultant on the basis of information provided by ULB.		

3.5. Overall Compliance of SWM RULES

The following is the overall compliance of SWM Rule 2016, under sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986).

Table 30: Overall Compliance of SWM Rules

No.	Activity	Details	Compliance
1	Quantity of Solid waste (solid waste)	**1. Estimated Quantity of solid waste generated in the local body area per day in metric tones**	Refer Table 20
		2. Quantity of solid waste collected per day	Refer Table 25
		3. Per capita waste collected per day	Refer Table 25
		4. Quantity of solid waste processed	Refer Table 27
		5. Quantity of solid waste disposed at dumpsite/ landfill	Refer Table 28
2	Segregation and storage of waste at source	**6. Whether solid waste is stored at source in domestic/commercial/ institutional bins, If yes,**	Refer Section 3.4.1
		• Percentage of households practice storage of waste at source in domestic bins	
		• Percentage of non-residential premises practice storage of waste at source in commercial /institutional bins	
		• Percentage of households dispose or throw solid waste on the streets	
		• Percentage of non-residential premises dispose of throw solid waste on the streets	
		7. Whether solid waste is stored at source in a segregated form, If yes,	Refer Section 3.4.1
		• Percentage of premises segregating the waste at source	
3	Door to Door Collection of solid waste	**8. Whether door to door collection (D2D) of solid waste is being done in the city/town, if yes**	Refer Section 3.4.4.
		• Number of wards covered in D2D collection of waste	
		• No. of households covered	
		• No. of non-residential premises including commercial establishments, hotels, restaurants educational institutions/ offices etc covered	
		9. Percentage of residential and non-residential premises covered in door to door collection through :	Refer Section 3.4.4.
		• Motorized vehicle	
		• Containerized tricycle/handcart	
		• Other device	
4	Street Sweeping	**10. If (8) not, method of primary collection adopted**	Refer Table 21
		11. Sweeping of streets	Refer Table 22
		• Length of roads, streets, lanes, bye-lanes in the city that need to be cleaned	
		12. Frequency of street sweepings and percentage of population covered	Refer Table 22
		• Daily % of population covered	
		• Alternate days % of population covered	
		• Twice a week % of population covered	
		• Occasionally % of population covered	
		13. Tools used for Sweeping	Refer Table 22
		• Manual sweeping %	

Table 30: Overall Compliance of SWM Rules						
No.	**Activity**	**Details**	**Compliance**			
		• Mechanical sweeping %				
		14. Whether long handle broom used by sanitation workers	Refer Table 22			
		15. Whether each sanitation worker is given handcart/tricycle for collection of waste	Refer Table 22			
		16. Whether handcart / tricycle is containerized	Refer Table 22			
		17. Whether the collection tool synchronizes with collection/ waste storage containers utilized	Refer Table 22			
5	Secondary Waste Storage facilities	**18. No. and type of waste storage depots in the city/town**	**No.**	**Capacity in m3**		
		• Open waste storage sites	Refer Table 24			
		• Masonry bins				
		• Cement concrete cylinder bins				
		• Dhalao/covered rooms/space				
		• Covered metal/plastic containers				
		• Upto 1.1 m3 bins				
		• 2 to 5 m3 bins				
		• Above 5m3 containers				
		• Bin-less city				
		19. Bin/ population ratio	Refer Table 24			
		20. Ward wise details of waste storage depots	**Area**	**Population**	**No. of bins placed**	**Total volume of bins placed**
		• Ward No	Refer Table 24			
		21. Total storage capacity of waste storage facilities in cubic meters	Refer Table 24			
		22. Total waste actually stored at the waste storage depots daily	Refer Table 24			
		23. Give frequency of collection of waste from the depots Number of bins cleared	Refer Table 24			
		• Daily				
		• Alternate days				
		• Twice a week				
		• Occasionally				
		24. Whether storage depots have facility for storage of segregated waste in green, blue and black bins, If yes	Refer Table 24			
		• No. of green bins:				
		• No. of blue bins:				
		• No. of black bins:				
		25. Lifting of solid waste from storage depots	Refer Table 24			
		• (%) of Manual Lifting of solid waste				
		• (%) of Mechanical lifting				
		26. If mechanical – specify the method used	Refer Table 24			
		27. Whether solid waste is lifted from door to door and transported to treatment plant directly in a segregated form	Refer Table 24			
6	Waste transportation per day	**28. Type and Number of vehicles used**	**Nos.**	**Trips made per day**	**Total Waste Transported**	
		• Animal cart	Refer Section 3.4.4.			
		• Tractors				
		• Non-tipping Truck				
		• Tipping Truck				
		• Dumper Placers				
		• Refuse collectors				
		• Compactors				

Table 30: Overall Compliance of SWM Rules						
No.	**Activity**	**Details**	**Compliance**			
		• Others				
		• JCB/loader				
		29. Frequency of transportation of waste	Refer Section 3.4.4.			
		• Daily				
		• Alternate day				
		• Twice a week				
		• Once a week				
		• Occasionally				
		30. Quantity of waste transported each day	Refer Section 3.4.4.			
		31. Percentage of total waste transported daily	Refer Section 3.4.4.			
7	Waste Treatment Technologies used	**32. Whether solid waste is processed, If yes,**	Refer Table 27			
		• Quantity of waste processed daily				
		• Whether treatment is done by local body or through an agency				
		• Land(s) available with the local body for waste processing (in Hectare)				
		• Land currently utilized for waste processing				
		• Solid waste processing facilities in operation				
		• Solid waste processing facilities under construction				
		• Distance of processing facilities from city/town boundary				
		• Details of technologies adopted	Qty. raw material processed	Qty. final product produced	Qty. sold	Quantity of residual waste landfilled
		o Composting	Refer Table 27			
		o Vermi composting				
		o Bio-methanation				
		o Refuse Derived Fuel o Waste to Energy technology such as incineration, gasification, pyrolysis or any other technology				
		• Co-processing	Refer Table 27			
		• Combustible waste supplied to cement plant				
		• Combustible waste supplied to solid waste based power plants				
		• Others				
8	Solid waste disposal facilities	**33. No. of dumpsites sites available with the localbody**	Refer Table 30			
		34. No. of sanitary landfill sites available with thelocal body	Refer Table 30			
		35. Area of each such sites available for waste disposal	Refer Table 30			
		36. Area of land currently used for waste disposal	Refer Table 30			
		37. Distance of dumpsite/landfill facility from city/town	Refer Table 30			
		38. Distance from the nearest habitation	Refer Table 30			
		39. Distance from water body	Refer Table 30			
		40. Distance from state/national highway	Refer Table 30			
		41. Distance from Airport	Refer Table 30			
		42. Distance from important religious places or historical monument	Refer Table 30			
		43. Whether it falls in flood prone area	Refer Table 30			
		44. Whether it falls in earthquake fault line area	Refer Table 30			
		45. Quantity of waste land filled each day	Refer Table 30			
		46. Whether landfill site is fenced	Refer Table 30			
		47. Whether Lighting facility is available on site	Refer Table 30			
		48. Whether Weigh bridge facility available	Refer Table 30			
		49. Vehicles and equipment's used at landfill	Refer Table 30			
		• Bulldozer				

Table 30: Overall Compliance of SWM Rules			
No.	**Activity**	**Details**	**Compliance**
		• Compacters	
		• Other	
		50. Manpower deployed at landfill site, if Yes	Refer Table 30
		• Number of Manpower Deployed	
		51. Whether covering is done on daily basis	Refer Table 30
		• If not, Frequency of covering the waste deposited at the landfill	
		52. Cover material used	Refer Table 30
		53. Whether adequate covering material is available	Refer Table 30
		54. Provisions for gas venting provided	Refer Table 30
		55. Provision for leachate collection	Refer Table 30
Source: Solid Waste Management Rules, 2016 Information Taken from The Gazette Of India : Extraordinary, PART II—Section 3—Sub-section (ii), Dated APRIL 8, 2016			

4. Gap Analysis

4.1. Gaps In Segregation System

The current gaps in segregation system is calculated for the ULB in the below table.

Table 31: Current Gaps in Segregation System		
Details	**Existing**	**Methodology for Calculations**
a. Quantum of waste that is segregated (Tonnes per month)	**875.21**	The total quantum of waste that arrives in a segregated manner at the treatment and/or disposal site (that is, composting yards, waste treatment plants, landfill sites, etc.). Waste that arrives at these locations in an unsegregated manner is not considered. Waste taken away by recyclers from intermediate points is added to this quantum.
b. Total quantum of waste that is collected by the ULB or authorised service providers (Tonnes per month)	**7876.94**	The total waste collected from households, establishments and common collection points. This is based on actual weighing of the collected waste, and excludes any special drives for waste collection, and waste generated from one-off activities such as demolitions, desilting canals, etc. (This corresponds to the quantity of (b), as measured for the indicator on collection efficiency.)
c. Current Coverage (IN %)	**10**	Extent of segregation = [(a/b)*100]
d. Current Gaps (IN %)	**90**	Current Gaps= 100%- Current Coverage (C)
Source: Analysis by the consultant on the basis of information provided by Urban Local Body		

4.2. Gaps in Door to Door Collection System

The current gaps in D2D Collection system calculated for the ULB in the below table.

Table 32: Current Gaps in Door to Door Collection System		
Details	**Existing**	**Methodology for Calculations**
a. Total number of households and establishments in the service area	**154196**	The total number of households and establishments (not properties) in the service area is calculated. The service area refers to either the ward or the ULB limits.
b. Total number of households and establishments with daily doorstep collection	**114105**	Include doorstep collection by the ULB itself or ULB approved service providers. This can even include door-to-door collection systems operated by RWAs, etc.
c. Current Coverage (IN %)	**74**	Coverage = [(b/a)*100]
d. Current Gaps (IN %)	**26**	Current Gaps= 100%- Current Coverage (C)
Source: Analysis by the consultant on the basis of information provided by Urban Local Body		

4. 3. Gaps in Collection and Transportation

The current gaps in Waste Collection & Transportation of waste is calculated for the ULB in the below table.

Table 33: Current Gaps in Collection and Transportation of Waste		
Details	**Existing**	**Methodology for Calculations**
a. Total waste that is generated and which needs to be collected (Tonnes per month)	**8751.9**	The total waste generated excluding waste processed or recycled at the generation point. This depend on the population of the city, and the composition of economic activities.
b. Total quantum of waste that is collected by the ULB or authorised service providers (Tonnes per month)	**7351.84**	The total waste collected from households, establishments and common collection points. This is based on actual weighing of the collected waste. Daily generation is aggregated to calculate the total monthly quantum. This exclude any special drives for waste collection, and waste generated from one-off activities such as demolitions, de-silting canals, etc.
c. Current Coverage (IN %)	**84**	Collection efficiency = [(b/a)*100]
d. Current Gaps (IN %)	**16**	Current Gaps= 100%- Current Coverage (C)
Source: Analysis by the consultant on the basis of information provided by Urban Local Body		

The current situation is summarised briefly below on the basis of information provided by Urban Local Body.

- Absence of source collection and segregation

- Street littering in open plots, drains, water body and along road side is quite common as people throw their waste on streets instead of depositing in community bins
- Collection and transportation system is incompatible, therefore manual and multiple handling becomes inevitable
- Waste through open vehicles and mixed form is transported
- The quantity of waste transported as well as the operation hours of each vehicle is not measured
- Less numbers of Storage Bins
- About 35 % storage is on open ground.
- Size and location of Bins are not decided appropriately
- Open burning in community bins/pits quite common
- No prompt repairing arrangement for damaged bins and equipment
- Sweeping is done on very few roads that too without drain cleaning
- No work on Sundays and holidays
- Pushcart is ill designed and in insufficient numbers
- Workers do not use any safety equipment/tools
- Manual and multiple handling unavoidable

4.4. Gaps in Treatment & Disposal

The current gaps in Treatment and Disposal of Waste is calculated for the ULB in the below table.

Table 34: Current Gaps in Treatment of Waste

Details	Existing	Methodology for Calculations
a. Amount of waste that is processed or recycled (Tonnes per month)	**90**	The total quantum of waste intake by waste processing/recycling facilities operated by the ULB or operator at a city/ward/locality level. Inert matter, and other material refused by the processing/recycling facilities, which will go back to the dumping sites/landfills, should be deducted from the intake quantities. Waste collected at intermediate points by informal mechanisms (rag pickers, etc.) and fed back into the recycling chain should be included in this quantity. This can be assessed through data from wholesale traders of such waste at the city level. Typically, there would be a few wholesalers at the city level from whom data can be collected.
b. Total quantum of waste that is collected by the ULB or authorised service providers (Tonnes per month)	**7351.84**	The total waste collected from households, establishments and common collection points. This should be based on actual weighing of the collected waste. This should exclude any special drives for waste collection, and waste generated from one-off activities such as demolitions, desilting canals, etc. (This corresponds to the quantity of (b), as measured for the indicator on collection efficiency.)
c. Extent of Treatment (IN %)	**1.2**	Extent of Treatment = [(b/a)*100]
d. Current Gaps in Treatment (IN %)	**98.8**	Current Gaps= 100%- Extent of Treatment(C)
e. Total waste actual to be disposed in 'compliant' landfills every month after Recovery(Tonnes per month)	**0.00**	A daily log of waste being disposed at such 'compliant' landfill sites should be maintained, based on actual measurement at weighbridges that are preferably located at the entrance to such sites. The monthly total should be the sum of daily totals in the month.
f. Total waste disposed in all landfills every month (Tonnes per month)	**7263.61**	The total waste disposed after collection and recovery (if any) at landfills (including compliant landfills and open dumpsites). This quantity should be based on actual measurement at weighbridges that are preferably located at the entrance to such sites. The monthly total should be the sum of daily totals in the month.
g. Extent of scientific disposal (IN %)	**0.00**	Extent of scientific disposal = [e/f]*100
h. Current Gaps in Disposal (IN %)	**100**	Current Gaps= 100%- Extent of Scientific Disposal(g)
Source: Urban Local Body		

The current situation is summarised briefly below on the basis of information provided by Urban Local Body.

- No processing facility available

- Raw waste without processing is disposed off
- Existing site is used as open dump without proper disposal method
- Existing site is functioning without any authorization
- Mixing of all kinds of waste including construction. bio-medical and industrial and disposal at disposal site.

4.4. Gaps in Awareness among City Residents and Civic Authorities

The current situation is summarised briefly below on the basis of information provided by Urban Local Body.

- Absence of mass awareness
- Lack of public private participation
- Absence of private sector participation

4.5. Gaps in Institutional Structure

The current situation is summarised briefly below on the basis of information provided by Urban Local Body.

- Dependence on government for financial, legal , policy and land matters
- Poor institutional arrangement at ULB level. CO and other Sanitation Officer are working as head of the sanitation section but they do not have any experience and knowledge about solid waste management. These officers are entirely dependent on subordinate staff with very less initiative and exposure to the new technologies in the SWM sector.
- Less importance to SWM section
- No information about existing resources, deficiencies
- Lack of interdepartmental cooperation
- Lack of supervision and absence of monitoring system
- Limited supervisory staff remains over occupied with multifarious activities
- Shortage of staff

4.6. Gaps in Capacity Building for ULB

The current situation is summarised briefly below on the basis of information provided by Urban Local Body.

- Lack of workshop and training plan for staff
- Lack of motivation and training facilities for Workers
- No work norm for workers and work plan for vehicle operators
- Absence of qualified and trained staff
- Absence of proper work distribution and delegation of duties
- Low productivity of workers and equipment

End of Part 1

1. Consultation with worker during survey

2. Various vehicle under AMC

3. Tractor mounted loader used at site

4. JCB used to clean drains

5. Solid waste throne around the bins

6. Road problem during rainy season

7. Workers cleaning open dumping site

8. Presentation during Genral body meeting

9. Solid waste chocking natural drains

10. Workers of Municipal Corporation

11. Stray animal at open dumping site

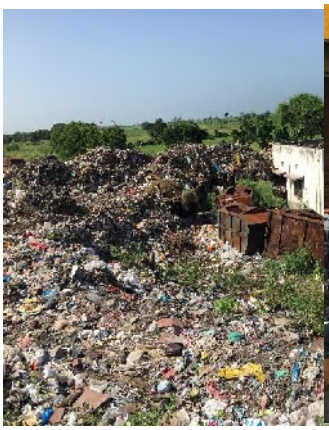
12. Site visit during survey

13. Stray animals at unused dumping site

14. Consultation with AMC officials

15. Compression machine at site

16. Various vehicle under AMC



17. Crude dumping at site

18. Public consultation during survey

Proposal for SWM

Amravati

District-Amravati

5. Project Definition

5.1. Project Objectives

The main objective / output expected through this RFP is "**Preparation of Detailed Project Report (DPR) of Solid Waste Management for the ULB**" under Swachh Maharashtra Mission (Urban). Once the DPRs are prepared and approved, implementation of projects would be taken up for achieving the objectives of the Swachh Maharashtra Mission.

A actionable and bankable DPR for Solid Waste Management for all ULB is to be prepared with the following outcomes to be achieved.

- A realistic, most feasible, economical & sustainable solutions/technologies shall be derived duly considering the local context / requirement of the city / town. The DPR should focus on segregation, decentralized treatment and recycling of waste at its full potential.
- All detailed Technical Designs, Bill of Quantities, Cost Estimates, Drawings & Specifications for civil and mechanical works proposed in DPR and cover aspect on Project Implementation Schedule, Project O&M planning, Project financial structuring, Project financial viability & sustainability, Project phasing, Project Institutional framework & Project Benefit assessment.
- Fund identification should be included through additional sources including SBM funds
- Strategies which Facilitates Private Sector participation or to augur Social Entrepreneurship.
- Cover all the technical, commercial & financial aspect which would be used during tender preparation stage for selection of developer for implementation of the project.
- All solutions shall be in line with proposed / ongoing programmes & schemes in town.
- Should strongly emphasize on an integrated waste management hierarchy.
- Sufficient & genuine consultations with the ULB (including health department, safaikaramcharis, NGOs, private operator, etc.) and the client for arriving at the most feasible & acceptable plan / solutions for the ULBs.

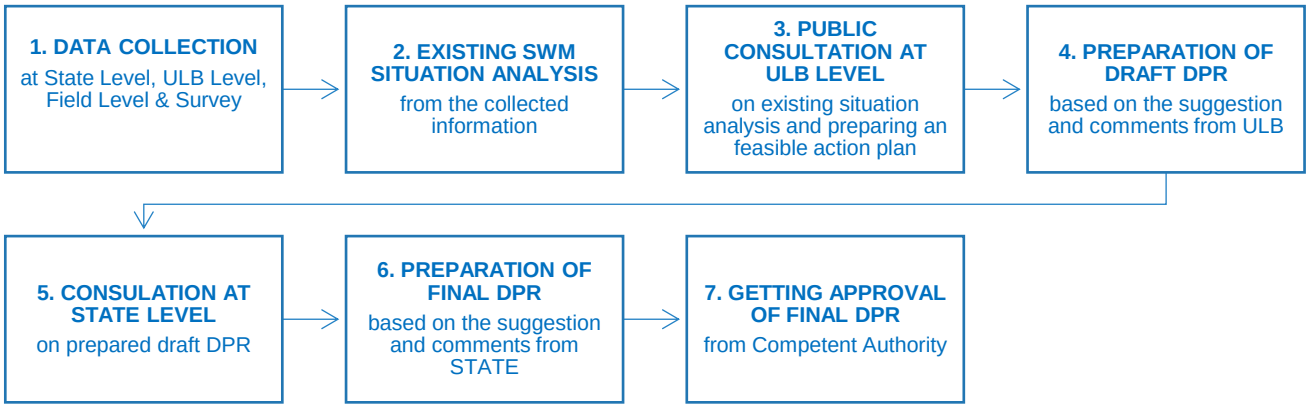
5.2. Scope of Project

- **DPR:** Preparation of Detailed Project Reports (DPRs) for ULB for Implementation of Integrated Solid waste management (segregation at source, collection, transportation, treatment & disposal) as per the guidelines of Swachh Baharat Mission and SWM Rules 2016. The DPR will clearly focus on segregation and recycling of waste at its full potential.

- **LAND:**Support ULB for identification of land (large enough to handle waste for at least 20-25 years requirement) for MSW processing, Material recovery facilities & landfill sites, after initial assessment based on the relevant site selection criteria from CPCB and MPCB. First and foremost, it is important to identify the status of land availability (eg. land already possessed by ULB, land in the process of possession, land possession not initiated, No land availability).

- **CLEARANCES:**Identification and listing of all required clearances / permissions in DPR from relevant authorities (State Pollution Control Board, Airport / Airfield Authorities, Flood Control/Ground water Management Authorities etc.) for setting up the SWM treatment plant & landfill site. Details of all necessary clearances / permissions with their status (clearance work to be initiated, clearance work in process, clearance received) should be included in the DPR.

5.3. Approach and Methodology



5.3. 1. Data Collection

1 The following information and review was required to be collected from **State Level**

(i) Information on land available with ULBs for activities such as temporary waste storage, segregation, processing, Landfill Etc.

(ii) Refer / make use of the following while preparing the DPR:

- Relevant Acts/ guidelines / notices issued by CPCB (landfill site selection criteria, etc.)& MPCB [eg. Maharashtra Non-Biodegradable Garbage (Control) Act 2006, Maharashtra Plastic Carry Bags (Manufacture and Usage) Rules 2006, etc.]
- Relevant GRs issued by Government of Maharashtra
- Handbook of Technologies Solid waste management-2016, Urban Development Department, Government of Maharashtra
- Relevant updates/ circulars by Swachh Bharat Mission (Urban) & Swachh Maharashtra Mission
- Relevant BIS standards (eg. IS 9234:1979, IS 9235:1979, IS 9569:1980, IS 10158:1982, IS 12402 (Part 1&2):1988, IS 12647:1989, IS 12662 (Part1):1989, IS 12662 (Part 2):2002, etc.
- Most appropriate normative standards & Technical Specifications of Solid Waste Management Equipment's

2 The following information and review was required to be collected from **ULB Level**

(i) Obtain base maps, and available secondary data on the ULB's demographics, service levels of SWM.

(ii) Collect all data related to Solid Waste Management from the ULB authorities viz. information about vehicles, equipment, collection system and expenditure being done presently on SWM.

(iii) Gather information about the prevalent system of Solid Waste Management in the ULBs by observing the current situation of the city.

(iv) Collect the budget and other financial details from the ULBs and assess its financial capability. Further collect information on mechanism & O/M of the equipment available, present establishment expenditure, technical and non-technical manpower available.

(v) Collect information on organizational roles and responsibilities, and monitoring and evaluation arrangements for the delivery of SWM services

(vi) Identify ongoing and proposed development works related to solid waste management.

(vii) Collect information pertaining to rag pickers/informal sector, kabadiwalas, Active NGO involved for SWM services etc.

(viii) Review and collect information on possibility of cooperation between ULBs & BSNL as per Memorandum of Understanding between BSNL &MoUD for providing eSBM platform for solid waste management in ULBs.

(ix) Identify and List all required clearances / permissions in DPR from relevant authorities (State Pollution Control Board, Airport / Airfield Authorities, Flood Control/Ground water Management Authorities etc.) for setting up the SWM treatment plant & landfill site. Details of all necessary clearances / permissions with their status (clearance work to be initiated, clearance work in process, clearance received)

3 The following information and review was required to be collected from **Field Level**

(i) Assess the suitability of allotted areas/land for SWM operations based on parameters laid down in MSW Rules 2000 and Municipal Solid Waste (Management & handling) Rules 2016.

4 The following information and review was required to be collected from **Field Survey** by using a mix of structured and participatory techniques.

(i) Assess the waste generation per capita per day (GPCPD) based on CPHEEO manual for Solid Waste Management and waste characterization for the towns by taking necessary samples wherever required residential areas, slums, commercial / institutional areas, markets, slaughter houses, etc.

(ii) Sites of community bins with details like Number, Location, Type, Condition, Present usage, Nuisance, if any.

(iii) Location of open plots, drains or other places used by the residents for indiscriminately throwing garbage and show them on the city map.

(iv) Location sites of disposal of solid waste with following details:
- Location for dumping solid waste.
- Availability or otherwise of sufficient land.
- Method of dumping.
- Condition at treatment site and surrounding.

(v) Undertake Physical characterization of waste, including content, density etc. as well as weight & volume of quantity of bio-degradable, non-biodegradable & recyclables available in the waste produced in the town every day and test report for quality of garbage from a standard test laboratory.

(vi) Assess the quantity of existing waste dumped at various locations in and around the town by conducting necessary topographical survey and its scientific disposal.

(vii) Study the topography of the town and collect information on road length and width.

(viii) The following table illustrates focused areas of the questionnaire interviews and the type of tools to be used to gather the required information and also the sample sizes at each level to support and further understand the situations.

Table 35: Sampling Methodology for Field Data Collection on SWM

No.	Level	Focussed areas	Tools	Sampling	Expected sample size
01	Focused Group Discussions	Slum areas, residential areas, elected representatives, and other potential areas	Check list	Random Sampling	2 – 5 FGDs
02	Institutions	Collector office, Municipal office, Bus station, etc.,	Questionnaire	Random Sampling	Max. 10 (in Nos)
03	Hospitals	All Hospitals with 100+ beds (must) or 50 – 100 beds	Questionnaire	Random Sampling	2 – 5 (in Nos)
04	School	Primary, Secondary, High school and government schools	Questionnaire	Random Sampling	2 – 5 (in Nos)
05	Slaughter Houses	Potential areas	Questionnaire	Random Sampling	2 – 3 (in Nos)
06	Commercial/ market areas	Potential areas (include questionnaires both for shopkeeper and customers)	Questionnaire	Random Sampling	5 – 10 (in Nos)
07	Industries	Potential areas	Questionnaire	Random Sampling	1 – 5 (in Nos)

Source: Proposed by the Consultants

5.3. 2. Existing SWM Situation Analysis

5 Existing SWM Situation Analysis is to done by taking into consideration the ground realities, local conditions, and assessment of the present sanitation situation. The following aspects are taken into consideration for developing technical options of sanitation:

(i) Analyze available secondary data on the city's demographics, service levels of SWM
(ii) Analyze survey result data on solid waste (collection, transportation and disposal including treatment of waste).
(iii) Analyze collected information on various schemes/ projects which are being implemented or planned for SWM operation
(iv) Analyze municipal financial health of ULB (including financial grants available from various state and national schemes such etc.), especially demand and collection of user charges, capital & O&M costs incurred / incurring for SWM services
(v) Analyze organizational roles and responsibilities, and monitoring and evaluation arrangements for the delivery of SWM services.
(vi) Analyzing legal framework for providing the SWM services

5.3. 3. Public Consultation at ULB Level

6 The results of the situational analysis will be presented through public consultation at ULB level involving all the residents, elected representatives and other stake holders including for validation of findings and for soliciting their suggestions. A list of recommendations and decisions arrived at in the consultation meeting shall be documented.

5.3. 4. Developing a Draft DPR

7 **Sub Task i: Developing Technological Options**

After analyzing the situation and elaborate consultations, the arrangements for suitable technological options, their operation and maintenance, etc shall be discussed and finalized in the following manner. The draft DPR will adopt following guidelines.

(i) Listing all the various technological options available in respect of the collection, treatment and disposal of SWM including mix of centralized and decentralized treatment options.
(ii) Providing techno–economic analysis of each option, including feasibility of implementation and its impact on the institutional and financial capacity of ULB.
(iii) Based on the above, the most feasible technology option(s) will emerge. The proposed option(s) includes the financials for capital investment, as well as post operation & maintenance.

8 **Sub Task ii: Preparation of Implementation Plan**

A 20-year horizon implementation plan (short/ medium/ long-term) & an immediate action plan (1-3 years) that will include a multi-year financial plan for implementing the SWM Project in a time-bound manner. The output of this phase will be an agreed plan outlining the priority actions & projects with an estimate of preliminary funding requirements in each sector. This included the following:

(i) Development of various strategies for implementation like financial strategy, IEC strategy, Capacity Building Strategies, Monitoring Strategies, O & M strategies etc.
(ii) Development of institutional Framework for implementation.
(iii) Undertake project costing and determination of funding sources

9 **Prepare the DPR considering for optimization of waste and its collection, transportation, segregation, processing and scientific disposal. In addition to the points laid down below:**

- The parameters laid down in SWM manual (CPHEEO), MSW Rules 2000 and Municipal Solid Waste (Management & handling) Rules 2016 shall be strictly adhered.
- Door to door collection for every household of the town has to be done daily in the morning hours (7 to 10 am) in each ULB.
- Strategic placement of bins at places where waste may be generating continuously.
- Asses the collection mechanism i.e. nature of vehicles, frequency of collection, manpower deployment etc. for D.T.D.C (Door to Door Collection).

- Collection mechanism for secondary collection from bins placed at strategic places.
- Transportation mechanism of waste from every ULB has to be done as per the requirements in such a way that the cost should be minimised, supported by comparative analysis of various options.
- Transportation mechanism of the waste after primary collection and secondary collection Treatment and disposal facility.
- Selection of optimum number of transfer station(s) if required. Temporary storage, if proposed, shall not be for more than 3 days of waste generation.
- Assess and consider the suitability of the land for temporary storage, segregation and processing activities at satellite station(s).
- Propose the waste processing technique to be deployed after a detailed comparative analysis, including operation and financial viability of various technological options available.
- Provide detailed design of all the necessary infrastructure required for solid waste management (ISWM) treatment and disposal facility.
- Assess capital cost associated with every infrastructure component i.e. cost of all the equipment, usable life of equipment etc.
- Assess detailed operation and maintenance costs during the project horizon of 20 years; the analysis should take into account, various factors such as manpower, fuel cost, maintenance cost, replacement of equipment, requirement of new equipment etc.
- Assess financial condition of ULBs involved, capturing their loan repayment capabilities (if required)
- Prepare complete financial modeling of project and estimated detailed calculations of tipping fee suggested along with the proposed escalations. The capital structure for the financial model shall be finalized after considering the financial condition of the ULBs.
- All the necessary sensitivities like approvals/clearances from state or central government or other department required for getting the approval for the capital structure shall be performed.
- Suggestion of the cross subsidized user charges to be levied in the ULBs and their revision horizons.
- Environmental issues as per the requirement and prevalent rules have to be addressed.
- Prepare Methodology and requirement for Information, Education and communication (IEC) activities and for bringing behavioural changes of the citizens, to be conducted by the ULB.
- Provide all the minimum technical specifications of all the equipment and infrastructure components

5.3. 5. Consultation at State Level

10 A workshop involving all the stakeholders, who have been part of the project preparation process, shall be organized at state level. The Draft DPR will be presented & discussed before the stakeholders of the ULB. The discussions will cover the feasibility and appropriateness of the proposals from the point of view of their implement ability in a time-bound manner. The recommendations of the stakeholders shall be documented and incorporated into the final version of DPR.

5.3. 6. Preparing Final DPR

11 The final version of the DPR was prepared after incorporating all comments and suggestions emerging from various Consultations.

5.3.7. Getting Approval of Final DPR

12 Providing all necessary support to ULB for getting the DPRs technically sanctioned from competent authority is a part within the scope of project.

Selection of the land fill site and concept of the Report

A stakeholder meeting was conducted on dated 15/11/2017 with the mayor, Commissioner and officials of the Municipal Corporation Amrawati for the concept of the detailed project report and for the selection of the site for the proposed Municipal Solid Waste Treatment plant. During the discussion it was suggested and agreed that at least three site should be proposed for the waste treatment looking to the operation and maintenance and transportation cost. Three site namely Sukhlia, Akoli Bypass and Badnera (pundeswar) was proposed for the landfill site. The entire three sites are Government land and the corporation has requested district authority for the handing over the site. The land is suitable for the waste treatment as per the guide line issued by the Swachh Bharat Mission Manual. The criteria for the selection of the site are as follows:-

Status of Land Available for Waste Processing and Disposal				
No.	**Details**	**Sukhli Depot.**	**Akoli ByPass**	**Badnera**
1	Current Use	Only Dumping	Not in use	Not in use
2	Area(in Hectare)	12	2.83	1.15
3	Survey Number	144	295/1, 295/2	26
4	Distance of processing facilities from city/town boundary(in Kms)	3	4	3
5	Distance from the nearest habitation(in Kms)	1	2	1
6	Distance from water body(in Kms	1	6	4
7	Distance from state/national highway(in Kms)	1	2	1
8	Distance from Airport(in Kms)	11	7	5
9	Distance from important religious places or historical monument(in Kms)	170	172	178
10	Whether it falls in flood prone area	No	No	No
11	Whether it falls in earthquake fault line area	No	No	No
12	Site is fenced	No	Yes	No
13	Lighting facility is available on site	Yes	No	No
14	Weigh bridge facility available	No	No	No
15	Storage Facility Available	Yes	No	No
Source: Analysis by the consultant on the basis of information provided by ULB.				

At present the Municipal Corporation Amrawati is managing solid waste by private operator in two steps (1) collection of the waste by door to door and transportation up to storage bins by one operator and (2) Transportation of waste from bins to dumping site by another operator. The Corporation has entered in to the contract for collection storage and transportation of the waste for the nine years. The necessary vehicles and machinery will be provided by the concerning operator, hence it was suggested that the proposed DPR should be prepared for the waste treatment and disposal only including bio mining at Suklia for the reclamation of the required land. The three sites mention above will be used for the waste treatment and the rejects of all the three sites will be disposed at proposed scientific landfill at Suklia. The Draft DPR was again presented and discussed before the official of the Municipal Corporation as well as the elected members of the council on dated 19/12/2017 and after few suggestions the draft DPR is prepared.

Table 36: **Ward wise Population Forecasting**

S.No.	Ward No.	Population 2011	Population 2018	Population 2028	Population 2038	Population 2048
1	1	27457	30949	36117	41497	47089
2	2	26952	30380	35453	40734	46223
3	3	30705	34610	40390	46407	52661
4	4	31005	34948	40784	46859	53173
5	5	29268	32990	38499	44234	50195
6	6	29597	33361	38932	44731	50759
7	7	27135	30586	35694	41011	46537
8	8	26829	30241	35291	40548	46012
9	9	20452	23053	26903	30911	35076
10	10	32235	36335	42403	48719	55284
11	11	28585	32220	37601	43202	49024
12	12	26930	30355	35424	40701	46186
13	13	27848	31390	36632	42089	47761
14	14	29870	33669	39292	45145	51228
15	15	32705	36864	43020	49428	56089
16	16	32004	36074	42098	48369	54887
17	17	31860	35912	41909	48152	54641
18	18	32501	36634	42752	49120	55739
19	19	30452	34325	40057	46024	52226
20	20	32518	36654	42775	49147	55770
21	21	32442	36568	42675	49032	55639
22	22	27707	31231	36446	41875	47518
	Total	**647057**	**729349**	**851147**	**977935**	**1109717**

Table 37: Word & Population covered in Zone-I

Zone-I (Shukhli depo.)							
S.No.	**Ward No.**	**area covered**	**Population 2011**	**Population 2018**	**Population 2028**	**Population 2038**	**Population 2048**
1	1	100%	27457	30949	36117	41497	47089
2	2	100%	26952	30380	35453	40734	46223
3	3	100%	30705	34610	40390	46407	52661
4	4	100%	31005	34948	40784	46859	53173
5	5	100%	29268	32990	38499	44234	50195
6	6	100%	29597	33361	38932	44731	50759
7	7	100%	27135	30586	35694	41011	46537
8	8	100%	26829	30241	35291	40548	46012
9	9	50%	10226	11527	13452	15456	17538
10	10	50%	16118	18168	21202	24360	27642
11	14	100%	29870	33669	39292	45145	51228
12	15	100%	32705	36864	43020	49428	56089
13	16	100%	32004	36074	42098	48369	54887
14	17	50%	15930	17956	20955	24076	27321
	Total		**365801**	**412323**	**481179**	**552855**	**627354**

Table 38: Word & Population covered in Zone-II

Zone-II (Akoli Bypass)							
S.No.	**Ward No.**		**Population 2011**	**Population 2018**	**Population 2028**	**Population 2038**	**Population 2048**
1	11	100%	28585	32220	37601	43202	49024
2	12	100%	26930	30355	35424	40701	46186
3	13	100%	27848	31390	36632	42089	47761
4	17	50%	15930	17956	20955	24076	27321
5	18	100%	32501	36634	42752	49120	55739
6	19	100%	30452	34325	40057	46024	52226
7	20	100%	32518	36654	42775	49147	55770
	Total		**194764**	**219534**	**256196**	**294359**	**334027**

Table 39: Word & Population covered in Zone-III

Zone-III (Nayi Basti Badnera)							
S.No.	**Ward No.**	**Area covered**	**Population 2011**	**Population 2018**	**Population 2028**	**Population 2038**	**Population 2048**
1	9	50%	10226	11527	13452	15456	17538
2	10	50%	16118	18168	21202	24360	27642
3	21	100%	32442	36568	42675	49032	55639
4	22	100%	27707	31231	36446	41875	47518
	Total		**86493**	**97494**	**113775**	**130723**	**148337**

Table 40: Zone Wise population forecasting

Zone wise forecasted Population						
S.No.	**Zone No.**	**Population 2011**	**Population 2018**	**Population 2028**	**Population 2038**	**Population 2048**
1	1	365801	412323	481179	552855	627354
2	2	194764	219534	256196	294359	334027
3	3	86493	97494	113775	130723	148337
	Total	**647058**	**729351**	**851150**	**977937**	**1109718**

Table 41: % Population cover in zone

S.No.	Zone No.	Population 2018	House Hold	Expected Waste Generation in MT	% Population covers
1	1	412323	87172	164.93	56.53
2	2	219534	46413	87.81	30.1
3	3	97494	20612	39	13.37
	Total	**729351**	**154197**	**291.74**	**100.0**

Table 42: Stages of project

	Phase-I		**Phase-II**		**Phase-III**	
	@ 2028		**@ 2038**		**@ 2048**	
Zone No.	**Forecasted Population**	**Waste Generation (in MT)**	**Forecasted Population**	**Waste Generation (in MT)**	**Forecasted Population**	**Waste Generation (in MT)**
1	481179	192.47	552855	221.14	627354	250.94
2	256196	102.48	294359	117.74	334027	133.61
3	113775	45.51	130723	52.29	148337	59.33
Total	**851150**	**340.46**	**977937**	**391.17**	**1109718**	**443.88**

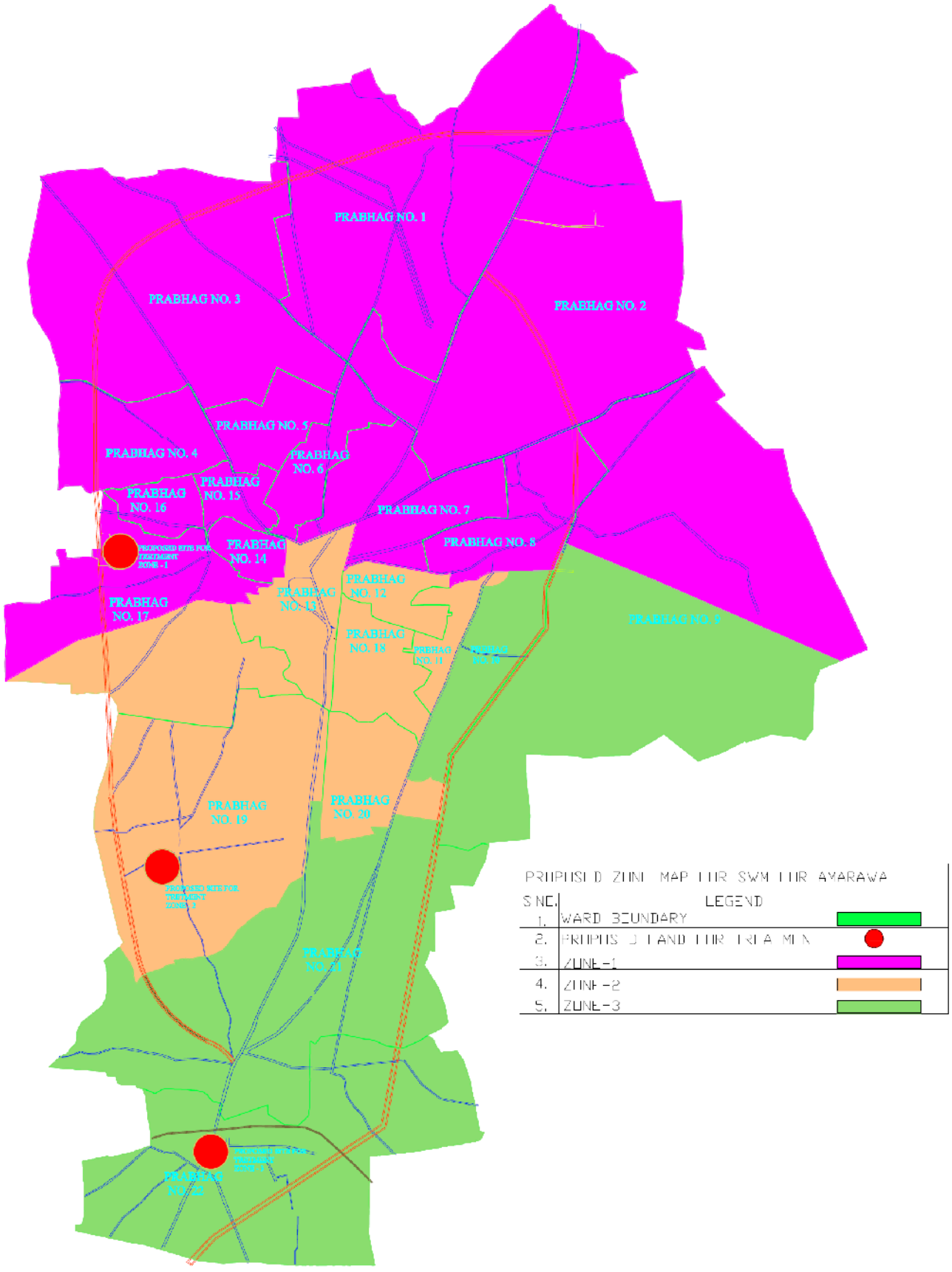
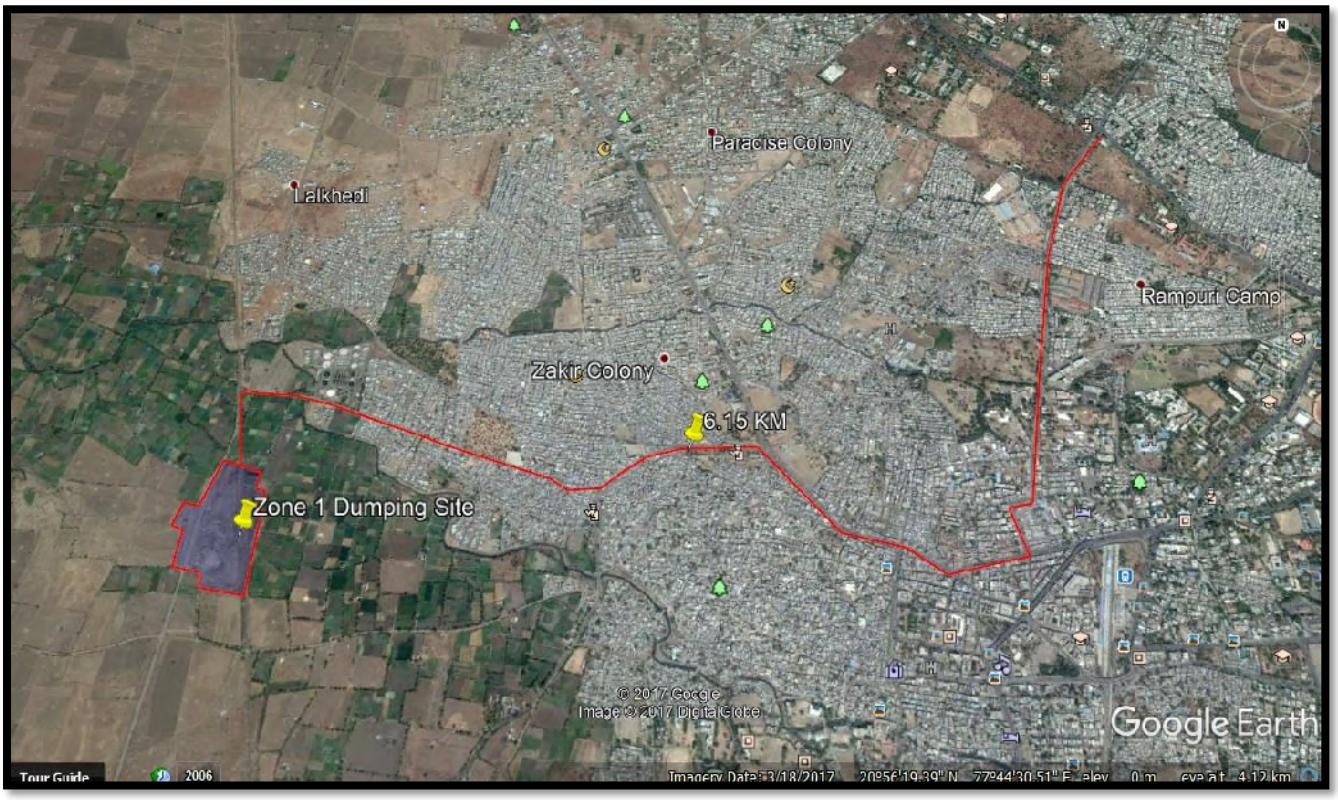


Figure 2: Zone Map of Amravati

1. Zone no. 1

3 Location of dumping site (Zone 1, Amravati Municipal Corporation)



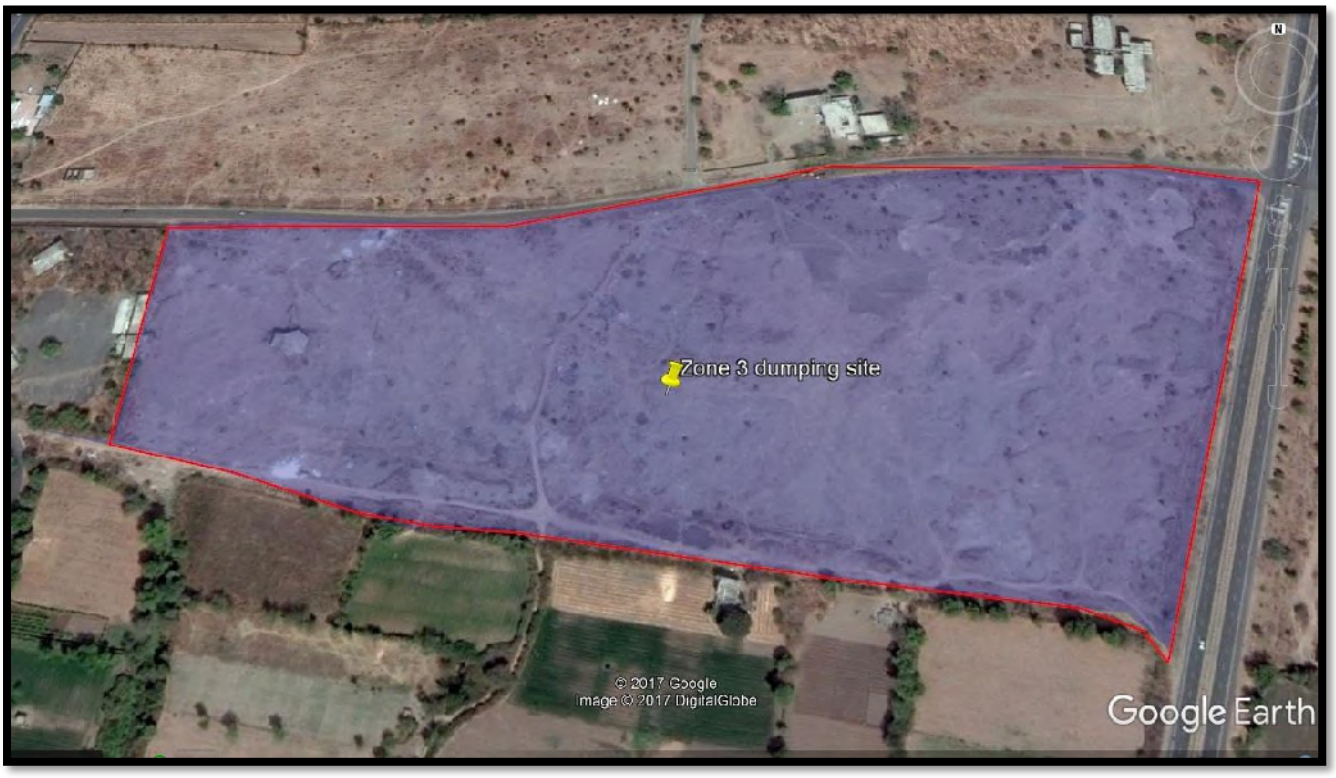
4. Position of Dumping site (Zone 1, Amravati Municipal Corporation) from the City

2. Zone no. 2

5. Location of dumping site (Zone 2, Amravati Municipal Corporation)

6 Position of Dumping site (Zone 2, Amravati Municipal Corporation) from the City

3. Zone no. 3



7 Location of dumping site (Zone 3, Amravati Municipal Corporation)

8 Position of Dumping site (Zone 2, Amravati Municipal Corporation) from the City

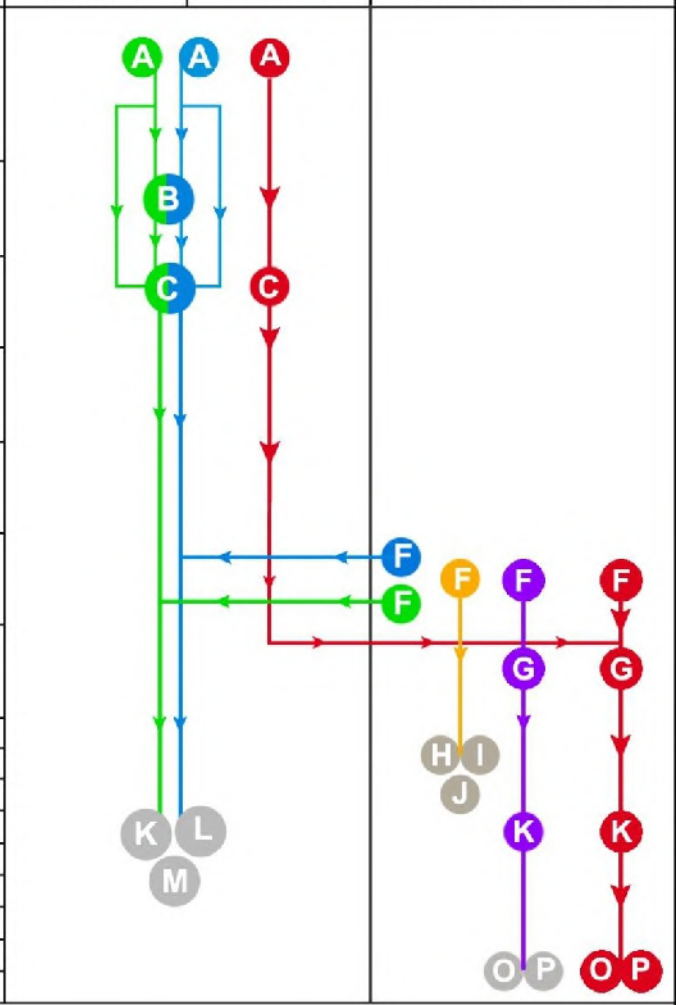
6. Proposed MSWM System

6.1. Approach to Collection, Transportation, Treatment &Disposal of MSW

The SWM Rules, 2016 defines separate processing of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non-biodegradable wastes including recyclable waste, non- recyclable combustible waste, sanitary waste and non-recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes.

It is proposed to adopt an integrated approach for total solid waste management from primary collection to its ultimate disposal, including all the intermediate steps. The proposed system is focussed on providing full and uniform coverage of the entire ULB population across all categories of settlements and income groups. The aim is to enable ULB to move toward providing 100% coverage under door-to-door collection service and segregation. The broad visible and feasible solutions for MSW Management is described below.

Proposed Segregated Waste Flow System

SWM System		SWM Activity	CODE	Door To Door Collection Operations		Sweeping & Drain Cleaning Operations
				Residential Establishments	Non-Residential Establishments	Roads & Drains Along Residential & Non-Residential Establishments
01. Primary Waste Storage, Collection & Transportation	Primary Storage of Waste	Segregated Waste Storage in 2 Bin System (One Green for Wet Waste and One Blue for Dry Waste). Hazardous and Sanitary Waste should be stored seperately	A			
	Primary Waste Collection & Transportation	Door to Door Collection through Non Motorised Collection Equipments	B			
		Door to Door Collection and Transportation through Motorised Vehicles	C			
		Waste Trasnsportation through Motorised Vehicles	D			
02. Secondary Waste Storage, Collection & Transportation	Secondary Storage of Waste	Waste Storage in Community Bins placed for Pedestrian Use.	E			
	Secondary Waste Collection	Road Sweeping through Manual or Mechanical Means	F			
	Secondary Waste Transportation	Waste Transportation through Motorised Vehicles	G			
03. Processing and Disposal	Onsite Processing & Disposal	Storage OR Transportation	H			
		Processing	I			
		Disposal	J			
	Offsite Processing & Disposal	Storage OR Transportation	K			
		Processing	L			
		Disposal	M			
	Separate Processing & Disposal	Storage OR Transportation	N			
		Processing	O			
		Disposal	P			

Type of Waste
Wet Waste
Dry Waste
Yard Waste or Garden Waste
Construction/Demolition Waste, Sweeping Debris
Hazardous and Sanitary Waste

From the above figure, it is proposed to have to different type of waste management system. One is the Door to Door Operation which the waste to be collected from doorstep and transported to Processing or disposal site. And the other is the management of waste through sweeping and drain cleaning operation which involves the waste to be collected from roads and transported to the processing or disposal site. It is proposed that the Hazardous and sanitary waste collected from D2D Operation and Sweeping operations will have a separate processing and disposal facility. It is also proposed that the Yard Waste or Garden waste from parks and gardens should be collected separately and treated on-site to make optimum use of such wastes and also to minimise the cost of its collection and transportation.

The entire proposed MSWM system is broadly categorised into two waste generators as under.

- **Residential Establishments** like Single Households, Colonies, Large apartment complexes and multi-storeyed buildings etc and

- **Non-Residential Establishments** like buildings occupied by the Central government departments or undertakings, State government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes etc. having an average waste generation rate exceeding 100kg per day; the ULB may define the per day quantum of waste per generator that would classify as bulk waste

Based on the quantification survey carried. It is assumed that the ULB will have to generate waste generated at 400 GPCD. The following table shows projected solid waste generation for designing the MSWM System.

Table 43: Projected Waste Generation for Zone-I

Details Year	Base Year 2018	Year 2023	Year 2028	Year 2033	Year 2038	Year 2043	Year 2048
Projected Population *(in Nos.)*	412321	446396	481177	516663	552854	589751	627353
Projected MSW *(in MT per Day)*	164.93	178.56	192.47	206.67	221.14	235.9	250.94
Source: Proposed by the consultant							

Table 44: Projected Waste Generation for Zone-II

Details Year	2018	2023	2028	2033	2038	2043	2048
Projected Population *(in Nos.)*	219533	237676	256194	275088	294357	314002	334023
Projected MSW *(in MT per Day)*	87.81	95.07	102.48	110.04	117.74	125.6	133.61
Source: Proposed by the consultant							

Table 45: Projected Waste Generation for Zone-III

Details Year	2018	2023	2028	2033	2038	2043	2048
Projected Population *(in Nos.)*	97493	105550	113773	122164	130721	139446	148337
Projected MSW *(in MT per Day)*	39	42.22	45.51	48.87	52.29	55.78	59.33
Source: Proposed by the consultant							

Based on the Waste Characterisation Test undertaken, the projected MSW for the Base year i.e. 2018 can be classified as under.

Table 46: Projected Waste Generation based on Waste Characterisation for Zone-I

Waste Type			Composition based on actual survey (in %)	Actual Quantity (in MT) for Base Year
Biodegradable	**1**	Green Waste and Kitchen Waste	44.65	73.64

Table 46: Projected Waste Generation based on Waste Characterisation for Zone-I				
Waste Type			**Composition based on actual survey (in %)**	**Actual Quantity (in MT) for Base Year**
Recyclable	**2**	Plastic, Polythene, Tetra Packs Etc	9	14.84
	3	Paper and Card Board	9.66	15.93
	4	Metal	0.12	0.20
	5	Glass	0.36	0.59
Non-Biodegradable	**6**	Textiles	5.32	8.77
	7	Horticulture Waste & Wooden Piece	6.62	10.92
	8	Leather, Rubber Etc	0.17	0.28
Inert	**9**	Inert (Silt, Debris, Construction & Demolition Waste etc)	24.1	39.75
			Total	**164.93**
Source: Proposed by the consultant				

Table 47: Projected Waste Generation based on Waste Characterisation for Zone-II				
Waste Type			**Composition based on actual survey (in %)**	**Actual Quantity (in MT) for Base Year**
Biodegradable	**1**	Green Waste and Kitchen Waste	44.65	39.21
Recyclable	**2**	Plastic, Polythene, Tetra Packs Etc	9	7.90
	3	Paper and Card Board	9.66	8.48
	4	Metal	0.12	0.11
	5	Glass	0.36	0.32
Non-Biodegradable	**6**	Textiles	5.32	4.67
	7	Horticulture Waste & Wooden Piece	6.62	5.81
	8	Leather, Rubber Etc	0.17	0.15
Inert	**9**	Inert (Silt, Debris, Construction & Demolition Waste etc)	24.1	21.16
			Total	**87.81**
Source: Proposed by the consultant				

Table 48: Projected Waste Generation based on Waste Characterisation for Zone-III				
Waste Type			**Composition based on actual survey (in %)**	**Actual Quantity (in MT) for Base Year**
Biodegradable	**1**	Green Waste and Kitchen Waste	44.65	17.41
Recyclable	**2**	Plastic, Polythene, Tetra Packs Etc	9	3.51
	3	Paper and Card Board	9.66	3.77
	4	Metal	0.12	0.05
	5	Glass	0.36	0.14
Non-	**6**	Textiles	5.32	2.07

Biodegradable	**7**	Horticulture Waste & Wooden Piece	6.62	2.58
	8	Leather, Rubber Etc	0.17	0.07
Inert	**9**	Inert (Silt, Debris, Construction & Demolition Waste etc)	24.1	9.40
			Total	**39**
Source: Proposed by the consultant				

6.1.1 Segregated Storage of Waste at Source

The SWM Rules, 2016 defines segregation as sorting and separate storage of various components of solid waste namely biodegradable wastes including agriculture and dairy waste, non-biodegradable wastes including recyclable waste, non- recyclable combustible waste, sanitary waste and non-recyclable inert waste, domestic hazardous wastes, and construction and demolition wastes. Segregating waste at source ensures that waste is less contaminated and can be collected and transported for further processing. Segregation of waste also optimises waste processing and treatment technologies. It results in high proportion of segregated material that could be reused and recycled, leading to less consumption of virgin material. Indirectly, source segregation also impacts climate change and has many other advantages which are discussed in the section below.

Refer Clause 4 Duties Of Waste Generators &Clause 15 Duties And Responsibilities Of Local Authorities Solid Waste Management Rules, 2016 -Requirements On Source Segregation (Attached in Annexure).

Waste should be stored at the source of waste generation until it is collected for disposal by ULB staff or appointed contractors. It is essential to segregate wastes into **wet (kitchen waste); dry (recyclables and other waste); and domestic hazardous waste (CFL, tube light, etc.).**

This is commonly referred to as BASIC segregation. Segregation of MSW needs to be linked to primary collection of waste from the doorstep and given high priority by the ULBs. Wet waste must not be tied in plastic bags. Clean containers can be washed daily like any cooking-pot. Or use a quarter-newspaper sheet as liner. The following table details out the method for segregation of waste.

Table 49: Method for Segregation of Waste at Source

BASIC SEGREGATION					
Wet waste (Green bin)	**Dry waste (Blue bin)**				**Domestic Hazardous**[1]
	With further sub-segregation BASIC+				
Food wastes of all kinds, cooked and uncooked, including eggshells and bones, flower, fruit and waste including juice, vegetable peels and household garden/plant wastes. Soiled tissues, food wrappers, paper towels; fish and meat	Paper cardboard and cartons	Containers & packaging of all kinds excluding those containing hazardous materials Compound packaging (tetra pack, blisters etc.) Plastics	Rags Rubber Wood Discarded clothing Furniture	Metals Glass (all kinds) Inert, House sweepings and inert's (not garden, yard or street sweepings)	- E-waste[2] - Hazardous wastes[3] - Household medical waste[4] - Batteries from flashlights and button cells. Lights bulbs, tube lights and Compact Fluorescent Lamps (CFL) Car batteries, oil filters and car care products and consumables
Source: CPHEEO Manual 2016					

[1] *To be stored and disposed separately.*

[2] *Printer & printer cartridges, electronic parts and equipment and others*

[3] *Chemicals and solvents and their empty containers, paints, oil, lubricants, glues, thinners and their empty containers, insecticides, pesticides and herbicides and their empty containers, photographic chemicals, bleaches and household kitchen & drain cleaning agents*

[4] *Thermometers and other mercury containing products, discarded medicines, injection needles and syringes after destroying them both, sanitary wastes and diapers (should be collected daily)*

The following is the possible actions for Segregated Waste Storage &Management of Different Kind of Waste.

Table 50: Actions for Storage of Different Types of Segregated Waste

No	Waste Type/ Generators	Action for Management
1	Household Level	Dry waste, wet waste, and domestic hazardous waste should be stored in separate garbage bins, of appropriate capacity and colour. The colour of the garbage bins should be in accordance with the SWM Rules, 2016; wet waste is to be placed in a covered green bin and dry waste in a covered Blue bin. Because the rule does not specify the colour of the bins for storage of domestic hazardous waste, urban local bodies (ULBs) should decide on an appropriately coloured bin. A container of 12–15l (0.015 m3) capacity for a family of five members should be adequate for each dry and wet waste, if collection takes place daily. However, a household may keep larger containers or more than one container for waste produced in 24 hours, having a spare capacity of 100% to meet unforeseen delays in clearance or unforeseen extra loads. If dry waste is not collected daily, container capacity must be enlarged accordingly. Wet waste collection bins should be washed by the household each time they are emptied. It is not desirable to use plastic bags in waste bins.
2	Large Complex, Building Apartments and Gated Community	Large waste collection bins for wet waste and dry waste should be placed at a convenient location. Residents should deposit segregated waste in the respective bins either themselves or through organised door-to-door collection system of the resident welfare association (RWA) or community-based organisation (CBO). Specification of bins and containers shall be compatible with primary collection vehicles, if applicable. Typical specifications for garbage bins used in apartment complexes and large buildings are the following: 60l (25kg) bins suitable for 12households, 120l (50kg) bins for 24 households, 240l (96 kg) bins for 48households, etc. that are of standard quality, high-density polyethylene (HDPE), injection or to moulded, ultraviolet (UV) tested, durable and could withstand rough handling, and compatible with lifting mechanism on primary collection vehicle, if applicable. The specific size of the containers depends on the number of connected households and the frequency of collection.
3	Commercial & Institutions[5]	Shops, commercial establishments, and businesses should store segregated waste on-site. Whereas vegetable and flower market waste generators should deposit their waste in conveniently located large green bins for preferable utilization of waste on site or as directed by ULB. Number and capacity of bins required may be computed by considering quantity of waste to be stored before collection plus an additional 100% storage. Storage bins should be compatible with the primary collection system to avoid multiple handling of waste. Typically, four-wheeled, HDPE, injection or rotomolded, international standard, UV tested bins or metal bins of different capacities—e.g., for 240 l (96 kg), 600 l (270–280 kg), 770 l (315–350 kg), 1,100 l (449–495 kg)—may be used for bulk waste. These bins should be compatible with auto lifting by standard universal bin lifting devices on mobile compactors and other vehicles.
4	Public Places	Litter bins may be provided at important streets, markets, public places, tourist spots, bus and railway stations, large commercial complexes, etc. at a distance ranging from 25m to 250m depending on the local conditions. The collection from these bins should be segregated into wet and dry waste.
5	Yard Waste or Garden Waste	SWM Rules, 2016 suggests that horticulture waste from parks and gardens should be collected separately and treated on-site to make optimum use of such wastes and also to minimise the cost of its collection and transportation. Such waste may be stored on-site and the municipal authority may facilitate its periodic collection, either through the SWM department or by involving the private sector. The skip bins or containers shall be of a standard design and amenable to automatic hydraulic lifting and unloading by a transport vehicle. This waste should

[5] *means and includes buildings occupied by the Central government departments or undertakings, State government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes having an average waste generation rate exceeding 100kg per day; the ULB may define the per day quantum of waste per generator that would classify as bulk waste*

Table 50: Actions for Storage of Different Types of Segregated Waste		
No	**Waste Type/ Generators**	**Action for Management**
		not be mixed with domestic waste.
6	Construction & Demolition (C&D) Waste	C&D waste collection bins should be provided at Community / ward Levels by the Urban Local Body. The responsible owner / generator should ensure that such waste do not get mix with other waste and should be stored at C&D bins, collected and disposed separately. The removal of C&D waste would be responsibility of the service provider. The waste generators would inform the service provider for removal of the debris. The service provider would collect the debris and dispose the same into low lying areas of the city. It is proposed that the removal of debris could be charged for generating revenues for ULB.
7	Domestic hazardous[6]waste	Should be handed over separately to the waste collectors or at the domestic hazardous waste deposition centres for safe disposal as specified by the municipal authority or through the relevant retail trade (e.g., for batteries).All waste generators should be directed by the municipal authority to not mix special waste including domestic hazardous waste with either the wet waste or dry waste, but to store such wastes separately and hand-over to the special waste collection centres, which should be established by the urban local bodies or to collection schemes through retail trade. The Rules have further directed ULBs to establish one domestic hazardous deposition/delivery centre per 20 sq. km.
8	Sanitary waste[7]	Should be wrapped in the pouch provided by the manufacturer and put in separate bags and handed over separately on daily basis to the waste collector in order to minimise the manual handling of sanitary waste. Ensure that such waste are handled as directed by the State Pollution Control Board or committees. Upon collection of sanitary waste, it is should be preferably disposed in biomedical or MSW incinerators, as applicable to the local context or as directed by the MPCB.
Source: CPHEEO Manual 2016		

6.2. Segregated Waste Collection& Transportation System

As mentioned earlier, the segregated Waste Collection and transportation will involve two basic type of operation (1) Door to Door (D2D) Operation and (2) Sweeping and Drain Cleaning Operation.

6.2.1. Collection & Transportation for D2D Operations

Unless door-to-door collection of segregated waste and transportation of segregated waste is practiced by the ULBs, source segregation by waste generators will not be successful and remain a meaningless exercise. Doorstep collection of waste is the best way to keep waste off the road, to provide waste pickup services to all and to keep wet and dry wastes unmixed.

(A) Proposed Design Criteria, Assumptions and Technical Specifications

[6] e.g., batteries; used CFLs; tube lights; chemical, paint, and insecticide containers; etc.

[7] e.g., diapers, sanitary napkins, tampons, incontinence sheets and any other similar waste

The following are the Proposed Design Criteria, Assumptions and Technical Specifications.

Table 51: Proposed Infrastructure & Design Criteria for D2D Operations			
No	**Type of Proposed Vehicle / Equipments**	**Design Criteria & Assumptions**	**Technical Specifications**
1	DTDC Equipment- Hand Cart	One unit will cover 150 Households in entire day. Assumed Life Period is 5 Years. 15% additional reserved to be kept. Proposed to Cover 5% of the Total HH located on Narrow streets where Motorised Vehicles cannot go.	Providing & supplying at site segregation handcart of following capacity including all taxes and one year insurance with third party coverage etc, complete. Segregation handcart having capacity 360 Litre. Made from Angle 25mm×03mm & orca sheet of 16 Guage, two nos. iron wheel of 500mm dia made from 32mm flat with double ball bearings of 6205 and one removable segregation partition with 3 equal provision for segregation & rear side door to unload waste with handle and lock provision, one front wheel of HDPE 200 mm complete with two shade color and ready for use as per requirement as directed by engineer in charge. **(SoR Reference:- MJP/ DSR 2016-2017)**
2	DTDC Vehicle- 4 Wheel Mini Tipper	One unit will cover 1300 Households in entire day. Assumed Life Period is 10 Years. 25% additional reserved to be kept. Proposed to Cover 100% of the Total HH. Also the waste collected by Handcarts will be transported in the proposed vehicles.	Supply vehicle with twin compartments of TATA, Mahindra, Force & equivalent manufacturers of 1.7 Cu. M capacity including all taxes and one year Insurance with third party coverage etc, complete as directed by engineer in charge **(SoR Reference:- MJP/ DSR 2016-2017)**
Source: Proposed by the consultant on the basis of CPHEEO Manual			

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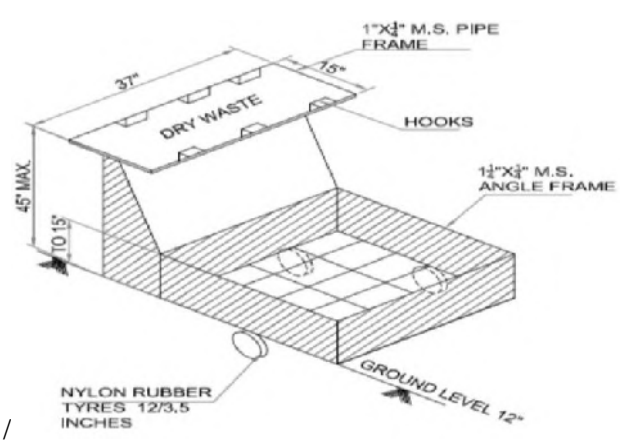


Recommended **PUSHCART** design

Recommended 4 WHEELGARBAGE TIPPER design

(B) Demand Gap Assessments

The following are the Demand Gap Assessment for D2D Operations (Collection and Transportation).

Table 52: Demand Gap Assessment for D2D Operations (Collection & Transportation) for Zone-I								
No.	**Details**	**Base Year (2018)**	**2023**	**2028**	**2033**	**2038**	**2043**	**2048**
1	**DTDC Equipment- Hand Cart**							
	Gross Requirement	34	37	39	42	45	48	51
	Existing Available	**0**	0	0	0	0	0	0
	Additional Requirement	34	3	2	3	3	3	3
	Replacements		34	37	39	42	45	48
	To be Procured	**34**	**37**	**39**	**42**	**45**	**48**	**51**
2	**DTDC Vehicle- 4 Wheel Mini Tipper**							
	Gross Requirement	84	91	98	106	113	120	128
	Existing Available	**0**	84	7	98	8	113	7
	Additional Requirement	84	7	7	8	7	7	8
	Replacements			84		98		113
	To be Procured	**84**	**7**	**91**	**8**	**105**	**7**	**121**
Source: Proposed by the Consultant								

Table 53: Demand Gap Assessment for D2D Operations (Collection & Transportation) for Zone-II								
No.	**Details**	**Base Year (2018)**	**2023**	**2028**	**2033**	**2038**	**2043**	**2048**
1	**DTDC Equipment- Hand Cart**							
	Gross Requirement	18	20	21	23	24	26	28
	Existing Available	**0**	0	0	0	0	0	0
	Additional Requirement	18	2	1	2	1	2	2
	Replacements		18	20	21	23	24	26
	To be Procured	**18**	**20**	**21**	**23**	**24**	**26**	**28**
2	**DTDC Vehicle- 4 Wheel Mini Tipper**							
	Gross Requirement	45	49	53	56	60	64	68
	Existing Available	**0**	45	4	53	3	60	4
	Additional Requirement	45	4	4	3	4	4	4
	Replacements			45		53		60
	To be Procured	**45**	**4**	**49**	**3**	**57**	**4**	**64**
Source: Proposed by the Consultant								

Table 54: Demand Gap Assessment for D2D Operations (Collection & Transportation) for Zone-III

No.	Details	Base Year (2018)	2023	2028	2033	2038	2043	2048
1	**DTDC Equipment- Hand Cart**							
	Gross Requirement	8	9	10	10	11	12	13
	Existing Available	**0**	0	0	0	0	0	0
	Additional Requirement	8	1	1	0	1	1	1
	Replacements		8	9	10	10	11	12
	To be Procured	**8**	**9**	**10**	**10**	**11**	**12**	**13**
2	**DTDC Vehicle- 4 Wheel Mini Tipper**							
	Gross Requirement	20	22	24	25	27	29	31
	Existing Available	**0**	20	2	24	1	27	2
	Additional Requirement	20	2	2	1	2	2	2
	Replacements			20		24		27
	To be Procured	**20**	**2**	**22**	**1**	**26**	**2**	**29**
Source: Proposed by the Consultant								

6.2.2. Collection & Transportation for Street Sweeping and Drain Cleaning Operations

ULB are required to clean all public places and roads in residential and commercial areas, including street sweeping and cleaning of surface drains. Conducting street sweeping and drain cleaning operations, cleaning and removal of waste from public places, office areas, administrative areas, markets, parks and other general places are considered for collection of waste using sweeping mechanism.

The waste from street sweeping operations is expected to consist of silt and stone materials which are suggested to be not included with solid waste flow. The municipal waste generated in street sweeping would be included in solid waste flow but the debris collected during street sweeping would be collected using tractor trolley. The sweeping debris would be disposed into low lying areas along with the construction and demolition waste. The ULB should identify the low-lying areas of the city and insist that the service providers or the waste generators do not dispose the construction waste elsewhere in the town.

(A) Proposed Design Criteria, Assumptions and Technical Specifications

The following are the Proposed Design Criteria, Assumptions and Technical Specifications.

Table 55: Proposed Infrastructure & Design Criteria for Sweeping and Drain Cleaning Operation

No	Type of Proposed Vehicle / Equipments	Design Criteria & Assumptions	Technical Specifications
1	Garbage Tipper Mounted on Three Wheeler (1 MT Capacity)	To be used to transport Street Sweeping Waste (The Debris and C&D waste assumed to be 25% of the Total Generated Waste). Assumed Life Period is 10 Years. 25 % additional reserved to be kept. Waste Carrying Capacity 1 MT per Unit.	Providing erecting garbage tipper mounted on three-wheeler i.e. TATA, Ashoka layland, Mahindra or any other equivalent for having capacity of Garbage up to 1 ton. It should be operated through 12 V Battery operated power pack hydraulic system. Rates are inclusive of all taxes and one year guarantee with third party coverage etc, complete as directed by Engineer-in-Charge.
Source: Proposed by the consultant on the basis of CPHEEO Manual			

*Recommended **4 WHEELGARBAGE TIPPER** design for Street Sweeping Waste Collection*

*Recommended **3 WHEELGARBAGE TIPPER** design for Street Sweeping Waste Collection*

(B) Demand Gap Assessments

The following are the Demand Gap Assessment for D2D Operations (Collection and Transportation).

Table 56: Demand Gap Assessment for Sweeping & Drain Cleaning Operation (Collection &Transportation) for Zone-I								
No.	**Details**	**Base Year (2018)**	**2023**	**2028**	**2033**	**2038**	**2043**	**2048**

Table 56: Demand Gap Assessment for Sweeping & Drain Cleaning Operation (Collection &Transportation) for Zone-I								
No.	**Details**	**Base Year (2018)**	**2023**	**2028**	**2033**	**2038**	**2043**	**2048**
1	**Vehicles- 3 Wheel Auto Tipper**							
	Gross Requirement	74	80	86	93	99	106	113
	Existing Available	**74**	74	6	86	7	99	7
	Additional Requirement	0	6	6	7	6	7	7
	Replacements			74		86		99
	To be Procured	**0**	**6**	**80**	**7**	**92**	**7**	**106**
Source: Proposed by the Consultant								

Table 57: Demand Gap Assessment for Sweeping & Drain Cleaning Operation (Collection &Transportation) for Zone-II								
No.	**Details**	**Base Year (2018)**	**2023**	**2028**	**2033**	**2038**	**2043**	**2048**
1	**Vehicles- 3 Wheel Auto Tipper**							
	Gross Requirement	40	43	46	50	53	57	60
	Existing Available	**40**	40	3	46	4	53	4
	Additional Requirement	0	3	3	4	3	4	3
	Replacements			40		46		53
	To be Procured	**0**	**3**	**43**	**4**	**49**	**4**	**56**
Source: Proposed by the Consultant								

Table 58: Demand Gap Assessment for Sweeping & Drain Cleaning Operation (Collection &Transportation) for Zone-III								
No.	**Details**	**Base Year (2018)**	**2023**	**2028**	**2033**	**2038**	**2043**	**2048**
1	**Vehicles- 3 Wheel Auto Tipper**							
	Gross Requirement	18	19	21	22	24	25	27
	Existing Available	**18**	18	1	21	1	24	1
	Additional Requirement	0	1	2	1	2	1	2
	Replacements			18		21		24
	To be Procured	**0**	**1**	**20**	**1**	**23**	**1**	**26**
Source: Proposed by the Consultant								

6.2.3.Transfer Station if required, as per SWM Rules 2016

The following are the general rule of thumb for setting up a Transfer Station as per SWM Rules 2016.

- If the one-way travel distance to disposal is over 15 km or over 30 minutes, the need for transfer stations should be assessed.
- Transfer stations should be made only when the cost of direct haul in collection vehicles would outweigh the cost of supplemental haul in large bulk-haul transfer vehicles plus the cost of the supporting transfer system infrastructure at the transfer station and disposal site.

Looking at the above criteria, it can be concluded that no transfer station is required for the Urban Local Body as per SWM Rules 2016.

6.2.4. Summary of Resources required for Collection and Transportation

The following is the summary of requirements for Collection and Transportation of Waste for the base Year.

Table 59: Summary of Resources required for Collection and Transportation for Zone-I			
No.	Type of Activity	Proposed Equipments/ Vehicles	Proposed No. of Units (2018)
1	Door To Door Collection (DTDC) operations	DTDC Equipment- Hand Cart	34
2	Door To Door Collection (DTDC) operations	DTDC Vehicle- 4 Wheel Mini Tipper	84
3	Street Sweeping Operations	Vehicles- 3 Wheel Auto Tipper	0
Source: Consultant			

Table 60: Summary of Resources required for Collection and Transportation for Zone-II			
No.	Type of Activity	Proposed Equipments/ Vehicles	Proposed No. of Units (2018)
1	Door To Door Collection (DTDC) operations	DTDC Equipment- Hand Cart	18
2	Door To Door Collection (DTDC) operations	DTDC Vehicle- 4 Wheel Mini Tipper	45
3	Street Sweeping Operations	Vehicles- 3 Wheel Auto Tipper	0
Source: Consultant			

Table 61: Summary of Resources required for Collection and Transportation for Zone-III			
No.	Type of Activity	Proposed Equipments/ Vehicles	Proposed No. of Units (2018)
1	Door To Door Collection (DTDC) operations	DTDC Equipment- Hand Cart	8
2	Door To Door Collection (DTDC) operations	DTDC Vehicle- 4 Wheel Mini Tipper	20
4	Street Sweeping Operations	Vehicles- 3 Wheel Auto Tipper	0
Source: Consultant			

6.2.5. Environmental Safeguardsfor Collection and Transportation

The following checklist of measures is prescribed for operation of waste collection and transport system.

(A) General

- Encourage use of containers or bags for waste segregation at the point of collection for each household and establishment
- Implement a regular collection schedule with sufficient frequency to avoid accumulation of garbage.
- Use vehicles appropriate for the geographic conditions and waste types to maximize reliability of collection.
- Encourage separation of recyclable materials at the point of generation, so that the collection points do not become sorting points for informal sector waste pickers.
- Cover collection and transfer vehicles along the entire route of transport to avoid windblown litter.
- Clean vehicles used for waste hauling before transportation of any goods, including compost.
- Encourage residents to put waste out at designated times and locations.
- Where possible, blocking off access to dumping sites and fining illegal dumpers.
- All vehicles in operation should be registered and regularly maintained to mitigate vehicular emissions and cleaned to avoid odor while leaving the site and compliance to Central Motor Vehicles Rules, 1989 (Driving License, Vehicle Registration fitness certificates and PUC)

(B) To control dust, Bio-aerosols and odors

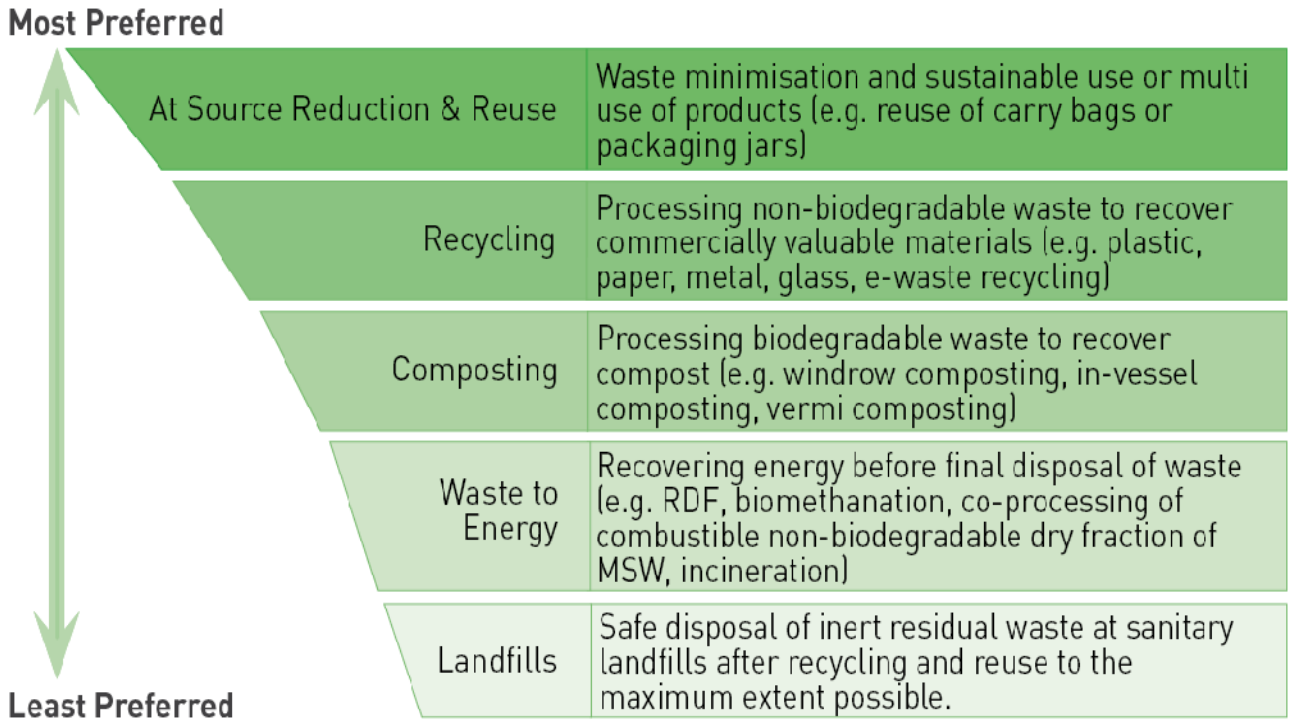
- Establishing frequent waste collection schedules
- Instituting a washing program for waste collection vehicles and for company-owned waste collection and transfer containers
- Promoting the use of bags to reduce the odors from soiling of waste collection and transport equipment

(C) To control vehicle emissions

- Optimize waste collection routes to minimize distance travelled and overall fuel use and emissions
- Implement transfer stations for small vehicles to consolidate waste into large vehicles for transportation to a treatment or disposal facility if required
- Vehicle owners should regularly follow the instructions provided by the manufacturer for maintenance of engine, along with the mechanical maintenance for the safe operation of the vehicle, including proper tire pressure,
- Instructions to drivers on benefits of driving practices in order to reduce accidents and fuel consumption.

6.3. Processing of MSW

Municipal solid waste management (MSWM) and adoption of processing technologies depend largely on the quantity and characteristics of the total waste generated in an urban local body (ULB). The least preferred option of ISWM is disposal of waste in landfills, where no landfill gas capture is planned. Normally, landfills that integrate the capture and use of methane are preferred over landfills that flare landfill gas. However, Indian laws and rules do not permit disposal of organic matter into sanitary landfills and mandate that only inert rejects (residual waste) from processing facilities, inert street sweepings, etc. can be landfilled. In cases where old dumps are to be closed, there is a possibility of capturing methane gas for further use, which may be explored. However, repeated burning of the waste significantly decreases the potential of capturing methane.



The sections below elaborate on MSWM processing technologies options in the order as specified by the ISWM hierarchy. And as mentioned, waste minimisation should be the prime objective of any waste management system in ULBs.

6.3.1. Overview of Different types of Processing Technology

Selection of appropriate technology is one of the key considerations for success of a waste management system for a particular town/city besides taking consideration of other aspects like resource recovery, environmental soundness, financial support, involvement of stakeholders/ public and institutional capability. Many waste processing technologies are available and in practice world-wide. However, efficiency of a particular technology depends upon the criteria for which it is designed and planned. The major criteria considered for selection of technologies are the waste quantity, waste characteristics, physical properties and composition of wastes, availability of land, social factors, capital investment, duration of treatment, products market, etc. A wrong selection of waste processing technology can cause failure of the entire waste management system leading to bad economics and environmental cost. Selection of Best Available Technology for Waste Processing The available waste processing technologies can be broadly divided into two categories-

- **Biological treatment and**
- **Thermal treatment.**

The Biological treatment process is accomplished by allowing to micro-organisms to degrade waste components by creating conducive environment for growth of microbial organisms. In the biological process, the biodegradable organic portion of waste is broken down into gaseous products (CO_2, Methane gas, etc) and water molecules leaving behind carbon rich by product called compost. The biological activities depend upon several criteria- C/N ration, pH value, moisture content, supply of oxygen, etc. Biological processes for waste treatment can be further divided into two categories-

(a) Aerobic treatment (in presence of Oxygen) and
(b) Anaerobic treatment (absence of Oxygen).

The thermal process of treatment is applied to destroy the harmful potential of wastes together with energy recovery. In this process, the waste components are incinerated in controlled oxygen supply so that maximum heat energy can be recovered without causing the air pollution. During incineration, the waste undergoes chemical changes to release gaseous by product, water vapour along with heat energy. The heat energy can be utilized for generating electricity through boiler. The efficiency of heat recovery depends upon the calorific value of incinerated waste. Details of the available technologies are discussed below;

- **Aerobic Composting:** Composting is the process of aerobic decomposition of biodegradable organic matter in a warm, moist environment by the action of bacteria, yeasts, fungi and other organisms. MSW in India has an initial C/N ratio of around 30:1, ideal for decomposition. The organisms involved in stabilization of organic matter utilize about 30 parts of carbon for each part of nitrogen. Compositing requires approx. 25 m2 area per ton of MSW (only for windrow formation for 21 days composting and maturity yard for 30 days stabilization). The additional area required is for machinery, packing and storage. Facilities also required for recycling and treatment of effluent (leachate) and sanitary landfill for rejects (inert materials, sludge from ETP). The compost products should comply with the standards prescribed in the SWM Rules, 2016.

- **Vermi–composting**: Vermi compost is the end-product of the breakdown of organic matter by particular species of earthworm. Vermi compost is a nutrient-rich, natural fertilizer and soil conditioner, cultured on a specially made vermi-bed. The earthworm species most often used are Eudrilluseugineae, Eiseniafoetida or Lumbricusrubellus. It can treat any organic waste, not appreciably oily, spicy, salty or hard and that do not have excessive acidity and alkalinity. The C/N ratio preferred is 30:1 where, carbon matter comes from brown matter (wood products, saw dust, paper etc) and nitrogen from green matter (food scraps, leaves etc). Overabundance of greens generates ammonia. The moisture content of 40-55% is preferable and maintained by covering the tank with wet sack and sprinkle water as required. Vermi-compositing can be done in tank with size of 4m x 1m x 0.5m for waste input of 10kg/day of semi decomposed waste.

- **Bio-methanation /Bio-waste**: Derived Fuel It is a process based on anaerobic digestion of organic matter in which microorganisms break down biodegradable material in the absence of oxygen. The

process is widely used to treat wastewater sludge and organic wastes because it provides volume and mass reduction of the input material. It produces methane and carbon dioxide rich biogas suitable for energy production and hence, is a renewable energy source. The nutrient-rich solids left after digestion can be used as a fertilizer. It generally treats Sorted organic fraction only (highly putrescible) for better gas yield. Fibrous organic matter is undesirable as the anaerobic microorganisms do not easily break down woody molecules such as lignin, cellulose, hemicelluloses, etc.. Preferred C/N ratio is 25-30. Moisture content should be >50% which implies on feed, gas production, system type, system efficiency. Area requirement for bio-methanation is approximately 25 m2 per tonne of MSW. Extra area required for machinery, gas containing and storage facilities.

- **Incineration**: The incineration of MSW involves combustion of waste leading to volume reduction (90-95%) and recovery of heat to produce steam that in turn produces power through steam turbines (Bhide and Sunderesan 1983). Basically, it is a furnace for burning waste and converts MSW into ash, gaseous and particulate emissions and heat energy. The efficiency of the technology is linked to the waste characteristics and their properties such as moisture content and calorific values. It requires high temperature of the order of 800-1000o C and sufficient air and mixing of gas stream. The minimum temperature for burning carbonaceous wastes to avoid release of smoke and prevent emissions of dioxin and furans is 850o C. Depending on the nature of wastes and the operating characteristics of combustion reactor, the gaseous products derived from the combustion of MSW may include carbon dioxide (CO_2), water (H_2O, flue gas), oxygen (O_2), nitrogen oxides (NOx), sulphur dioxide (SO_2) and small. Minimum Moisture content should be 1500 kcal/kg. Incineration of chlorinated plastic should be avoided as far as possible. The emission standards are prescribed in SWM Rules, 2016.

- **Plasma pyrolysis**: Plasma pyrolysis or plasma gasification is a waste treatment technology that gasifies matter in an oxygen-starved environment to decompose waste material into its basic molecular structure. The process demands high electrical energy for creating high temperature by an electrical arc gasifier. It does not combust the waste as incinerators do. In a plasma converter, the arc breaks down waste primarily into elemental gas and solid waste (slag). The objective of the process is to generate net electricity, depending upon composition input wastes, and to reduce the volumes of waste being sent to landfill sites. Relatively high voltage, high current electricity is passed between two electrodes, spaced apart, creating an electrical arc where temperatures as high as 13,871°C is reached. The temperature from one meter arc can reach up to ~4000°C. At these temperatures most types of waste are broken into basic elemental components in a gaseous form, and complex molecules are atomized - separated into individual atoms. Depending on the input waste (plastics tend to be high in hydrogen and carbon), gas from the plasma containment can be removed as Syngas, and may be refined into various fuels at a later stage. There has been issues of plasma systems regarding high temperatures requirement and short life of liners which are highly susceptible to both chlorine attack and to local variability in such high temperatures, not likely to last more than a year in service.

- **Pelletization /Production of Refuse Derived Fuel (RDF):** It is basically a processing method for mixed MSW, which can be very effective in preparing an enriched fuel feed for thermal processes like incineration or for use in industrial furnaces. It is a fuel produced by shredding municipal solid waste (MSW) and steam treatment for reducing moisture content. RDF consists largely of organic components of municipal waste such as plastics and biodegradable waste, which are compressed into pellets, bricks, or logs. Non-combustible materials such as glass and metals are removed during the treatment process with an air blow or other mechanical separation processing. The MSW collected for disposal is tested for its moisture content and when the moisture content is more than 35- 40%, it requires drying to produce fuel pellets with reasonable calorific/heating values. The reduction in moisture can be done artificially or by natural sun drying. The sun dried garbage is then uniformly fed into a rotary drying system i.e. Hot Air Generation burning oversize garbage or other fuel to further bring down the moisture level to about 10-12%. RDF is an alternative to WTE and is a potential waste management technology.

6.3.2. Criteria for Selection of Processing Technology

(A) Comparison of Various Processing Technology

The following are Indicative Criteria for Selection of Appropriate Technology or Combination of Technologies.

Technical Criteria for Selection of Appropriate Technology or Combination of Technologies

CRITERIA	WINDROW COMPOSTING	VERMICULTURE	BIOMETHANATION	RDF	INCINERATION	INTEGRATED SYSTEM (COMPOSTING + RDF)
Facility Location (As per CPCB Guidance)	To be located as per the buffer zone criteria mentioned below.	To be located as per the buffer zone criteria mentioned below.	To be located as per the buffer zone criteria mentioned below.	To be located as per the buffer zone criteria mentioned below.	To be located as per the buffer zone criteria mentioned below.	To be located as per the buffer zone criteria mentioned below.
Buffer Zone (No Development Zone)	500 m for facilities dealing with 100 TPD or more of MSW 400 m for facilities dealing with 75–100 TPD of MSW 300 m for facilities dealing with 50–75 TPD of MSW 200 m for facilities dealing with 10–50 TPD of MSW No buffer zone for facilities dealing upto 5 TPD of MSW No buffer zone for decentralised plants handling less than 1 TPD of MSW (but adequate environmental controls are required)					
Natural environment	Composting in coastal/high rainfall areas should have a shed to prevent waste from becoming excessively wet and thereby to control leachate	Composting in coastal/ high rainfall areas should have a shed to prevent waste from becoming excessively wet and thereby to control leachate generation.				
Land Requirement	For 300 TPD of segregated/presorted MSW: 5 ha of land including buffer zone is required.	For 20 TPD of segregated/ pre-sorted: 1.25 ha.	For 300 TPD of segregated/ pre-sorted MSW: 2.5 ha of land is required.	For 300 TPD of segregated/ pre-sorted MSW: 2 ha of land is required.	For 1000 TPD of mixed waste: 5 ha of land including buffer zone	For 300 TPD of segregated/presorted MSW: 6 ha of land (Note: Many of the processing units are
Waste Quantity which can be managed by a single facility.	500 TPD	1 TPD to 20 TPD. Higher capacities can also be planned if adequate land is available along with other necessary arrangements.	1 TPD at small scale to 500 TPD at larger scale	100 TPD of segregated waste and above	1000 TPD and above of mixed waste (smaller plants are not techno-economically viable, given the cost of required environmental control equipment and boiler technology	500 TPD and above (economically sustainable above 500 TPD plant size)
Requirement for Segregation prior to technology	High	Very High	Very High	High	High – Feed stock should be free from inerts and low on moisture content	Moderate because both dry and wet fractions are utilized
Rejects	About 30% including inerts if only composting is done. 15%* rejects with RDF, if located in the same plant. [Note: Rejects from mixed waste fundamentally depends on the presence of non- biodegradable material which are taken out during pre-sorting stage]	About 30% including inerts [Note: Rejects from mixed waste fundamentally depends on the presence of non- biodegradable material which are taken out during pre-sorting stage]	About 30% from mixed waste [Note: Rejects from mixed waste fundamentally depends on the presence of non- biodegradable material which are taken out during pre-sorting stage]	Around 30% from mixed waste [Note: For incoming mixed waste for RDF & Incineration Non combustible material is taken out during the sorting stage]	Around 15% [Note: For incoming mixed waste for RDF & Incineration Non combustible material is taken out during the sorting stage]	Approximately 15-20% [Note: Process rejects from segregated waste should be less than 10%]
Potential for Direct Energy Recovery	No	No	Yes	No (feed stock for energy recovery)	Yes	Yes
Technology Maturity	Windrow composting technique is well established.	Community scale projects are successful	Feasibility for biodegradable waste is proven. In case of mixed waste, appropriate presorting has to be carried out.	Quality of RDF should be based on end use, no clear consensus on quality requirements. Burning of RDF below 850°C for less than 2 seconds residence time can pose serious problems of health and environment. Rules regulating characteristics of RDF and guidelines for appropriate use not	Technology is available. However constraints of low calorific value, high moisture content and high proportion of inert waste should be considered while undertaking the project commercially.	Composting and RDF combined facility is an upcoming phenomenon. Utilization of rejects from compost plants as input material for RDF production and sale. Rejects from integrated system are 15-20% as opposed to 30-40% from individual system.

Financial Criteria for Selection of Appropriate Technology or Combination of Technologies

CRITERIA	WINDROW COMPOSTING	VERMICULTURE	BIOMETHANATION	RDF	INCINERATION	INTEGRATED SYSTEM (COMPOSTING + RDF)
Indicative Capital Investment	Typically 15-20 Cr for 500 TPD plant	1 Cr. per 20 TPD	Typically 75-80 Cr for 500 TPD plant	Typically 17-20 Cr for 500 TPD plant	Very high capital, operating and maintenance costs. 15 Cr. per MW power production.	Typically 25-30 Cr for 500 TPD plant) without a mechanical Hot Air Generator (HAG) for drying . However, moisture can be reduced by biodrying with much less cost but slightly reduced efficiency.
Market for product/ By-Product	Quality compost compliant with FCO 2013 has a good market. IPNM Task Force (vetted by Supreme Court, 1 Sep 2006) has recommended co-marketing of 3-4 bags of compost with 6-7 bags of inorganic fertilizer.	Good market potential in urban and rural areas. However it is not adequately explored for bulk marketing.	So far, there is no appropriate system for pricing biogas. The system of pricing according to kerosene equivalent puts biogas at a disadvantage. At present, there is lot of interest in conversion of biogas into automotive fuel by stripping CO2. In this case, equivalent pricing with power/CNG again puts biogas at a disadvantage because of scale of economy.	Good market potential for RDF. In small cities, RDF plants only become feeders of RDF to large RDF based power plants and cement plants.	Good potential of energy generation if power purchase agreements are made reflecting true cost of production including O&M costs	Quality compost compliant with FCO 2009 has a good market. Good market potential for RDF. In small cities, RDF plants only become feeders of RDF to large RDF based power plants and cement plants.

Environmental Criteria for Selection of Appropriate Technology or Combination of Technologies

CRITERIA	WINDROW COMPOSTING	VERMICULTURE	BIOMETHANATION	RDF	INCINERATION	INTEGRATED SYSTEM (COMPOSTING + RDF)
Concerns for toxicity of product	The final product is generally applied to soil and used as manure. Can contaminate the food chain if compost is not meeting FCO norms.	The product is generally safe as worms cannot endure significant contamination of raw materials. FCO Standards are to be met with.	The final product is generally applied to soil and used as manure. Can contaminate the food chain if compost is not meeting FCO norms.	-	-	The final product is generally applied to soil and used as manure. Can contaminate the food chain if compost is not meeting FCO norms.
Leachate Pollution	Potential exists. Varies with the climate of area and seasonal variation. In relatively dry seasons, leachate can be recirculated into the windrow to contain loss of nutrients and also pollution potential. In high rainfall areas, the windrows need to be covered either temporarily or permanently to control leachate generation. However, the design of the shed should be such that good natural ventilation is maintained.	Insignificant quantities at low waste volumes per vermi-pit.	High if not treated appropriately	Low	High potential of leachate at the receiving pit.	Potential exists. Varies with the climate of area and seasonal variation. In relatively dry seasons, leachate can be recirculated into the windrow to contain loss of nutrients and also pollution potential. In high rainfall areas, the windrows need to be covered either temporarily or permanently to control leachate generation. However, the design of the shed should be such that good natural ventilation is maintained.
Atmospheric pollution	Low (dust, aerosol etc.). Odour issues.	Low. Odour issues.	Low. Leakage of biogas. Odour issues	Low to moderate (dust, aerosols). Very high if RDF is not burnt at required temperature. Odour issues.	Very high if emissions not managed properly. Fly ash should be disposed safely in an engineered landfill. (Emissions due to incomplete combustion of municipal refuse contain a number of toxic compounds, dioxins and furans, requiring appropriate emissions control systems)	Moderate, require appropriate emission control systems (Air emission include acid gases, dioxins and furans)
Other	Fire and safety issues to be taken care of	Fire and safety issues to be taken care of	Fire and safety issues to be taken care of	Presence of inappropriate material in the RDF (chlorinated plastics). Fire and safety issues to be taken care of.	Disposal of bottom ash/slag. Fire and safety issues to be taken care of.	Presence of inappropriate material in the RDF (chlorinated plastics). Fire and safety issues to be taken care of.

Managerial Criteria for Selection of Appropriate Technology or Combination of Technologies

CRITERIA	WINDROW COMPOSTING	VERMICULTURE	BIOMETHANATION	RDF	INCINERATION	INTEGRATED SYSTEM (COMPOSTING + RDF)
Labour Requirement	Labour intensive	Labour intensive	Less Labour intensive	Labour intensive (based on current practice).	Non labour intensive but requires considerable technical capacity,	Labour intensive but requires considerable technical capacity
Predominant skills for Operation and Management	Technically qualified and experienced, and semi-skilled staff.	Technically qualified, experienced and semi-skilled staff.	Technically qualified and experienced staff	Technically qualified and experienced staff	Technically qualified and experienced staff	Technically qualified and experienced staff and semi-skilled.

The Waste Specifications of MSW for Various Type of Waste Processing Technologies is given below.

Table 62: Waste Specifications for Various Type Of Waste Processing Technologies

S. No.	Method	MSW characteristics	C/N ratio	pH Control	Temperature required	Moisture Content
1	Composting	Sorted organic fraction of MSW, preferable with same rate of decomposition	Between 25 – 50 initially. Release of ammonia and impeding of biological activity at lower ratios	7 – 7.5 (optimum). Not above 8.5 to minimize nitrogen loss in the form of ammonia gas	50-55°C for first few days and 55- 60°C for the reminder composting period. Biological activity reduces significantly at higher temperature	55% (optimum)
2	Incineration	MSW with calorific value as high as possible ; Volatile matter >40%; Fixed carbon<15%; Total inert <35%	calorific value as high as possible;> 1200 kcal/kg	–	850°C to 1400°C	As minimum as possible; <45%
4	Pyrolysis			6.5-8.5 (optimum)	elevated temperatures 700°C-900°C	
5	Gasification				Temperature greater than 1000°C	
6	Bio-methanation	Sorted organic fraction only; Higher the putrescibility, better is the gas yield; Fibrous organic matter is undesirable as the anaerobic microorganisms do not break down woody molecules such as lignin	25-30 (preferable)	Acidogenic bacteria through the production of acids reduce the pH of the tank. Methanogenic bacteria operates in a stable pH range and temperature	Mesophilic bacteria act optimally around 37°-41°C or at ambient temperatures between 20°-45°C. Thermophilic bacteria act optimally around 50°-52° and at elevated temperatures up to 70°C. Mesophiles are more tolerant to changes in environmental conditions and hence more stable, but thermophiles act faster.	>50%; Implications on feed, gas production, system type, system efficiency
7	Vermi composting	Any organic waste which are not appreciably oily, spicy, salty or hard and that do not have excessive acidity and alkalinity	30:1 (preferred). Brown matter (wood products, saw dust, paper etc) is rich in carbon and green matter (food scraps, leaves etc) in nitrogen.	Slightly alkaline state preferable. Correction by adding small dose of calcium carbonate	20 – 30oC	40 -55% preferable; cover the tank with wet sack and sprinkle water as required

Source: Analysis by the consultant

(B) General Rule of Thumb for Selection of Processing Technology

The quantity of waste generation plays vital role in selection of waste processing technologies. Vermi-composting and Biogas plants are capable of handling effectively up to 30 Tonne/per day and suitable for small towns. Aerobic composting plants are found operational up to 500 Tonnes/day. The waste-toEnergy plants are found cost-effective for processing waste 500 Tonnes/day and above.Waste characteristics such as C/N ratio, moisture content, calorific value, etc. indicate the treatment technology to be adopted. The desirable C/N ratio for composting is 30:1 with moisture content 50-60%.; otherwise, the parameters are maintained by addition of some selected wastes. The desirable calorific value of waste considered for incineration should not be less than 1500 Kcal/kg (SWM Rules, 2016). The desired calorific value of waste can be achieved practicing effective segregation of wastes. However, multiple technologies can be selected for a city for processing solid wastes in an integrated way depending upon the quantity and characteristics of wastes as under.

Table 63:Options for Available integrated Technologies as per waste quantity generation

S. No	Population range	Waste Generation TPD	Composition	Technological options
1	Above 2 Million	>1100 TPD	Biodegradables 35 to 50 %	IWP comprising -BM +CC+ RDF. W to E plant for power, based on: gasification, pyrolysis, incineration and mass burning. RDF to cement industry Plastic to fuel oil
2	1 M to 2 Million	550 to 1100 TPD	Biodegradables 40 to 55 %	IWP comprising -BM +CC+ RDF. W to E plant for power, where wastes exceeds 500 TPD based on: gasification , pyrolysis, incineration and mass burning. RDF to cement industry Plastic to fuel oil
3	1 Lakh to 10 Lakh	30 to 550 TPD	Biodegradables 40 to 55 %	IWP-BM, CC + RDF as feed stock to power plant / cement industry. Plastic to fuel oil
4	50,000 to 1 Lakh	10 to 30 TPD	Biodegradables 45 to 60 %	BM, VC or CC RDF
5	Less than 50,000	Less than 10	Biodegradables 45 to 65 %	BM,VC / CC and RDF
6	Hill towns	State capitals	Biodegradables 30 to 50 %	BM, CC / RDF as feed stock. Plastic to fuel oil

Source: Analysis by the consultant
*IWP- Integrated Waste Plant, BM- Bio methanation, VC- Vermi compositing, CC- Chemical Conversion, RDF Refused Drive Fuel

Given the propensity of organic waste to contribute to environmental pollution in more ways than one, composting, which would mitigate the impact of uncontrolled decomposition of organic MSW should be adopted by ULB.The choice of composting technology depends on a number of criteria which include quantity of waste to be processed, land requirement, climatic conditions, stability, energy requirements, financial implications, monitoring requirements, and aesthetic issues. Table below gives a brief overview of different composting technologies.

Table 64:Summary of Different Composting Technologies

Parameters	Windrow composting	Static	In-vessel	Vermi composting
General	Simple Technology	Effective for farm and municipal use	Large- scale systems for Commercial applications	Suitable for quantities less than 50 TPD generation of mixed MSW
Amount of waste treated	1 ton-500 tons per Module	1 ton-500 tons per module	1 ton-300 tons per module	1 ton- 50 tons
Land Requirement	8 ha – 500 TPD	5 ha - 500 TPD (Less land required given faster rates and effective pile	4 ha - 500 TPD (Very limited land due to rapid rates and continuous operations)	2 ha: 50 TPD

Table 64:Summary of Different Composting Technologies				
Parameters	**Windrow composting**	**Static**	**In-vessel**	**Vermi composting**
		volumes)		
Time	8 weeks	5 weeks	3 weeks (3-5 days in vessel; 3 weeks to mature)	8 weeks
Ambient Temperature	Not temperature sensitive	Not temperature sensitive	Not temperature sensitive	Temperature sensitive (30- 40°C ideal range; 35-37°C specific to particular earthworm sp.)
Energy Input	Moderate	Moderate (2-3 hours aeration)	High	Low
Financial Implications	Moderate	Costly	Very Costly	Moderate. Purchase of exotic Earthworms suitable for MSW composting are expensive
Odour/ Aesthetic Issues	Odour is an issue if turning is inadequate	Moderate. Odour can occur but controls can be used such as pile insulation and filters on air system	Minimum. Odour can occur due to equipment failure or system design failure	None
Source: Analysis by the consultant (Source: Manual of MSW, May 2014) Annexure-I				

"Due to the constraints in the availability of suitable land for disposal of waste and the steadily rising cost, the system for waste management has to be designed in such a manner that land requirement can be minimized. This can be achieved by resorting to resource recovery/treatment systems, which would reduce the quantum of waste, required to be land-filled. In view of the low calorific value of the garbage and the relatively high organic content, quantum of waste, composting should be the most suitable technology, over the years it has been found that the vermin-compost commands a much better price than compost, prepared by the aerobic windrow composting process. It is therefore proposed that an aerobic compost plant and a vermin-compost plant should be established in view of the simplicity of technology, maintenance, skill requirement and relatively low investment cost."

6.3.3. Process Design for Proposed Processing Plant

The following key Activities / Processes are proposed for the processing plant.

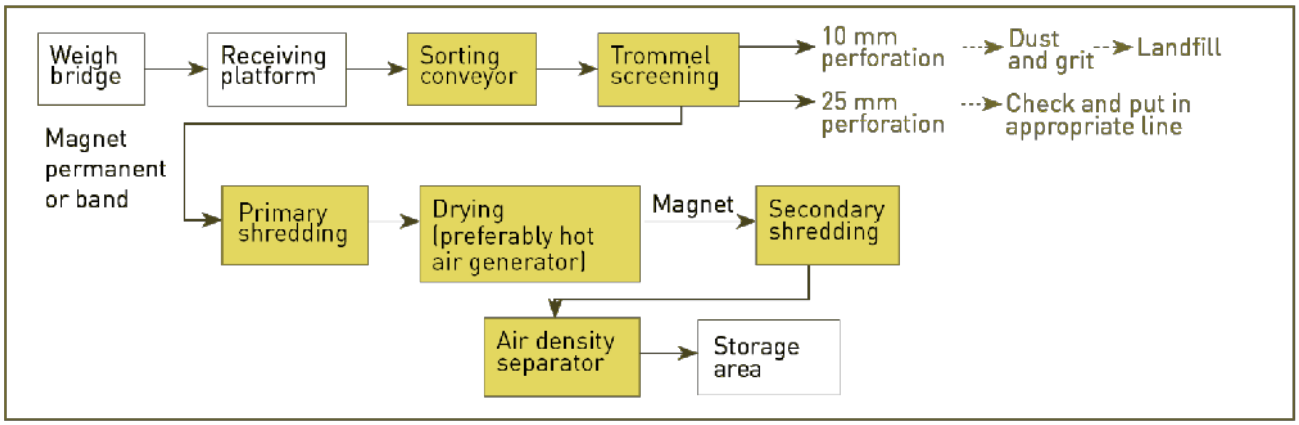
- **Material Recovery Facility and Pre-sorting Facility (for Dry and Wet Waste)**
- **Windrow Composting (For Wet Waste consisting of Biodegradable)**

The following are the detailed process design for the proposed Processing Plant.

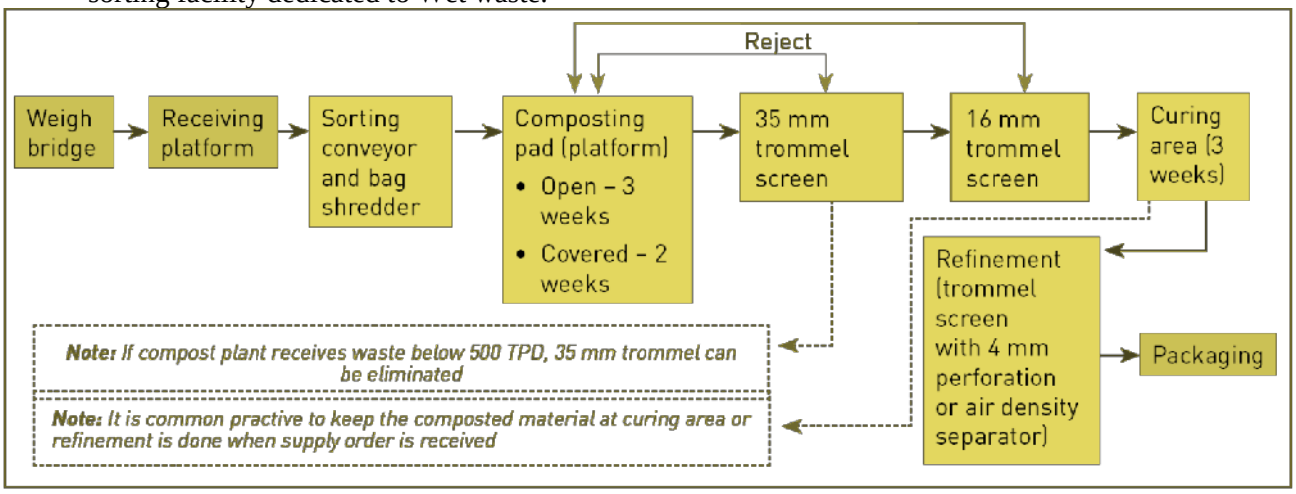
[A] MATERIAL RECOVERY FACILITY AND PRE-SORTING FACILITY

- **For Dry waste stream:** Dry segregated material is received in a mixed form consisting of a combination of fibres (paper, card board, mixed paper, magazines, etc.) and commingled containers (plastic, glass, metal, etc.), among other materials. The first stage of processing typically uses manual labour or equipment that separate material into various streams (fibre, paper, plastic, containers, etc.). These recyclables are also sorted by using automated machines when quantities to be handled are

large. Below is a flowchart depicting the indicative MRF and pre-sorting facility dedicated to dry waste.



- **Wet waste stream:** To compost biodegradable or wet waste, the wet waste that is segregated either at the source should be further pre-processed before being placed in windrows. The pre-processing is carried out at the composting facility. Below is a flowchart depicting the indicative MRF and pre-sorting facility dedicated to Wet waste.



MRF units employ varying combinations of manual and mechanical processes, based on the type of facility, availability of equipment, labour availability, and associated cost implications. MRF units employing manual labour for sorting operations have relatively lower costs, but may also operate at lower efficiencies compared with mechanical sorting facilities. An MRF unit, depending on the level of complexity, will consist of a combination of units in varying degrees of mechanisation (as shown in above figure).

- **Pre-sorting:** Bulky and contaminated wastes hamper further sorting or processing in the facility; mechanical or manual pre-sorting is essential to separate out these wastes. Manual sorting results in higher labour costs and lower processing rates. Manual sorters remove bulky waste as the waste passes along a conveyor belt, which carries the pre-sorted waste to the mechanised sorting unit of the facility.

- **Mechanical sorting:** Mechanical processes based on principles of electromagnetics, fluid mechanics, pneumatics, etc. are used to segregate the different waste streams in the pre-sorted waste. Mechanical processes require specialised equipment for segregation of commingled municipal waste. Mechanical sorting typically employs the following processes:

  - **Screening:** Screening achieves an efficient separation of particles into two or more size distributions. Two types of screens are used in MRF centres disc screens and trommels.
  - **Ferrous metal separation:** In the second stage, electromagnets are used for separating heavy ferrous metals from mixed waste.

- **Air classification:** The residual waste stream is passed through an air stream with sufficient velocity to separate light materials from heavy material, specifically for separating out lightweight plastics and paper from the mixed stream. Three types of air classifiers may be employed: (i) horizontal air classifier, (ii) vibrating incline air classifier, and (iii) incline air classifier. Heavy or bulky plastics are sorted out either in the pre-processing line (manually) or in the "detect and routing" systems, employed at later stages of material recovery.
- **Non-ferrous metal separation:** The non-ferrous metal separator segregates zinc, aluminium, copper, lead, nickel, and other precious metal from commingled waste. An eddy current separator removes non-ferrous items from the commingled waste based on their electrical conductivity.
- **Detect and route system:** This system separates various grades of paper, plastics, and glass, which are not sorted out in the air classifier. This system works in two stages. The first stage employs programmed optical sensors to determine the nature of different materials. In the second stage, based on information received from the sensor, sorted material is routed to appropriate bins bidirectional air jets.
- **Size reduction:** Sorted materials after segregation are usually too large for further use or processing; they should be reduced to smaller sizes.
- **Baling:** Sorted and sized material is baled for further processing or use.

The following are the Different Processes or Stages and Equipment Employed in a Material Recovery Facility.

Table 65:Equipmentsin a Material Recovery Facility

Process or stages	**Available Equipment in Market**
Pre-sorting material handling equipment	Belt conveyor, Screw conveyor, Apron conveyor, Bucket elevator, Drag conveyor, Pneumatic conveyor, Vibrating conveyor, Debagger etc.
Ferrous metal separation	Magnetic separator and screening
Screening	Disc Screening, Trommels
Air classification	Horizontal air classifier, Vibrating inclined air classifier, Inclined air classifier etc.
Non-ferrous metal separation	Rotating disk separator, Eddy current separator etc.
Size reduction	Can densifier, Can flattener, Glass crusher, Plastic granulator, Plastic perforator, Baler etc.
Pollution control	Dust collection system, Noise suppression devices, Odour control system, Heating, ventilating, and air conditioning (hvac)
Other fixed equipment	Fixed storage bin, Live-bottom storage bin, Floor scale for pallet or bin loads, Truck scale, Belt scale etc.

Source: Proposed by the consultant

[B] COMPOSTING

Composting is a process of controlled decomposition of the organic waste, typically in aerobic conditions, resulting in the production of stable humus-like product, i.e., compost. **Composting of the segregated wet fraction of waste is proposed.**

[B1] WINDROW COMPOSTING

It is necessary to compost the input material so that the heat generated during the initial phase gets dissipated and the material cools down to ambient conditions. Composting is best done in aerobic Windrow composting for faster results. Initially the waste has been kept in the windrow for 42 days where biological action takes place and results into reduction in volume of waste of total biodegradable waste. Detailed designing and area required for compost pad is given in following section.

Windrow composting process consists of placing the pre-sorted feedstock in long narrow piles called windrows that are turned on a regular basis for boosting passive aeration. The turning operation mixes the composting materials and enhances passive aeration. The following are the units operational in windrow composting.

Compost pad (Windrow platform): The pre-processed MSW is transferred onto the compost pad into windrows. The compost pad is an area where the windrows are stacked. The compost pad must be stable, durable, and impervious, so it is constructed with an appropriately designed combination of reinforced cement concrete (RCC) and plain cement concrete (PCC). The compost pad shall have a slope of about 1% to drain the excess water (storm water or leachate) from the windrows into a leachate collection tank. The leachate tank is placed in the lowest corner of the compost pad area. This leachate should be reused for recirculation of nutrients and for maintaining the moisture content of windrows.

The following factors have to be considered in the location and design of the composting pad:

- The base has to provide a barrier to prevent the percolation of leachate and nutrients to the subsoil and groundwater.
- The surface has to facilitate equipment movement even during wet weather conditions.
- The surface area has to accommodate waste for 5 weeks, with sufficient room for equipment to maneuver and an area to establish a static pile for curing compost.
- The height to base width ratio of the windrow depends basically on the angle of repose of the material. Windrows are typically trapezoidal in cross section.
- The space between windrows should be sufficient for movement of the windrow turning machine. Normally, it is 1–3 meters.

[B2] BIO GAS PLANT

The waste will be collected once a day with the help of available system, all this will be crushed thru crusher in one slurry receiving tank. Here the slurry is then properly mixed with the help of mixer pump and then will be pumped to biogas digesters. The material first sorted on conveyor belts to remove unwanted material.

In Slurry preparation tank this waste is mixed with water in 1:1 Proportion of water to prepare feed solution at desired concentration.

The proper mixing serves the following objectives,

- To prepare feedstock with uniform particle size and of desired concentration
- To prevent settling of solids in the bottom of tank.

Biomethanation -

The Biomethanation of food/ fruit / vegetable waste takes place in following three distinctive stages in the digester, The waste will be collected once a day with the help of available system, all this will be crushed thru crusher in one slurry receiving tank. Here the slurry is then properly mixed with the help of mixer pump and then will be pumped to biogas digesters.

The three stages are:

a. Hydrolysis
b. Acidification
c. Methane Generation

The basic gas production reaction is given below,

$$2C + 2H2O = CH4 + CO2$$

Mixing chamber –

Mixing chamber of 20 m3 volume is provided with one mixer, this will ensure proper mixing of crushed material and also floating material can be easily removed. Agitator with proper gear box assembly is provided.

Primary digester:

There will be one primary digester of volume 70 m3 , this will ensure removal of foreign material , easy removal of scum etc.

Digester:

There will be two nos. biogas digesters 850 cum slurry volume each to digest 5 ton waste in each plant. This will be KVIC Water jacket type modified digesters. The biogas produced here is initially collected in to the biogas holder and the digested slurry overflows through outlet chamber in to digested slurry tank. Generated Biogas will be stored in raw Biogas Balloon.

- **Biogas storage & Up gradation -**

Two Biogas balloon one for raw biogas and other for clean biogas storage. These balloons can be horizontal or vertical.

Raw biogas from balloon will be pressurized with the help of biogas blower and then send to scrubbing section. Biogas scrubber includes H2S scrubbers. These are proprietary scrubbers made in MS with FRP lining with packing material to remove moisture, corrosive H2S and partly CO2 from raw biogas before it fed to the biogas Generator to improve its life and efficiency. This clean biogas will then send to clean biogas balloon.

- The Biogas generated here will be utilized for power generation.
- **Biogas to Power Generation –**

Proposed biogas generator is a 100% biogas run engine generator with std. accessories.

Generated power can be utilized for any application (campus lightening, motors etc), agriculture application, etc.

- **Manure Generation –**

Digested slurry from biogas digester can be used in liquid farm if farm is nearby or can use in dried form, The fan separator can be installed for solid separation from liquid or by natural drying in drying pits which is rich in Nitrogen, humus and other Micronutrients. The digested slurry can be used for manuring crops or fish bonds. The application of such organic manure reduces the salinity/alkanity of the soil of the soil and increases the porosity and water holding capacity.

Crusher

Digester

Scrubbing System

Figure 5: Biogas Balloon

Figure 6: Biogas Engine

Technical Specifications Bio Gas Plant:

Components	Qty./Specifications/MOC
Unloading platform and sorting table	10 mx 10 m x 1 m ht, for segregation and removal of foreign material with transfer drain to crushers
Collection points for crusher / choppers	3 nos.
Mixing tank	20 m3 / 1 no / RCC
Inlet & outlet chambers	Two nos inlet chambers and one number out let chamber for each digester/ Brick work
Primary digester	70 m3/ RCC / Dia – 5 m, ht – 4 m
Biogas digester	2 nos./ 850 cum/each in RCC work 13 m dia x 6.5 m depth.
Digested slurry tank	1 no/100 cum/ RCC work
Dome fabrication work 14.5m dia x 1.15m height	2 No./ MS fabrication with FRP lining for Guide frames, Guide pipes, Gas Holder – MS plate, Angles, Flanges, Manhole (total 4 nos.)
Biogas Balloon shed	2 no/ for 200 cum/ brick / tin shed. (9 m x 9 m x 7 m)
Engine shed	1 no/brick work tin shed.
Crusher with choppers	1 no/ 5 HP - Chopper 2 nos / 10 HP crushers (1 stand by)
Slurry handling pump	4 no./ 5 HP
Biogas Blower	4 No./ 100 Cum/hr(One standby)
Biogas Balloon with accessories	2 Nos./ 200 cum each/Reinforced PVC rubber balloon with guide

Components	Qty./Specifications/MOC
Biogas up gradation with accessories	pipes, moisture traps, inlet and out let connections 1 set of Biogas cleaning system including 1 no. of H2S scrubber, Gas receiving tank, pressure gauge
100 % run Biogas Engine (with canopy)	1 nos. of Bio-Gas Generating set based on 100% biogas 100 KW each(One standby)
Control panel for mixer, Biogas blower, Biogas engine,	1 set std.
Gas flow meter –	100 m3/hr – 1 no
Biogas recirculation system	1 set
Cabling	Upto change over switch only , cable upto units control panel in client scope
Piping	UPVC/GI and HDPE – upto 200 ft only (Upto change over switch only)
Installation, Erection & commissioning	For 665 cum Biogas power project
400 T Dung collection and charging	For initial culture development.
Design, Drawing and supervision charges for civil and dome fabrication work	For 665 cum Biogas power project

Salient features:

Nature of Waste	**Food (Mixed) waste**
Quantity of waste	10 TPD
1 Ton Generates	60 Cum biogas
Biogas Generation	660-665 cum/day
Power Generation	750-800 kWh
Manure Generation	20,000- 30,000 lit/day
Water	≈ 10,000-15,000 Lit/day

6.3.4. Design of Processing Plant And Leachate Management

The following details out the design of various units of the proposed processing Plants.

(i) Design of Dumping Yard for Storage& Pre-sorting of Dry & Wet Waste

The following is the Design of Dumping Yard required for **Storage and Pre sorting of Waste.**

Table 66: Design of Dumping Yard For Storage & Pre sorting of Dry & Wet Waste for Zone-I

S. No.	Parameter	Quantity	Unit	Remark
For Dry Waste				
1	Amount of Dry Waste to be handled daily	106.53	TPD	*as per year 2028*
2	Provide waste storage area for 2 days	213.064	TPD	
3	Density of waste	446	Kg/m3	*As per Sampling*
4	Now, Total volume of stored waste	477.72	m3	
5	Assume height of hip	1.5	m	
6	Area required	318.48	m2	

Table 66: Design of Dumping Yard For Storage & Pre sorting of Dry & Wet Waste for Zone-I				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
7	Provide rectangular area having L : B	1.5		
8	Now, Width	14.57	m	
	Say	15	m	
9	Length	21.23	m	
	Say	22	m	
10	Area provided for waste storage	330	m2	
11	Provide clear space all around	1	m	
12	Total length	**24**	m	
13	Total width	**17**	m	
14	Total area required	**408**	m2	
15	Required Bearing capacity	**5.12**	**KN/m²**	*Soil Starta-Soft Rock (245 KN/m²) Hence Safe*
For Wet Waste				
16	Amount of Wet Waste to be handled daily	85.94	TPD	*as per year 2028*
17	Provide waste storage area for 2 days	171.876	TPD	
18	Density of waste	446	Kg/m³	As per Sampling
19	Now, Total volume of stored waste	385.37	m³	
20	Assume height of hip	1.5	m	
21	Area required	256.91	m²	
22	Provide rectangular area having L : B	1.5		
23	Now, Width	13.09	m	
	Say	14	m	
24	Length	18.35	m	
	Say	19	m	
25	Area provided for waste storage	266	m²	
26	Provide clear space all around	1	m	
27	Total length	**21**	m	
28	Total width	**16**	m	
29	Total area required	**336**	m²	
30	Required Bearing capacity	**5.02**	**KN/m²**	*Soil Starta-Soft Rock (245 KN/m²) Hence Safe*
Source: Consultant				

Table 67: Design of Dumping Yard For Storage &Pre sorting of Dry & Wet Waste for Zone-II				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
For Dry Waste				
1	Amount of Dry Waste to be handled daily	56.72	TPD	*as per year 2027*
2	Provide waste storage area for 2 days	113.446	TPD	
3	Density of waste	446	Kg/m3	*As per Sampling*
4	Now, Total volume of stored waste	254.36	m3	
5	Assume height of hip	1.5	m	
6	Area required	169.57	m2	
7	Provide rectangular area having L : B	1.5		
8	Now, Width	10.63	m	
	Say	11	m	
9	Length	15.42	m	
	Say	16	m	

Table 67: Design of Dumping Yard For Storage &Pre sorting of Dry & Wet Waste for Zone-II				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
10	Area provided for waste storage	176	m2	
11	Provide clear space all around	1	m	
12	Total length	**18**	m	
13	Total width	**13**	m	
14	Total area required	**234**	m2	
15	Required Bearing capacity	**4.76**	**KN/m²**	*Soil Starta-Soft Rock (245 KN/m²) Hence Safe*
For Wet Waste				
16	Amount of Wet Waste to be handled daily	45.76	TPD	*as per year 2027*
17	Provide waste storage area for 2 days	91.514	TPD	
18	Density of waste	446	Kg/m3	As per Sampling
19	Now, Total volume of stored waste	205.19	m3	
20	Assume height of hip	1.5	m	
21	Area required	136.79	m2	
22	Provide rectangular area having L : B	1.5		
23	Now, Width	9.55	m	
	Say	10	m	
24	Length	13.68	m	
	Say	14	m	
25	Area provided for waste storage	140	m2	
26	Provide clear space all around	1	m	
27	Total length	**16**	m	
28	Total width	**12**	m	
29	Total area required	**192**	m2	
30	Required Bearing capacity	**4.68**	**KN/m²**	*Soil Starta-Soft Rock (245 KN/m²) Hence Safe*
Source: Consultant				

Table 68: Design of Dumping Yard For Storage &Pre sorting of Dry & Wet Waste for zone-III				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
For Dry Waste				
1	Amount of Dry Waste to be handled daily	25.19	TPD	*as per year 2028*
2	Provide waste storage area for 2 days	50.38	TPD	
3	Density of waste	446	Kg/m3	*As per Sampling*
4	Now, Total volume of stored waste	112.96	m3	
5	Assume height of hip	1.5	m	
6	Area required	75.31	m2	
7	Provide rectangular area having L : B	1.5		
8	Now, Width	7.09	m	
	Say	8	m	
9	Length	9.41	m	
	Say	10	m	
10	Area provided for waste storage	80	m2	
11	Provide clear space all around	1	m	
12	Total length	**12**	m	
13	Total width	**10**	m	
14	Total area required	**120**	m2	

Table 68: Design of Dumping Yard For Storage &Pre sorting of Dry & Wet Waste for zone-III				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
15	Required Bearing capacity	**4.12**	**KN/m²**	*Soil Starta-Soft Rock (245 KN/m²) Hence Safe*
For Wet Waste				
16	Amount of Wet Waste to be handled daily	20.32	TPD	*as per year 2028*
17	Provide waste storage area for 2 days	40.64	TPD	
18	Density of waste	446	Kg/m3	As per Sampling
19	Now, Total volume of stored waste	91.12	m3	
20	Assume height of hip	1.5	m	
21	Area required	60.75	m2	
22	Provide rectangular area having L : B	1.5		
23	Now, Width	6.36	m	
	Say	7	m	
24	Length	8.68	m	
	Say	9	m	
25	Area provided for waste storage	63	m2	
26	Provide clear space all around	1	m	
27	Total length	**11**	m	
28	Total width	**9**	m	
29	Total area required	**99**	m2	
30	Required Bearing capacity	**4.02**	**KN/m²**	*Soil Starta-Soft Rock(245 KN/m²) Hence Safe*
Source: Consultant				

Table 69: Area required for Material Recovery Facilities for Zone-I				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
Provide Trapezoidal Shape of Hip				
1	Quantity of waste to be recover	59.27	MT	*as per year 2027*
2	Density of waste	446	kg/ m^3	*
3	Volume required	132.89	m^3	
4	Assume height of storage heap	1.2	m	
5	Area required	110.74	m^2	
6	Area required for simple processing machine	80	m^2	
7	Space required for circulation of vehicle	50	m^2	
8	Provide storage capacity for	6	days	
9	Area required for storage	664.44	m^2	
10	Total area required	794.44	m^2	
11	Provide	800	m^2	
12	Length of shed	50	m	
13	Width of shed	16	m	
Source: Consultant				

Table 70: Area required for Material Recovery Facilities for Zone-II				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
Provide Trapezoidal Shape of Hip				
1	Quantity of waste to be recover	32.03	MT	*as per year 2027*
2	Density of waste	446	kg/ m^3	*
3	Volume required	71.82	m^3	

Table 70: Area required for Material Recovery Facilities for Zone-II				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
4	Assume height of storage heap	1.2	m	
5	Area required	59.85	m^2	
6	Area required for simple processing machine	200	m^2	
7	Space required for circulation of vehicle	100	m^2	
8	Provide storage capacity for	5	days	
9	Area required for storage	299.25	m^2	
10	Total area required	599.25	m^2	
11	Provide	640	m^2	
12	Length of shed	40	m	
13	Width of shed	16	m	
Source: Consultant				

Table 71: Area required for Material Recovery Facilities for Zone-III				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
Provide Trapezoidal Shape of Hip				
1	Quantity of waste to be recover	14.22	MT	*as per year 2028*
2	Density of waste	446	kg/ m^3	*
3	Volume required	31.88	m^3	
4	Assume height of storage heap	1.2	m	
5	Area required	26.57	m^2	
6	Area required for simple processing machine	200	m^2	
7	Space required for circulation of vehicle	100	m^2	
8	Provide storage capacity for	6	days	
9	Area required for storage	159.42	m^2	
10	Total area required	459.42	m^2	
11	Provide	480	m^2	
12	Length of shed	30	m	
13	Width of shed	16	m	
Source: Consultant				

(ii) Design of Windrow Platform for Windrow Composting of Pre-sorted wet waste

In the Zone-I 1 10 MT Capacity Bio Gas Plant is also provided. The following is the Design of Windrow Platform required for **Windrow Composting of Pre-sorted wet Waste.**

Table 72: Design of Windrow Platform for Windrow Composting of Pre-sorted Wet Waste for Zone-I				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
Provide Trapezoidal Shape of Hip				
1	Total amount of organic waste	75.94	TPD	as per year 2028
2	Density of waste	446	Kg/m3	
3	Volume of waste	170.26	cum/day	
4	Provide height	2	m	
5	Provide side slope (V : H)	1:2		
6	Provide Width	7	m	
7	Now, Length	30.96	m/day	
	Say	31	m/day	
8	Length required per week	217	m	
9	Kept waste in windrow	6	weeks	

Table 72: Design of Windrow Platform for Windrow Composting of Pre-sorted Wet Waste for Zone-I				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
11	Provide clear space all around	1	m	
12	Total area required per hip	297	m2	
13	Total hip required with one stand by	**43**	no.	
14	Total Width required per hip	**9**	m	
15	Total Length required per hip	**33**	m	
16	Total area of platform	**12771**	m2	
17	Required Bearing capacity	**2.51**	**KN/m^2**	*Soil Starta-Soft Rock (245 KN/m^2) Hence Safe*
Source: Consultant				

Table 73: Design of Windrow Platform for Windrow Composting of Pre-sorted Wet Waste for Zone-II				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
Provide Trapezoidal Shape of Hip				
1	Total amount of organic waste	45.76	TPD	as per year 2028
2	Density of waste	446	Kg/m3	*
3	Volume of waste	102.59	cum/day	
4	Provide height	2	m	
5	Provide side slope (V : H)	1:2		
6	Provide Width	7	m	
7	Now, Length	18.65	m/day	
	Say	19	m/day	
8	Length required per week	133	m	
9	Kept waste in windrow	6	weeks	
11	Provide clear space all around	1	m	
12	Total area required per hip	189	m2	
13	Total hip required with one stand by	**43**	no.	
14	Total Width required per hip	**9**	m	
15	Total Length required per hip	**21**	m	
16	Total area of platform	**8127**	m2	
17	Required Bearing capacity	**2.38**	**KN/m^2**	*Soil Starta-Soft Rock (245 KN/m^2) Hence Safe*
Source: Consultant				

Table 74: Design of Windrow Platform for Windrow Composting of Pre-sorted Wet Waste for Zon-III				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
Provide Trapezoidal Shape of Hip				
1	Total amount of organic waste	20.03	TPD	as per year 2028
2	Density of waste	446	Kg/m3	*
3	Volume of waste	44.9	cum/day	
4	Provide height	2	m	
5	Provide side slope (V : H)	1:2		
6	Provide Width	7	m	
7	Now, Length	8.16	m/day	
	Say	9	m/day	
8	Length required per week	63	m	
9	Kept waste in windrow	6	weeks	

Table 74: Design of Windrow Platform for Windrow Composting of Pre-sorted Wet Waste for Zon-III				
S. No.	**Parameter**	**Quantity**	**Unit**	**Remark**
11	Provide clear space all around	1	m	
12	Total area required per hip	99	m2	
13	Total hip required with one stand by	**43**	no.	
14	Total Width required per hip	**9**	m	
15	Total Length required per hip	**11**	m	
16	Total area of platform	**4257**	m2	
17	Required Bearing capacity	**2.01**	**KN/m²**	*Soil Starta-Soft Rock (245 KN/m²) Hence Safe*
Source: Consultant				

6.3.5. Required infrastructure and equipment for Waste Processing

For the processing of waste, various infrastructure & equipment required, are listed below.

Table 75: Required infrastructure and equipment for Waste Processing for Zone-I					
		Requirements			
No.	**Type**	**Activity**	**Infrastructure**	**NOS.**	**Details**
1	MATERIAL RECOVERY FACILITY AND PRE-SORTING FACILITY (FOR DRY AND WET WASTE)	*For Measuring of daily Incoming Waste*	Weigh Bridge	1 Nos.	Capacity to measure upto 20 MT.
		For Storage of Incoming Waste	Dumping Yard	2 Nos. (1 for Dry Waste and 1 for Wet Waste)	Dimensions For Dry Waste :- 24X17 For Wet Waste :- 21X16
		For Waste Handling	Pay Loader Mounted on Tractor	1 Nos.	Refer Annexure for Detailed Specification.
		For pre-sorting of dry and wet waste	Simple Processing Machine	1 Nos.	Simple processing machine of capacity 200 M.T. per 12 hours working. Refer Annexure (XV) for Specifications.
		For Storage of Segregated Dry Fraction of Waste and Compost	MRF Shed	1 Nos.	Dimensions 50X16 SQM
2	WINDROW COMPOSTING	*For Windrow Composting of Pre-sorted wet waste*	Windrow Platform	43 Nos.	Dimensions 9X33 SQM
3	BIO GAS PLANT	*For 10 MT wet waste*	Bio Gas Plant	1 Nos.	6000 SQM
4	GENERAL SITE DEVELOPMENT	*For Monitoring & Management*	Security & Operating	2 Nos.	Dimension 3 X 3 SQM.

Table 75: Required infrastructure and equipment for Waste Processing for Zone-I					
		Requirements			
No.	Type	Activity	Infrastructure	NOS.	Details
			room		
		For Sanitation Use	Toilet with Septic tank	1 Nos.	Dimension 2 X 2 SQM.
		For Site Security	Wire Fencing	-	Dimension 3 Mt High
		For Movements within site	Roads	1 Nos.	200 Mt Length
		For Movements within Site	Drainage	1 Nos.	210 Mt Length
Source: Consultant					

Table 76: Required infrastructure and equipment for Waste Processing for Zone-II					
		Requirements			
No.	Type	Activity	Infrastructure	NOS.	Details
1	MATERIAL RECOVERY FACILITY AND PRE-SORTING FACILITY (FOR DRY AND WET WASTE)	*For Measuring of daily Incoming Waste*	Weigh Bridge	1 Nos.	Capacity to measure upto 20 MT.
		For Storage of Incoming Waste	Dumping Yard	2 Nos. (1 for Dry Waste and 1 for Wet Waste)	Dimensions For Dry Waste :- 18X13 For Wet Waste :- 16X12
		For Waste Handling	Pay Loader Mounted on Tractor	1 Nos.	Refer Annexure for Detailed Specification.
		For pre-sorting of dry and wet waste	Simple Processing Machine	1 Nos.	Simple processing machine of capacity 100 M.T. per 12 hours working. Refer Annexure (XV) for Specifications.
		For Storage of Segregated Dry Fraction of Waste and Compost	MRF Shed	1 Nos.	Dimensions 40X16 SQM
2	WINDROW COMPOSTING	*For Windrow Composting of Pre-sorted wet waste*	Windrow Platform	43 Nos.	Dimensions 9X21 SQM
3	VERMI COMPOSTING	*For Vermi Composting of the pre-compost prepared from Windrow composting*	Vermi Pits	0 Nos.	Dimensions 8X2 SQM

Table 76: Required infrastructure and equipment for Waste Processing for Zone-II					
		Requirements			
No.	Type	Activity	Infrastructure	NOS.	Details
4	GENERAL SITE DEVELOPMENT	*For Monitoring & Management*	Security & Operating room	2 Nos.	Dimension 3 X 3 SQM.
		For Sanitation Use	Toilet with Septic tank	1 Nos.	Dimension 2 X 2 SQM.
		For Site Security	Wire Fencing	-	Dimension 3 Mt High
		For Movements within site	Roads	1 Nos.	100 Mt Length
		For Movements within Site	Drainage	1 Nos.	110 Mt Length
Source: Consultant					

Table 77: Required infrastructure and equipment for Waste Processing for Zone-III					
		Requirements			
No.	Type	Activity	Infrastructure	NOS.	Details
1	MATERIAL RECOVERY FACILITY AND PRE-SORTING FACILITY (FOR DRY AND WET WASTE)	*For Measuring of daily Incoming Waste*	Weigh Bridge	1 Nos.	Capacity to measure upto 20 MT.
		For Storage of Incoming Waste	Dumping Yard	2 Nos. (1 for Dry Waste and 1 for Wet Waste)	Dimensions For Dry Waste :- 12X10 For Wet Waste :- 11X9
		For Waste Handling	Pay Loader Mounted on Tractor	1 Nos.	Refer Annexure for Detailed Specification.
		For pre-sorting of dry and wet waste	Simple Processing Machine	1 Nos.	Simple processing machine of capacity 50 M.T. per 12 hours working. Refer Annexure (XV) for Specifications.
		For Storage of Segregated Dry Fraction of Waste and Compost	MRF Shed	1 Nos.	Dimensions 30X16 SQM
2	WINDROW COMPOSTING	*For Windrow Composting of Pre-sorted wet waste*	Windrow Platform	43 Nos.	Dimensions 9X11 SQM
3	VERMI COMPOSTING	*For Vermi Composting of the pre-compost prepared from Windrow*	Vermi Pits	0 Nos.	Dimensions 8X2 SQM

Table 77: Required infrastructure and equipment for Waste Processing for Zone-III					
No.	Type	Requirements			Details
		Activity	Infrastructure	NOS.	
		composting			
4	GENERAL SITE DEVELOPMENT	*For Monitoring & Management*	Security & Operating room	2 Nos.	Dimension 3 X 3 SQM.
		For Sanitation Use	Toilet with Septic tank	1 Nos.	Dimension 2 X 2 SQM.
		For Site Security	Wire Fencing	-	Dimension 3 Mt High
		For Movements within site	Roads	1 Nos.	100 Mt Length
		For Movements within Site	Drainage	1 Nos.	110 Mt Length
Source: Consultant					

6.3.6. Area Requirements & Availability of Land for Waste Processing

ULB has allotted land for Zone-I waste dumping with survey no.155 & 156 having area of 9.35 hectare, which is capable to fulfill the demand for waste processing of upcoming 30 years. The allotted landfill site is located 1 km from town, having proper connectivity with road network.

The following is the area requirements for various Waste processing activities.

Table 78: Area Requirements & Availability of Land for Waste Processing Zone-I			
S. No.	**Proposed Infrastructure**	**Area**	**Unit**
1	Weigh Bridge	18	SQM
2	Dumping Yard	744	SQM
3	Simple Processing Machine	9	SQM
4	MRF Shed	800	SQM
5	Windrow Platform	14706	SQM
6	Bio Gas Plant	6000	SQM
7	Security & Operating room	18	SQM
8	Toilet with Septic tank	4	SQM
9	Roads	1200	SQM
10	Building Block	9	SQM
	Total Area required for Waste Processing Activities	23508	SQM
	Total Area Available	9.35	Hectare
	%age consumed for Waste Processing Activities	25%	
Source: Consultant			

ULB has allotted land for Zone-II waste dumping with survey no.295/1 & 295/2 having area of 2.83 hectare, which is capable to fulfill the demand for waste processing of upcoming 30 years. The allotted landfill site is located 1 km from town, having proper connectivity with road network.

The following is the area requirements for various Waste processing activities.

Table 79: Area Requirements & Availability of Land for Waste Processing for Zone-II			
S. No.	**Proposed Infrastructure**	**Area**	**Unit**
1	Weigh Bridge	18	SQM
2	Dumping Yard	426	SQM
3	Simple Processing Machine	9	SQM
4	MRF Shed	640	SQM
5	Windrow Platform	8127	SQM
6	Vermi Pits	0	SQM
7	Security & Operating room	18	SQM
8	Toilet with Septic tank	4	SQM
9	Roads	600	SQM
10	Building Block	9	SQM
	Total Area required for Waste Processing Activities	9851	SQM
	Total Area Available	2.83	Hectare
	%age consumed for Waste Processing Activities	35%	
Source: Consultant			

ULB has allotted land for Zone-III waste dumping with survey no.26 having area of 1.15 hectare, which is capable to fulfill the demand for waste processing of upcoming 30 years. The allotted landfill site is located 1 km from town, having proper connectivity with road network.

The following is the area requirements for various Waste processing activities.

Table 80: Area Requirements & Availability of Land for Waste Processing for Zone-III			
S. No.	**Proposed Infrastructure**	**Area**	**Unit**
1	Weigh Bridge	18	SQM
2	Dumping Yard	219	SQM
3	Simple Processing Machine	9	SQM
4	MRF Shed	480	SQM
5	Windrow Platform	4257	SQM
6	Vermi Pits	0	SQM
7	Security & Operating room	18	SQM
8	Toilet with Septic tank	4	SQM
9	Roads	600	SQM
10	Building Block	9	SQM
	Total Area required for Waste Processing Activities	5614	SQM
	Total Area Available	1.15	Hectare
	%age consumed for Waste Processing Activities	49%	
Source: Consultant			

6.3.7. Environmental Monitoring and control for Waste Processing Operations

In order to ensure the optimal performance of the landfill site, checking the environmental pollution and complying with the regulatory requirements is essential. The following checklist of measures are prescribed during operation of processing plant.

(i) General Measures

- Visually evaluate, weigh, and document incoming waste loads
- Segregate potentially hazardous or infectious waste material and manage as a hazardous or infectious waste, as applicable. (Reject the waste if no facility is available for processing such type of waste).

- Analyze suspected hazardous materials before acceptance so that they can be adequately treated and disposed of
- Isolate size reduction equipment's (shredders or grinders) in an explosion-proof area with proper ventilation and pressure relief to reduce the impacts of potential explosions. Visual inspection of the incoming waste, along with sorting and removal procedures, can minimize this potential hazard
- Separate recoverable secondary materials for recycling and organic waste for composting to the extent practical
- Waste that contains organics that are contaminated by potentially hazardous chemicals (e.g., PCBs, chlordane and other pesticides, heavy metals and metalloids) and/or pathogenic substances and micro-organisms (e.g., prions, viruses, bacteria, and parasites) that will not be rendered harmless by the process or may constitute a health or environmental risk should not be accepted for biological treatment

(ii) To control contaminated runoff (Leachate)

- While selecting the site, consider the proximity of waste handling and storage area with nearby water bodies (wells, irrigation canals, surface water bodies) and the ability to prevent contaminated leachate from entering these water bodies.
- Use impermeable materials for roads, waste processing and storage areas, and vehicle washing areas, and install curbs to prevent runoff to permeable areas.
- Collect runoff and leachate from areas used for waste storage, and treat runoff to meet applicable environmental standards before discharge to surface water or the municipal sewage system
- Discharge to the municipal sewage system (via pipe or tanker truck), where available, is preferred
- Re-use collected water in on-site disposal processes to the extent practical or store with collected leachate awaiting treatment.
- To avoid runoff from vehicles, the containers should be covered during transport.
- The vehicle should be equipped with drainage collection container to hold the leachate until the vehicle reaches a safe discharge location.

(iii) To prevent, minimize and control litter

- Provide adequate storage for waste not meant to be immediately treated or disposed of
- Implement good housekeeping procedures
- Consider use of enclosed/covered areas for waste tipping, shredding, compacting, etc.
- Install catch fences and netting to trap windblown litter

(iv) To control dust, Bio-aerosols and odors and vehicle emissions

- Select vehicles and containers that minimize air emissions during waste loading and unloading
- Design drop-off points to minimize queuing of vehicles
- Sweep waste management areas and roads frequently and use water spray for dust control where needed
- Pre-treat wastes as needed (e.g., solidification, encapsulation, or wetting sufficient to reduce dust but without forming leachate)
- Enclosed waste storage and handling areas are preferred for all wastes (specially which generate hazardous dust e.g. asbestos)
- Use extraction system to remove dust from working areas, buildings, and storage vessels, and treat as needed to control particulate emissions (e.g., bag filter)
- Remove, treat, or dispose of all biological/malodorous wastes in an expeditious manner
- Use odor-neutralizing sprays where necessary
- Use negative pressure in processing buildings and appropriate air filtration (e.g., biofilter) to remove odor

(v) To control noise and vibration

- Construct a buffer zone between the facility and the external environment or locate facilities away from sensitive receptors
- Include noise and vibration considerations during design
- Maintain site roads in good condition to reduce noise and vibration from vehicle movements
- Use acoustic screens around fixed/mobile plant and equipment
- Select equipment that has low noise emission levels
- Fit silencing equipment to plant, e.g. baffles/mufflers

- Use buildings to contain inherently noisy fixed plant equipment (e.g., locate waste shredder in the tipping hall, and enclose tipping hall on all sides) and consider use of sound-insulating materials in construction

(vi) To prevent, minimize and control leachate generation from biological treatments

- Installing a drainage layer composed of wood chips underneath the processing area to provide adequate leachate drainage or the processing platform may permanently incorporate a drainage layer.
- For small-scale compost facilities or in dry areas, an adsorbent material can be incorporated in the compost and at the base of the pile
- A leachate barrier system that forms a barrier between the stored organics and the groundwater, soil and substrata, as well as leachate collecting and treatment systems
- Design and maintain the slope of leachate drains for free drainage of leachate to the collection system and maximizing runoff in order to avoid infiltration
- Store leachate in a lined earthen basin or in aboveground storage tanks
- For anaerobic digestion, maximize recycling of wastewater to the reactor
- Measure (TOC), (COD), (N), (P) and (Cl) levels in the inlet and outlet flows from an anaerobic digester. When a better control of the process is required, or a better quality of the waste output, monitoring of additional parameters may be necessary
- Operate an anaerobic digester under thermophilic digestion conditions for optimum performance of the treatment system
- Maintain ideal composting conditions

(vii) To prevent, minimize, and control air emissions from biological treatment

- Use mist spray to keep down dusts, especially during and prior to loading or other handling procedures
- Use windrow turning equipment that is specially designed to minimize air emissions, as opposed to wheeled loaders or conveyor loaders that drop wastes into piles
- For highly odorous wastes, use closed feed bunkers constructed with a vehicle sluice; for less odor-intensive wastes, use automated and rapid action doors in combination with an appropriate exhaust air collection device resulting in an under pressure in the treatment hall
- Enclose leachate drains to reduce the emission of odors
- Minimize the amount of water added to compost
- to avoid anaerobic conditions that can cause hydrogen sulfideodors if the compost mixture contains sulfur-containing materials

(viii) Fire prevention and control strategies:

- For composting, avoid conditions that can lead to spontaneous combustion by controlling moisture content and temperature
- Collect biogas for use or treatment (e.g. energy recovery or flaring)
- Provide a fire alarm system, including temperature sensors in the waste being treated
- Design the facility for access by firefighting equipment, including clear aisles among windrows and access to an adequate water supply

The following environmental parameters shall be monitored on a regular basis.

- Quality of Leach ate after Treatment
- Surface Water Quality
- Ground Waste Quality
- Quantity and Quality of Gas Generated
- Ambient Air Quality

Table 81: Sampling Specifications for Environmental Monitoring

Description	Sampling Specifications
Quality of Leachate after Treatment	One grab Sampling at out let of the treatment plant every month
Surface Water Quality	One grab Sample at upstream side and one grab sample at downstream side for water bodies near the landfill site every month

Table 81: Sampling Specifications for Environmental Monitoring	
Description	**Sampling Specifications**
Ground Waste Quality	One sample at upstream side and three samples at downstream side of the landfill site every month
Quantity and Quality of Gas Generated	24 hours continuous stack monitoring at selected vent on every month
Ambient Air Quality	48 hours continuous ambient air quality monitoring at one location in upwind and three locations in downwind directions every month
Source: Proposed by the consultant	

6.3.8. Socio-Economic Benefits for Waste Processing

- By using composting methods to manage the biodegradable waste, we are able to:
  - Minimise waste that needs to be disposed in centralised landfills, thus extending existing landfill capacity;
  - Reduce the environmental impact of disposal sites as the bio-degradable waste fraction largely is to blame for the polluting leachate and the methane problems;
  - Benefit the soil by using organic compost instead of chemical fertilisers.
- The project aims at empowering women, and in particular women from socially and economically disadvantaged groups, as well as individuals from SCs, OBCs, and STs, and people living with disabilities, by offering them continuous employment and a guaranteed salary. In order not to disregard those already involved in SWM in the informal sector (the so-called rag pickers), they will get first priority in the employment process.
- There will also be opportunities for the start-up of micro-enterprises in recycling, e.g. recycling of paper, Tetra Pak cartons, Pet bottles, and etcetera. Hand in Hand will here use existing organisational capacities to train Self Help Group members and assist them in credit access and market tie-ups. Already established community based neighbourhood composts will be supported and promoted.
- The importance of economic empowerment should not be understated. As the individual is able to contribute to the household income, his/her self-esteem is regained and the decision-making powers are altered. Economic empowerment is hence a prerequisite for actual equality. Good working conditions, continuous training, and the adoption of scientific and professional ways of handling waste will minimise health risks and other occupational hazards that are common in the informal settings.
- In order to make long-term, sustainable changes, people at the grassroots level must feel ownership of and commitment to all of the project interventions. An important aspect in order to change norms, attitudes, and behaviours is naturally to raise the public's level of awareness, inform, and trigger debates about issues such as production and consumption patterns, actor responsibilities, sustainable economic growth, and so forth. It is central that waste is understood and discussed as part of a cyclical process of production, consumption, and recovery.
- Another project objective is to remove the social stigmas and taboos surrounding waste; instead of perceiving waste as something dirty, it should be seen as a lucrative resource from which one could make a living. By offering competitive salaries, good working conditions, professional uniforms, and etcetera, to the employees, we hope to change negative perceptions surrounding waste.

6.3.9. Product Utilisation

Composting proved to be the most cost-effective waste management option. The process involves conversion of the waste into useful and marketable materials and thus reduces the load on disposal sites and ultimately reduces cost of disposal. Compost reduces irrigation requirements, retains water and reduces leaching loss for plants, reduces soil erosion and runoff and suppresses weeds and herbicide requirements.

6.4. Municipal Sanitary Landfill

6.4.1. Conceptual Design of Landfill

Scientific Landfill design involves development of concept, adoption of suitable procedure for disposal component and safety considerations. A landfill is a typical combination of different component and each of these components has to be designed separately. Before generating a complete design of sanitary landfill, a design concept has been developed. For this process standard design procedure by CPHEEO Manual on municipal solid waste management, United States Environmental Protection Agency's Manual on Solid Waste Management (Subpart –D- Design Criteria) and Municipal Solid Waste (Management & Handling) Rules have been adopted. A design concept for the following components has been developed.

The proposed DPR is prepared for the waste disposal only at Suklia land. The three sites mention above will be used for the waste treatment and the rejects of all the three sites will be disposed at proposed scientific landfill at Suklia. Hence waste considered for design of landfill is integrated of waste reject of three sites.

- **Design life**
- **Assessment of landfill volume and area required**
- **Evaluation of concept development plan- Foot Print of Landfill Site.**
- **Design of final cover system**

[A] Design Life: The life of a sanitary landfill comprises of an active period and a closure and post-closure period. The active period may typically range from 20 to 25 years depending on the availability of land area. The closure and post-closure period, for which a sanitary landfill will be monitored and maintained, will be 15 years and more after the active period is completed. For the project design life of the landfill are for ULB has been considered as 5 years as specified in Terms of Reference. The design period is 2018-2022.

[B] Landfill Volume and Area Required: A capacity needs assessment was conducted as the first step of the site selection process. An in-depth capacity calculation will be the first step in the design process, taking into account the municipal solid waste management (MSWM) plan and computed waste amounts for the active period of the sanitary landfill. The area required for landfill development for the ULB is assessed based on the method suggested in CPHEEO manual. The following is the area requirements for Disposal of waste calculated for 30 Years.

Table 82: Area Required for Disposal of Waste

Assume, waste to be disposed off of daily generated waste =	20	% of total waste
Assume, density of compacted waste =	0.85	T/m^3
Provide daily cover/layer of inert materials/Soil =	15	% of disposed waste

S. No.	*Year*	*Population*	*Total House hold*	*Total Waste generated (TPD)*	*Amount of waste to be Disposed (TPD)*	*Total Disposable Waste (Tonne per Annum)*	*Annual Volume (m3 per Annum)*	*Volume required for cover material (in m^3 Per Annum)*	*Total Volume (in m^3 per Annum)*	*Cumulative Volume of Total Disposable Waste (in m^3)*
PHASE- 1 (2018-2023)										
1	2018	729347	154196	291.74	58.348	21297.02	25055.32	3758.3	28813.62	28813.62
2	2019	741301	156723	296.52	59.304	21645.96	25465.84	3819.88	29285.72	58099.34
3	2020	753307	159262	301.32	60.264	22056.62	25948.96	3892.34	29841.30	87940.64
4	2021	765362	161810	306.14	61.228	22348.22	26292.02	3943.8	30235.82	118176.46
5	2022	777467	164369	310.99	62.198	22702.27	26708.55	4006.28	30714.83	**148891.29**
PHASE- 2 (2023-2028)										
6	2023	789622	166939	315.85	63.170	23057.05	27125.94	4068.89	31194.83	31194.83
7	2024	801827	169519	320.73	64.146	23477.44	27620.52	4143.08	31763.60	62958.43

Table 82: Area Required for Disposal of Waste										
Assume, waste to be disposed off of daily generated waste =					20	% of total waste				
Assume, density of compacted waste =					0.85	T/m^3				
Provide daily cover/layer of inert materials/Soil =					15	% of disposed waste				
S. No.	***Year***	***Population***	***Total House hold***	***Total Waste generated (TPD)***	***Amount of waste to be Disposed (TPD)***	***Total Disposable Waste (Tonne per Annum)***	***Annual Volume (m3 per Annum)***	***Volume required for cover material (in m^3 Per Annum)***	***Total Volume (in m^3 per Annum)***	***Cumulative Volume of Total Disposable Waste (in m^3)***
8	2025	814081	172110	325.63	65.126	23770.99	27965.87	4194.88	32160.75	95119.18
9	2026	826385	174711	330.55	66.110	24130.15	28388.41	4258.26	32646.67	127765.85
10	2027	838740	177323	335.50	67.100	24491.50	28813.53	4322.03	33135.56	**160901.41**
PHASE- 3 (2028-2033)										
11	2028	851144	179946	340.46	68.092	24921.67	29319.61	4397.94	33717.55	33717.55
12	2029	863599	182579	345.44	69.088	25217.12	29667.20	4450.08	34117.28	67834.83
13	2030	876103	185223	350.44	70.088	25582.12	30096.61	4514.49	34611.10	102445.93
14	2031	888658	187877	355.46	71.092	25948.58	30527.74	4579.16	35106.90	137552.83
15	2032	901261	190541	360.50	72.100	26388.60	31045.41	4656.81	35702.22	**173255.05**
PHASE- 4 (2033-2038)										
16	2033	913915	193217	365.57	73.114	26686.61	31396.01	4709.4	36105.41	36105.41
17	2034	926619	195903	370.65	74.130	27057.45	31832.29	4774.84	36607.13	72712.54
18	2035	939372	198599	375.75	75.150	27429.75	32270.29	4840.54	37110.83	109823.37
19	2036	952177	201306	380.87	76.174	27879.68	32799.62	4919.94	37719.56	147542.93
20	2037	965030	204023	386.01	77.202	28178.73	33151.45	4972.72	38124.17	**185667.10**
PHASE- 5 (2038-2043)										
21	2038	977933	206751	391.17	78.234	28555.41	33594.60	5039.19	38633.79	38633.79
22	2039	990887	209490	396.35	79.270	28933.55	34039.47	5105.92	39145.39	77779.18
23	2040	1003890	212239	401.56	80.312	29394.19	34581.40	5187.21	39768.61	117547.79
24	2041	1016943	214999	406.78	81.356	29694.94	34935.22	5240.28	40175.50	157723.29
25	2042	1030046	217769	412.02	82.404	30077.46	35385.25	5307.79	40693.04	**198416.33**
PHASE- 6 (2043-2048)										
26	2043	1043199	220549	417.28	83.456	30461.44	35836.99	5375.55	41212.54	41212.54
27	2044	1056402	223341	422.56	84.512	30931.39	36389.87	5458.48	41848.35	83060.89
28	2045	1069654	226142	427.86	85.572	31233.78	36745.62	5511.84	42257.46	125318.35
29	2046	1082957	228955	433.18	86.636	31622.14	37202.52	5580.38	42782.90	168101.25
30	2047	1096310	231778	438.52	87.704	32011.96	37661.13	5649.17	43310.30	**211411.55**
Source: Consultant										

The following is the design of proposed simple landfill site.

Table 83: Design and Area Requirements for Simple Landfill Site								
NO	**PARAMETER**	**PHASE- 1** (2018-2023)	**PHASE- 2** (2023-2028)	**PHASE- 3** (2028-2033)	**PHASE- 4** (2033-2038)	**PHASE- 5** (2038-2043)	**PHASE- 6** (2043-2048)	**UNIT**
		QTY	QTY	QTY	QTY	QTY	QTY	
1	Total required volume	148891.29	160901.41	173255.05	185667.10	198416.33	211411.55	CUM
	Provide Square type landfill site							
2	Provide depth from center	3	3	3	3	3	3	M
3	Provide height from center	2.25	2.24	2.25	2.24	2.25	2.25	M
4	Volume below center	86064.33	93006.6	100147.43	107322	114691.5	122203.21	CUM
5	Volume above center	62826.96	67894.81	73107.62	78345.08	83724.81	89208.34	CUM
6	provide side slope below center V : H	1:2	1:2	1:2	1:2	1:2	1:2	
7	provide side slope above center V : H	1:3	1:3	1:3	1:3	1:3	1:3	
8	Now, Length at bottom	163.35	170.05	176.68	183.11	189.5	195.8	M
	Say	164	171	177	184	190	196	**M**

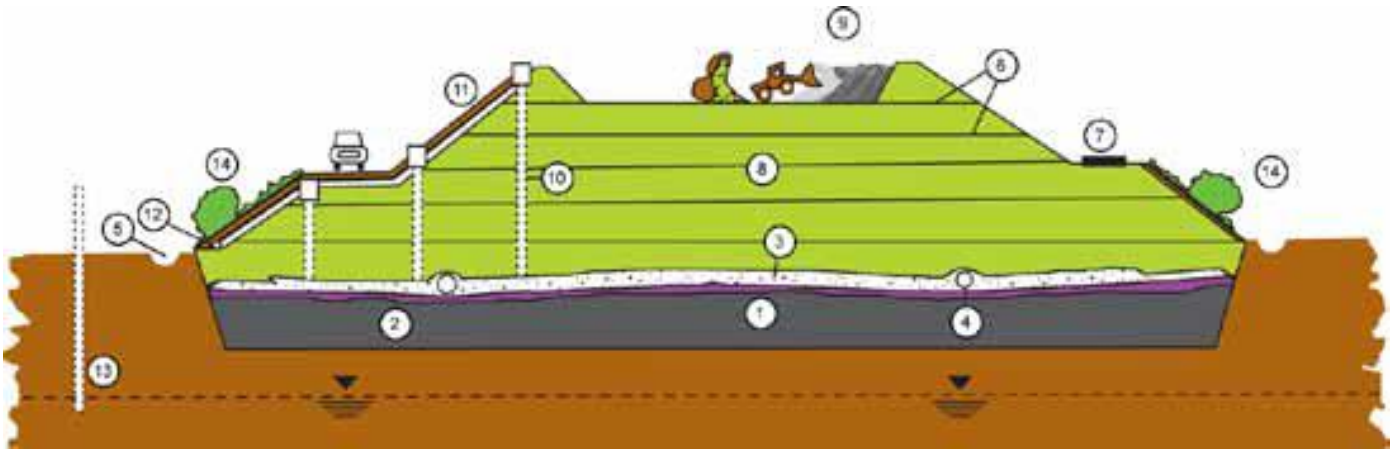
Table 83: Design and Area Requirements for Simple Landfill Site								
NO	**PARAMETER**	**PHASE- 1** (2018-2023)	**PHASE- 2** (2023-2028)	**PHASE- 3** (2028-2033)	**PHASE- 4** (2033-2038)	**PHASE- 5** (2038-2043)	**PHASE- 6** (2043-2048)	**UNIT**
		QTY	QTY	QTY	QTY	QTY	QTY	
9	**Width at bottom**	164	171	177	184	190	196	**M**
10	Length at center	176	183	189	196	202	208	M
11	Width at Top	158	165	171	178	184	190	M
12	Now, Volume provided below center	86736	94023	100503	108336	115284	122448	CUM
13	Volume provided above center	62811	67879	72961	78391	83871	89163	CUM
14	Total Volume Provided	149547	161902	173464	186727	199155	211611	CUM
		Safe	Safe	Safe	Safe	Safe	Safe	
15	Area required	30976	33489	35721	38416	40804	43264	SQ M
Source: Consultant								

[C] Evaluation of Concept Development Plan- Foot Print of Land Fill Site: sanitary landfill focuses on optimised leachate management, as leachate is a main source of potential environmental pollution. It is important to minimise leachate generation and to avoid leachate being retained for a long time in the landfill body. A landfill can be both above ground or partially below ground, based on the local hydro-geological situation and the availability of land. Where abandoned quarries are to be used as potential sanitary landfill sites, the landfill could be below ground, depending on the site situation.
Based on the topography and shape of the site identified for landfill development a broad concept for development of landfill was evaluated. The final shape and phase- wise development plan and internal cell arrangement was finalized after estimating the volume required for the land-filling of waste from 5 years (design life).

[D] Design of Final Cover System: A final landfill cover is usually composed of several layers, each with a specific function. The surface system must enhance surface drainage, minimize infiltration, support vegetation and control the release of Landfill gases. The landfill cover to be adopted will depend on the gas management system. As recommended by the MoEF and CPHEEO the final cover system must consist of a vegetative layer supported by a drainage layer over barrier layer and gas vent layer.

It should be able to minimise infiltration of storm water in the landfill body and to allow storm water runoff, a surface sealing system has to be installed after the final completion of each landfill part. The main purposes of the final cover system are to:

- control the amount of storm water filtration into the waste to reduce leachate quantities
- prevent erosion
- To minimise the migration of greenhouse gases (GHG) into the atmosphere
- protect the base sealing (impermeable) layer
- To minimise other emissions causing negative impacts on the environment.



1. Geological barrier

2. Impermeable base liner
3. Drainage layer
4. Leachate collection system
5. Storm - water drain ditch
6. Bordering dams
7. Circulation roads
8. Landfill body
9. Filling and compacting in layers
10. Gas venting system
11. Protective cover system
12. Gas collectors
13. Groundwater control
14. Re-planting

6.4.2. Area Requirements & Availability of Land for Waste Disposal

The following is the area requirements for various Waste Disposal.

Table 84: Area Requirements & Availability of Land for Waste Disposal

S. No.	Period of Disposal	Area (in Sq. M)	%age w.r.t. Available
1	PHASE- 1 (2018-2023)	30976	33.1%
2	PHASE- 2 (2023-2028)	33489	35.8%
3	PHASE- 3 (2028-2033)	35721	38.2%
4	PHASE- 4 (2033-2038)	38416	41.1%
5	PHASE- 5 (2038-2043)	40804	43.6%
6	PHASE- 6 (2043-2048)	43264	46.3%
7	**Total Area required for Waste Disposal**	222670	
	Total Area Available	9.35	Hect.
	%age consumed for Waste Processing Activities	238.1%	

Source: Consultant

6.4.3. Technical Specification

The proposed landfill facility has to be constructed and operated in various phases as it allows sequential use of the landfill area. This facilitates the following activities for smooth functioning of the facility. At any given point of time the following four operations could be envisaged:

- Part of the facility is having final Cover
- Part of the facility is being actively filled.
- Part of the facility is being prepared to receive the waste.
- Part of the facility is undisturbed.

Landfills below ground are to be engineered and constructed appropriately to address the following issues:

- additional costs for excavation;
- the need to pump leachate during and beyond the active life of the landfill;
- environmental risks caused by non-functional pumps;
- potential for retention of leachate in the waste body;
- no possibility of pipe cleansing and controlling;
- Pumping cost for the leachate during the lifetime and the aftercare phase of the landfill.

In this proposal, based on availability of land, tapered square type landfill cell having dimension of 176 X 176 m at centre with side slope of 1:2 below centre and 1:3 above centre, which is 3m dip & 2.25m high from centre, requires area of land of 30976 sqm is proposed for first five year which is capable to occupy volume of 149547 cum.

6.4.4. Environmental Monitoring and Control for Waste Disposal Operations

In order to ensure the optimal performance of the landfill site, checking the environmental pollution and complying with the regulatory requirements is essential. The following checklist of measures are prescribed for during operation of Landfill site.

(i) Landfill Siting and Buffer Zones

- 250 meters distance from residential development
- Visual impacts should be minimized by evaluating location alternatives
- 3 km distance from a turbojet airport and 1.6 km of a piston-type airport or as permitted by the aviation authority.
- 500 meters distance from drinking, irrigation, or livestock water supply wells located down gradient of the landfill, unless alternative water sources are readily and economically available.
- Areas within the landfill boundaries should be located outside of the 10-year groundwater recharge area for existing or pending water supply development
- Perennial stream should not be located within 300 meters downgradient of the proposed landfill cell development, unless diversion, culverting or channeling is economically and environmentally feasible to protect the stream from potential contamination

(ii) Site geology and hydrogeology

- Landfills should be located in gently sloped topography to ensure proper leachate collection
- Groundwater's seasonally high table level (i.e., 10 year high) should be at least 1.5 meters below the proposed base of any excavation or site preparation
- Suitable soil cover material should be available on-site to meet the needs for intermediate and final cover

(iii) Prevention from potential hazards

- Landfills should be sited outside of a floodplain subject to 10-year floods
- There should be no significant seismic risk within the region of the landfill
- No fault lines or significantly fractured geologic structure should be present within 500 meters of the perimeter of the proposed landfill
- There should be no underlying limestone, carbonate, fissured or other porous rock formations which would be incompetent as barriers to leachate and gas migration

(iv) Leachate control from MSW landfills

- Site landfills in areas with stable geology and avoid siting near particularly vulnerable or sensitive ecosystems and groundwater and surface water resources
- Design and operate the landfill in accordance with applicable national requirements and internationally recognized standards to minimize leachate generation
- Treat leachate onsite and/or discharge to municipal wastewater system
- Minimize the daily exposed working face and use perimeter drains and landfill cell compaction
- Prevent run-on of precipitation into the active area of the landfill; systems should be designed to handle the peak discharge from a 25-year storm
- Collect and control run-off from the active area of the landfill

(v) Groundwater and leachate monitoring

- Measure and record the quantity and quality of leachate generated
- Install groundwater monitoring wells outside the landfill perimeter to evaluate the movement of leachate into groundwater, 1 well in the upgradient and 2 wells in the downgradient flow direction from the landfill.
- The groundwater monitoring system should be consistent with applicable national regulations and internationally recognized standards

- Regularly sample the monitoring wells and analyze for constituents to check the efficiency of the system.

(vi) To control and monitor landfill gas emissions, if applicable

- Include landfill gas management system designed and operated in accordance with applicable national requirements and recognized international standards

(vii) To control dust and odor emissions

- Compact and cover waste promptly after discharge from the vehicle delivering the waste
- Minimize open tipping face area
- Dispose of odorous sludge in covered trenches
- Restrict acceptance of loads known to be particularly odorous
- Restrict tipping activities during periods of adverse weather
- Seal sump covers
- Aerate leachate storage areas

(viii) To prevent, minimize, and control dispersal of litter:

- Avoid siting of facilities in particularly exposed, windy areas
- Provide perimeter planting, landscaping, or fences to reduce wind
- Pin waste by use of dozers and landfill compactors immediately after discharge from the vehicles delivering the waste
- Use soil or artificial cover materials so that deposited waste is held in place
- Use scaring techniques or natural predators to control scavenging birds
- Provide an emergency tipping area/foul weather cell for lightweight wastes such as paper
- Construct temporary banks and bunds immediately adjacent to the tipping area, install strategically placed mobile catch fences close to the tipping area or on the nearest downwind crest, and/or fully enclose of the tipping area within a mobile litter net system
- Install wind fencing upwind of the tipping area to reduce the wind strength as it crosses the facility
- Temporarily close the facility to specific or all waste or vehicle types when weather conditions are particularly adverse

(ix) Closure and Post-Closure

- Development of a closure plan which specifies the necessary environmental objectives and controls, future land use, closure schedule, financial resources, and monitoring arrangements
- Evaluation, selection, and application of closure methods consistent with post- closure use
- Application of final cover components that are consistent with post closure use and local climatic conditions. The final cover should provide long term environmental protection.
- Financial instruments in place to cover the costs of closure and post-closure care and monitoring

The following environmental parameters shall be monitored on a regular basis.

- Quality of Leach ate after Treatment
- Surface Water Quality
- Ground Waste Quality
- Quantity and Quality of Gas Generated
- Ambient Air Quality

Table 85: Sampling Specifications for Environmental Monitoring

Description	Sampling Specifications
Quality of Leach ate after Treatment	One grab Sampling at out let of the treatment plant every month
Surface Water Quality	One grab Sample at upstream side and one grab sample at downstream side for

Table 85: Sampling Specifications for Environmental Monitoring	
Description	**Sampling Specifications**
	water bodies near the landfill site every month
Ground Waste Quality	One sample at upstream side and three samples at downstream side of the landfill site every month
Quantity and Quality of Gas Generated	24 hours continuous stack monitoring at selected vent on every month
Ambient Air Quality	48 hours continuous ambient air quality monitoring at one location in upwind and three locations in downwind directions every month
Source: Proposed by the consultant	

6.4.5. Socio-Economic Benefits of Waste Disposal

- The SWM project strives for maximum waste recovery through composting, recycling, and reuse, and aims at zero waste to be disposed onto dump-yards and landfills. The long term objective is thus to reduce the environmental degradation caused by solid waste.

- The Proposed Disposal site will improve air quality (e.g., by reducing open garbage burning) and water quality (e.g., by managing leachate from open dumps and landfills), and reduce the spread of disease (e.g., by improving pest management).

- A major benefit will be the mitigation of emissions of short-lived climate pollutants (SLCPs) that have a warming influence on the climate, including methane from landfills and black carbon from open burning. In addition, ISWM reduces the environmental impacts that result from poor waste management practices (e.g., land degradation from dump sites and landfills).

- Waste management can be one of the most expensive aspects of ULB. Reduced level of Waste Disposal can help reduce costly inefficiencies and lead to job creation.

- The reduced level of waste disposal will give other benefits to society, including reducing bad odors and improving the quality of life for marginalized groups, such as the informal recycling sector (i.e., "pickers").

- The space for creating MSW landfill is becoming scarce because of urbanization and economic development. Therefore, the reduced amount of waste sent to landfills will save land resources.

6.4.6. Cleanup Of Old Open Dumps

Estimation of Old Dumped Waste: It has been observed during the field visit that there has been general practice of waste burning in the city. 80 % of disposal site was covered with existing waste having average length of 321.82 m, width of 200m. and height of 2.05m. a huge amount of waste has accumulated on the site, with a scope of bio-mining. The existing dump site is located near the city and is in currently under operation. The quantity of waste dumped in this dumpsite has been is about 131945 m^3 (i.e. 64257.02 tones.).

The old dumps need to be cleared to reduce the methane and leachate still coming out of them for years to come, to remove such dumps as towns and cities grow, and to clear these spaces to ground level for re-use as waste-processing sites.

The most successful examples of clearing all existing dumps of untreated garbage by ‘Biomining’ , which can remove and usefully re-use upto 90% of the old dump, without moving it to another place are as under:-

a, **Sprinkle** the surface with a composting bio-culture solution or a dilute solution of 5% fresh cowdung in water. This will control smell and speed up decomposition.

b, **Loosen** the surface to a depth of 200 to 400 cm with a tractor-mounted cultivator (harrow).

c, Hire waste pickers or labour to **manually pick out bulky waste** like coconut shells, banana stems, tyres and rocks. Store in separate heaps for sale or use.

d, With a JCB or earthmover, form the loosened top material into long heaps **(wind-rows)** 2m to 2.5 meters high.

e ,**Turn** these windrow heaps once a week for 4 weeks as is done for fresh waste. The volume will reduce by 40% and the waste will be fully stabilized, meaning that there will be no smell or leachate formation and the material will be dry enough for sieving.

f ,**Screen** the stabilized waste in a rotary screen or gravity screens of different size openings, preferably 100 mm, 35mm and 8mm. A fan can blow out the plastic fraction for use by recyclers.

g ,**Use the different fractions** for different purposes. The finest fraction will be organic matter plus fine soil, called 'bio-earth' , which can be used as soil improver, especially for restoring alkaline or saline soils to fertility. The next coarser fraction will be gravel and coarse organics, which can be used on road and railway embankments to grow some vegetation for erosion control. It is also useful as a lawn subgrade cum drainage layer, or it can be used as organic manure in tree pits. The next coarser fraction may have a lot of combustibles (cloth etc) which can be baled and supplied as AFR (Alternate Fuel Resources) in cement kilns or boilers.

h , The heavy fractions may be sand and gravel usable for **road shoulders** or soil/earth for **plinth filling**. Stones and concrete if any can be used for **road sub-grade**, or crushing for **recycling and reuse** in the construction industry.

i, **About 10%** will be unwanted and can be **leveled on site** to raise the ground level slightly for future use. Reclaimed space can be reused for waste processing or alternate non-habitation uses.

[The detailed estimates are given in Annexure]

6.4.8. Required infrastructure and equipment for Waste Disposal

6.4.8.1. For Zone-I

Material Recovery facility

Dry or recyclable waste would be fed into the material recovery facility which would segregate them further. Recyclables form a separate stream of waste which can be further utilized and sold as source of revenues.
The mixed dry waste separated into the following:

- Paper
- Plastic
- Glass
- Metals
- Others

The objective of separating the dry waste would be to remove the bulk inert material, recover the marketable products and produce a stream of waste with high organic content. Recyclables like paper, plastics and metals have organized recyclers all over the country.

Dumping yard/ Waste receiving platform: Two impervious concrete platforms scientifically designed with proper gradient to accommodate the daily generated waste having size of 24x17 meter and 21x16 meter for dry & wet waste respectively. The concrete platform is provided with peripheral drain to collect the Leachate and rainwater over flow.

Windrow Platform: 43 impervious concrete platforms having size of 9x33 meter, scientifically designed with proper gradient to accommodate the garbage. The concrete platform is provided with peripheral drain to collect the Leachate and rainwater over flow.
Bio Gas Plant : A 10 MT Bio Gas Plant is also proposed after the suggestions received from Honourable Principal Secretory. Generated power will be utilize for lightning purpose at the plant.

Security Room& operating room: A security room at the entrance of disposal site to monitor availability of working staff, timing and number of trips of vehicle, is provided of size 3X3 m. beside, weigh bridge room of size 3 x 3m is also provided.

Building Block: A Building Block of size 3X3m is provided for the purpose of rest room on site.

Toilet with Septic Tank: A toilet with septic tank of size 2x2 meter& 3.4 x1.4 x1 cum respectively is provided for working staff.

Green Belt Development: A provision of green belt of 33 % area of total required area has been kept.

Plant & Machinery, Vehicle & Equipment

- **Weigh Bridge:** An Electronic Weigh bridge up-to 20 tons capacity is to be installed at the entrance to monitor the quantity of garbage delivered at the plant and outgoing goods weighing.
- Provision for a Tractor mounted loader has been kept in the proposal for movement of waste.
- Provision for a Rear End loading refuse compactor has been kept in the proposal for carrying waste to be disposed into landfill from Zone-II and Zone-III.
- Provision for simple processing machine has been kept in proposal for screening of biodegradable waste.
- Provision for electronic weighment for weighing of small quantity of compost/waste is kept in proposal.

Roads & Drainage Facilities: 3.5-meter-wide internal roads having length of 200 meter along with one sided drainage system are provided for ease of vehicle movement and storm water management respectively.

Water supply, electricity arrangements, safety equipment & culture: Provision of processing and disposal has been kept for Water supply, electricity arrangements, safety equipment & culture etc. Also a proposal of tube well at site has been made in the proposal.

6.4.8.2. for Zone-II

Material Recovery facility

Dry or recyclable waste would be fed into the material recovery facility which would segregate them further. Recyclables form a separate stream of waste which can be further utilized and sold as source of revenues.
The mixed dry waste separated into the following:

- Paper
- Plastic
- Glass
- Metals
- Others

The objective of separating the dry waste would be to remove the bulk inert material, recover the marketable products and produce a stream of waste with high organic content. Recyclables like paper, plastics and metals have organized recyclers all over the country.

Dumping yard/ Waste receiving platform: Two impervious concrete platforms scientifically designed with proper gradient to accommodate the daily generated waste having size of 18x13 meter and 16x12 meter for dry & wet waste respectively. The concrete platform is provided with peripheral drain to collect the Leachate and rainwater over flow.

Windrow Platform: 43 impervious concrete platforms having size of 9x21 meter, scientifically designed with proper gradient to accommodate the garbage. The concrete platform is provided with peripheral drain to collect the Leachate and rainwater over flow.

Building Block: A Building Block of size 3X3m is provided for the purpose of rest room on site.

Security Room& operating room: A security room at the entrance of disposal site to monitor availability of working staff, timing and number of trips of vehicle, is provided of size 3X3 m. beside, weigh bridge room of size 3 x 3m is also provided.

Toilet with Septic Tank: A toilet with septic tank of size 2x2 meter& 3.4 x1.4 x1 cum respectively is provided for working staff.

Green Belt Development: A provision of green belt of 33 % area of total required area has been kept.

Plant & Machinery, Vehicle & Equipment

- **Weigh Bridge:** An Electronic Weigh bridge up-to 20 tons capacity is to be installed at the entrance to monitor the quantity of garbage delivered at the plant and outgoing goods weighing.
- Provision for a Tractor mounted loader has been kept in the proposal for movement of waste.
- Provision for simple processing machine has been kept in proposal for screening of biodegradable waste.
- Provision for electronic weighment for weighing of small quantity of compost/waste is kept in proposal.

Roads & Drainage Facilities: 3.5-meter-wide internal roads having length of 200 meter along with one sided drainage system are provided for ease of vehicle movement and storm water management respectively.

Water supply, electricity arrangements, safety equipment & culture: Provision of processing and disposal has been kept for Water supply, electricity arrangements, safety equipment & culture etc. Also a proposal of tube well at site has been made in the proposal.

6.4.8.3. For Zone-III

Material Recovery facility

Dry or recyclable waste would be fed into the material recovery facility which would segregate them further. Recyclables form a separate stream of waste which can be further utilized and sold as source of revenues.
The mixed dry waste separated into the following:

- Paper
- Plastic
- Glass
- Metals
- Others

The objective of separating the dry waste would be to remove the bulk inert material, recover the marketable products and produce a stream of waste with high organic content. Recyclables like paper, plastics and metals have organized recyclers all over the country.

Dumping yard/ Waste receiving platform: Two impervious concrete platforms scientifically designed with proper gradient to accommodate the daily generated waste having size of 12x10 meter and 9x11 meter for dry & wet waste respectively. The concrete platform is provided with peripheral drain to collect the Leachate and rainwater over flow.

Windrow Platform: 43 impervious concrete platforms having size of 9x11 meter, scientifically designed with proper gradient to accommodate the garbage. The concrete platform is provided with peripheral drain to collect the Leachate and rainwater over flow.

Security Room& operating room: A security room at the entrance of disposal site to monitor availability of working staff, timing and number of trips of vehicle, is provided of size 3X3 m. beside, weigh bridge room of size 3 x 3m is also provided.

Building Block: A Building Block of size 3X3m is provided for the purpose of rest room on site.

Toilet with Septic Tank: A toilet with septic tank of size 2x2 meter& 3.4 x1.4 x1 cum respectively is provided for working staff.

Green Belt Development: A provision of green belt of 33 % area of total required area has been kept.

Plant & Machinery, Vehicle & Equipment

- **Weigh Bridge:** An Electronic Weigh bridge up-to 20 tons capacity is to be installed at the entrance to monitor the quantity of garbage delivered at the plant and outgoing goods weighing.
- Provision for a Tractor mounted loader has been kept in the proposal for movement of waste.
- Provision for simple processing machine has been kept in proposal for screening of biodegradable waste.
- Provision for electronic weighment for weighing of small quantity of compost/waste is kept in proposal.

Roads & Drainage Facilities: 3.5-meter-wide internal roads having length of 200 meter along with one sided drainage system are provided for ease of vehicle movement and storm water management respectively.

Water supply, electricity arrangements, safety equipment & culture: Provision of processing and disposal has been kept for Water supply, electricity arrangements, safety equipment & culture etc. Also a proposal of tube well at site has been made in the proposal.

6.5. Manpower Requirements

6.5.1. Manpower requirements for Collection and Transportation operations

The manpower requirement for Collection and Transportation activities is given in the following table. Street sweeping of Amravati town is considered in zone-1 and accordingly calculation is done.

Table 86: Manpower requirements for Collection and Transportation operations for Zone-I

No.	Type of Activity	Items	Manpower Requirements			
			Type	Criteria	Requirement	
1	Primary Waste C&T (DTDC)	DTDC Equipment- Hand Cart	Waste Collector	1 Person required per Unit	**34**	**Nos.**
2	Primary Waste C&T (DTDC)	DTDC Vehicle- 4 Wheel Mini Tipper	Driver & Helper	1 Driver and 1 Helper required per Unit	**84**	**Nos.**
3	Street Sweeping	Auto Tipper for Street Sweeping Transportation	Driver	1 Person required per Unit	**74**	**Nos.**
4	Street Sweeping	Street Sweeping	Street Sweeper	1 Person required per Unit	**966**	**Nos.**
5	Administration	-	Sanitary Supervisors	1 Person Required per 12500 Population	**33**	**Nos.**
6	Administration	-	Sanitary Sub-inspector (S.S.I.)	1 Person Required per 25000 Population	**17**	**Nos.**
				Total	**1208**	**Nos.**

Source: Consultant

Table 87: Manpower requirements for Collection and Transportation operations for Zone-II

No.	Type of Activity	Items	Manpower Requirements			
			Type	Criteria	Requirement	
1	Primary Waste C&T (DTDC)	DTDC Equipment- Hand Cart	Waste Collector	1 Person required per Unit	**18**	**Nos.**
2	Primary Waste C&T (DTDC)	DTDC Vehicle- 4 Wheel Mini Tipper	Driver & Helper	1 Driver and 1 Helper required per Unit	**45**	**Nos.**
3	Street Sweeping	Auto Tipper for Street Sweeping Transportation	Driver	1 Person required per Unit	**40**	**Nos.**
4	Street Sweeping	Street Sweeping	Street Sweeper	1 Person required per Unit	**0**	**Nos.**
5	Administration	-	Sanitary Supervisors	1 Person Required per 12500 Population	**18**	**Nos.**
6	Administration	-	Sanitary Sub-inspector (S.S.I.)	1 Person Required per 25000 Population	**9**	**Nos.**
				Total	**130**	**Nos.**

Source: Consultant

Table 88: Manpower requirements for Collection and Transportation operations for Zone-III

No.	Type of Activity	Items	Manpower Requirements			
			Type	Criteria	Requirement	
1	Primary Waste C&T (DTDC)	DTDC Equipment- Hand Cart	Waste Collector	1 Person required per Unit	**8**	**Nos.**
2	Primary Waste C&T (DTDC)	DTDC Vehicle- 4 Wheel Mini Tipper	Driver & Helper	1 Driver and 1 Helper required per Unit	**20**	**Nos.**
3	Street Sweeping	Auto Tipper for Street Sweeping Transportation	Driver	1 Person required per Unit	**18**	**Nos.**
4	Street Sweeping	Street Sweeping	Street Sweeper	1 Person required per Unit	**0**	**Nos.**
5	Administration	-	Sanitary Supervisors	1 Person Required per 12500 Population	**8**	**Nos.**
6	Administration	-	Sanitary Sub-inspector (S.S.I.)	1 Person Required per 25000 Population	**4**	**Nos.**
				Total	**58**	**Nos.**
Source: Consultant						

6.5.2. Manpower requirements for Processing and Disposal Operations

The manpower requirement for Processing and Disposal activities is given in the following table.

Table 89: Manpower requirements for Processing and Disposal Operations for Zone-I

S. No.	Type	Qualification	Experience	For Processing	For Disposal	Total
1.	General manager	Bachelor of Engineering (BE)	2-3 years	-	-	-
2.	Shift in-charge	Diploma	1 to 2 years	-	-	-
3.	Mechanic	Industrial Training Institute (ITI)	3 years	-	-	-
4.	Plant operator	Higher Secondary School	1-2 years	6	-	6
5.	Chemist	Bachelor of Science	3 years	-	-	-
6.	Accounts officer	Bachelor of Commerce	3 years	-	-	-
7.	Skilled worker	-	2-3 years	10	-	10
8.	Semi-skilled workers	-	-	5	2	7
9.	Unskilled worker	-	-	10	-	10
10.	Drivers	-	3-4 years	5	-	5
11.	Contractual labour	-	-	-	-	
Source: Consultant						

Table 90: Manpower requirements for Processing and Disposal Operations for Zone-II

S. No.	Type	Qualification	Experience	For Processing	For Disposal	Total
1.	General manager	Bachelor of Engineering (BE)	2-3 years	-	-	-
2.	Shift in-charge	Diploma	1 to 2 years	-	-	-
3.	Mechanic	Industrial Training Institute (ITI)	3 years	-	-	-
4.	Plant operator	Higher Secondary School	1-2 years	6	-	6

Table 90: Manpower requirements for Processing and Disposal Operations for Zone-II						
S. No.	**Type**	**Qualification**	**Experience**	**For Processing**	**For Disposal**	**Total**
5.	Chemist	Bachelor of Science	3 years	-	-	-
6.	Accounts officer	Bachelor of Commerce	3 years	-	-	-
7.	Skilled worker	-	2-3 years	10	-	10
8.	Semi-skilled workers	-	-	5	2	7
9.	Unskilled worker	-	-	10	-	10
10.	Drivers	-	3-4 years	2	-	2
11.	Contractual labour	-	-	-	-	
Source: Consultant						

Table 91: Manpower requirements for Processing and Disposal Operations for Zone-III						
S. No.	**Type**	**Qualification**	**Experience**	**For Processing**	**For Disposal**	**Total**
1.	General manager	Bachelor of Engineering (BE)	2-3 years	-	-	-
2.	Shift in-charge	Diploma	1 to 2 years	-	-	-
3.	Mechanic	Industrial Training Institute (ITI)	3 years	-	-	-
4.	Plant operator	Higher Secondary School	1-2 years	6	-	6
5.	Chemist	Bachelor of Science	3 years	-	-	-
6.	Accounts officer	Bachelor of Commerce	3 years	-	-	-
7.	Skilled worker	-	2-3 years	10	-	10
8.	Semi-skilled workers	-	-	5	2	7
9.	Unskilled worker	-	-	10	-	10
10.	Drivers	-	3-4 years	2	-	2
11.	Contractual labour	-	-	-	-	
Source: Consultant						

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7. Institutional Aspects and Capacity Building

7.1. Proposed Organizational Setup

Though the ULB plays the role of the principal implementer, it should partner with other important stakeholders as well. A three-tier system is suggested for effective implementation of the project as under.

- **MSWM Task Force**
- City level Committee to look in to overall Management of the MSWM system
- **MSWM cell**
- For Day to Day Management of MSWM System
- **MSW Monitoring cell**
- Prabag level cell to monitor the entire MSWM System

MSWM Task Force: This will be a multi-stakeholder, city-level committee consisting of representatives from: agencies directly responsible for sanitation; eminent persons and practitioners in civic affairs, health and urban poverty; representatives from shops and establishments; NGOs; representatives of unions of safaikaramcharis; sanitary workers; recycling agents, and so on. It will be responsible for:

- Appointing a MSWM Cell and providing overall guidance.
- Assigning institutional responsibilities.
- Undertaking quarterly review meetings.
- Take policy decisions on MSWM Management

The proposed Structure of the MSWM Task Force is given below

Table 92: Proposed Composition of MSWM Task Force	
President of Municipal Council	**Head**
Deputy President of Municipal Council	**Deputy Head**
Chief Officer	**Executive Head**
Chairman, Standing Committee	**Member**
Leader of House	**Member**
Leader of Opposition	**Member**
Political leaders	**Member**
NGO representatives working in urban management, sanitation, environment, etc.	**Member**
Representatives of commercial establishments/hotel associations	**Member**
Source: Proposed by the Consultant	

MSWM Cell: The responsibility of implementing projects will be the primary responsibility of the ULB and will be carried out in coordination with Prabhag-level ULB staff and contractors, CBOs/SHGs and NGOs as facilitators, etc.

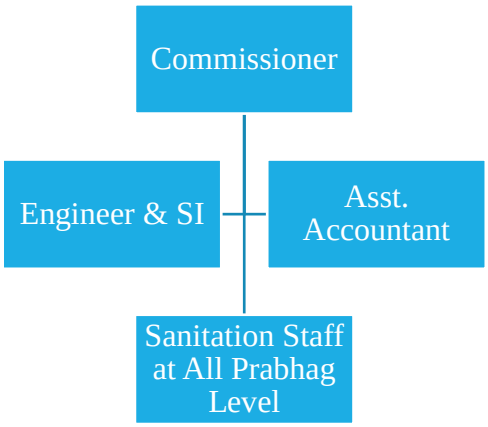

Table 93: Roles and responsibilities of MSWM Cell	
Commissioner	▪ Administrative/decision-making authority
Engineer/SI	▪ Providing support in implementation of MSW Project ▪ Supervising tasks carried out by Prabhag-level Sanitation staff, O&M tasks carried out by private operators/SHGs ▪ Implementing IEC at Prabhag-level and guiding the field staff and other stakeholders in the process ▪ Overseeing and coordinating capacity building programmes for staff ▪ Reporting progress made ▪ Holding bi-monthlyreview meetings with field level staff
Asst. Accountant	▪ Achieving targeted billing and recovery; targeted collection efficiency ▪ Ensuring timely payments to ensure continuation of tasks envisaged
Sanitary staff	▪ Carrying out field level works in delineated Prabhags ▪ Monitoring Daily road sweeping, D2D collection, O&M of toilets, etc ▪ Ensuring timely implementation of activities ▪ Identifying and motivating CBOs to partner with, and undertake, O&M, waste collection, etc ▪ Carrying out IEC programmes with identified stakeholders ▪ Following MIS and reporting schedules ▪ Communicating citizens' feedback to relevant authority

MSW Monitoring Cell: It is often observed that one of the hindrances in effective implementing of projects and its sustainability is lack of monitoring. The proposed structure of the Monitoring Cell includes a mix of councillors, head clerks, engineers and mukadams, as well as mohalla committee members and representatives of CBOs/SHGs.

Table 94: Roles and responsibilities of MSW Monitoring Cell	
Stakeholder	**Role**
Councillors	▪ Interfacing between public, mohalla samitis, ward committees and ULB ▪ Leading IEC activities at Prabhag level
Administrators/supervisors at ULB level	▪ Holding monthly meetings with MSWM Cell and troubleshooting ▪ Reporting to MSWM Task Force ▪ Being the bridge between MSWM Task & MSWM Cell
Mohalla committees	▪ Taking on a ‘watchdog’rolein monitoring CSP implementation ▪ Doing IEC activities and citizen interaction and involvement
NGOs/CBOs	▪ Community mobilisation, demand promotion ▪ Carrying out IEC activities ▪ Do training and capacity building

7.2. Training & Capacity Building Of ULB

For sustaining the training system on a long-term basis for all the municipal staff, a concept of "Trainer's Training" has to be developed. The qualified and experienced staff on behalf of affairs of municipal solid waste management has to be trained thoroughly either in the town or preferably in an institute of repute. These officers should be sent for refresher courses every year to keep them abreast with any developments in the field of solid waste management. These trained officers should then be the trainers for other municipal staff on a regular basis. Their duty schedule has to be prepared in such a manner that their training schedule is not disturbed by other officer's duties.

The orientation program, training program and awareness program should be carried out in the local/national/official language/English or a suitable mix of these languages as perceived to be effective. The Urban Local Body should tie up with the suitable institutions for organizing the orientation and training programs, and associate the local NGOs & schools/colleges for awareness generation.

Training – It is proposed that the Urban local Body should chalk out (I) a long term training program for the municipal staff and (II) regular orientation program for its management as well as elected Corporators as structured below:

- Orientation Program for the President of the Nagar Parishad CO and Officer In-charge of Solid Waste Management. Attempt should be made to involve the local elected legislature, if any (MP/MLA/MLC etc.), in the orientation program so that a political will may also be created through their active support.
- Training for the Engineers and Medical/Health Officers of the ULB and relevant officers from the PHE Department belonging to SWM and drainage activities.
- Training program for Chief Sanitary Inspector, Sanitary Inspectors/Workshop Supervisors etc.
- Training for Waste Workers and Sweepers
- Special training package for personnel manning treatment and disposal facility.

Module 1: Orientation Program for Corporators and Top Management

The orientation program should consist of the following:

- The importance of appropriate waste management from the point of view of health, hygiene and environment.
- Disadvantages and loss due to inappropriate management of Solid Waste and drainage.
- A detailed overview of the situation in ULB and how it can be improved to a desired level.
- The role of different stake holders such as elected Corporators, the Executives and the municipal staff and public.
- Examples of good practices in the country and abroad
- Relevance of the new rules such as Municipal Solid Waste (Management & Handling) Rules 2000 and Bio-Medical (Management & Handling) Rules 1998
- A broad action plan for improving the situation and tentative cost thereof (both capital investment as well as O&M) and
- The importance and role of MIS, IEC, sustained training and awareness generation

Module 2: Training for the Engineers and Medical/Health Officers of the Nagar Parishad and relevant officers from SWM and drainage activities

- The importance of appropriate waste management, health, hygiene and environmental benefits thereof
- Components of appropriate SWM (segregated storage for different sectors, collection, transportation, treatment and disposal) and drainage
- Details of each component (as above)
- The options for appropriate treatment and/or disposal of municipal solid waste including bio-medical waste (with details)
- Technical and financial details, planning elements and project formulation etc.
- Revenue generation and expenditure

- Institutional set up, organization of work elements and work norms
- Relevance of the new rules such as Municipal Solid Waste (Management & Handling) Rules 2000 and Bio-Medical Waste (Management & Handling) Rules 1998.
- Reporting of accidents as per the new Rules
- The use of MIS, the importance of sustained awareness generation and training and
- Passing on the baton to the subordinates – role as trainer for the subordinate staff.

Module 3: Training program for chief Sanitary Inspector, Sanitary Inspectors/Workshop Supervisor etc.

- The importance of appropriate waste management, health, hygiene and environmental benefits thereof
- Component of appropriate SWM management such as appropriate storage, collection, transportation, treatment and disposal.
- Work organization and work elements for carrying out the identified jobs
- Deployment of Drivers, Mechanics / Sweepers / Waste Workers for their respective jobs, monitoring and daily reporting to Municipal Commissioner / Executive Officer.
- Measure for Emergency at the site, occupational hazard and accident reporting.

Module 4: Training Program for Drivers and Workshop Mechanics

- The necessity of reducing multiple handling and multiple exposure of municipal solid waste and bio-medical waste, importance of segregated storage and collection, the necessity of keeping construction and demolition debris separate, importance of containerization etc.
- Importance and use of hydraulic container lifting mechanism / arrangement such as, dumper placer, tractor container carrier etc.
- Operation and maintenance of vehicles and equipment (as per necessity) especially the newly acquired ones, petty repair on the road during operation
- Maintenance of the Workshop
- All the functions to be carried out in the workshop (namely, routine repair and maintenance, washing, appropriate priming and painting) and
- Reporting (daily, weekly and monthly)

Module 5: Training Program for Waste Workers and Sweepers

- The importance of appropriate waste management, health, hygiene and environmental benefits thereof
- The important role of sweepers / waste workers in the whole chain of waste management
- The difference between efficient dedicated services and unplanned marginal service, the social relevance, appreciation of the community, self respect and betterment of career prospects for the workers and
- Taking care of health and hygiene.

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8. Community Awareness & Public Participation

The community participation is important to:

- Achieve the principles of reducing, reusing, and recycling waste.
- Discouraging littering of waste on streets and into drains, open spaces, water bodies,
- Promotes storage of waste at source, segregated as biodegradable and non-bio-degradable(so that hazardous waste and infected waste are kept separate).
- Achieve increased level of awareness about the efficient methods of waste management among the public through involvement of RWAs, or NGOs.

The following are the main expected outcomes of awareness programs and capacity building.

- **Door-to-door collection of waste in segregated form for onward processing;**
- **Increased knowledge of community at large about the importance of proper disposal of waste and its health, environmental and economic benefits**
- **Production of compost from bio-degradable waste and utility items from plastic waste linked to market/other appropriate**
- **Increased livelihood opportunities for kabari merchants, rag pickers, and safaikaramchari**
- **Community participation and developing habit of paying user charges**
- **Compliance of MSW rules**

8.1. Agency for Carrying out IEC activity

The ULB shall carryout the IEC activity or alternatively may hire appropriate agency having proven credentials in IEC activity. The hired agency by the ULB may be NGO, Society or Body Corporate. In case the ULB hires agency other than itself then that agency must possess at least following credentials in activities:

- Design and Implementation of household surveys, assessment and reporting
- Community awareness building for behaviour change and Information Education Communication (IEC) Programs related to solid waste management, sanitation, health and hygiene, economic and social well-being of rag pickers, sanitary workers, vulnerable groups etc. livelihood, composting etc.
- Capacity Building of local groups on livelihood, social safeguard, sanitation, health and environment impact due to improper disposal and handling of solid waste.
- The agency shall impart project specific training to them prior to deployment. Whenever services of NGO staff are found /noticed unsatisfactory by ULB they shall be removed/terminated by the ULB immediately as per direction of Competent Authority.

8.2. Program Objectives

8.2.1. Awareness Generation

The following objective would be attained through production of IEC materials and its usages at different level:

- Create awareness among the community, and prepare residents for upcoming project,inform about MSW rule, source segregation, health and environment impacts, roles of ULBs and ULB in the Project, etc. through web site, mass media communication strategies such as newspapers releases, hoardings, glow sign boards, radio, TV, street plays, etc.
- Design IECs best suitable to reinforce the messages given by agencies involved in implementation of PPP SWM in towns or other local initiatives at ULB level

8.2.2. Door to Door Waste Collection

- Establish a working and sustainable model at the local level to develop habit amongst residents for storing wet and dry household waste separately
- In case in the area where provisioning of community bin has been made awareness shall be generated for disposing waste in segregated fashion; and,
- Facilitate awareness amongst beneficiaries about paying for improved service standard and motivating beneficiaries for payment.
- Undertake programme in a phased manner to ensure community participation in waste segregation. For this purpose, regular meetings shall be arranged by the NGOs with representatives of local resident welfare associations, local groups etc.

8.2.3. Social Safeguard of Sanitary Workers

- Training of sanitary workers for improved health and economic status of sanitary workers through regular use of personal protective equipment (PPE)/ protective gears.

8.2.4. Income Generation through Waste

- Training and handholding of rag pickers and kabari merchants to be active members of private operators for door to door collection of segregated waste and its disposal at identified locations.

8.3. Target Groups

The ULB is expected to network, coordinate and consult with the following target groups and beneficiaries:

- ULBs for promoting town level Program and support consultations)
- ULB officials
- Mayor/Chairman
- All ward councillors in Program towns/Board members of Urban Local Bodies
- Education Department
- Health Department
- Pollution Control Department
- Officials of leading newspapers within town
- Senior citizen forum, clubs, local samities, or any other influential groups
- Colleges, and institutes, National Social Service (NSS), National Cadet Corps (NCC), Scouts and Guide, Eco-clubs in schools, etc.
- Men, women, and children in wards including poverty pockets
- Local samities or groups (newly formed within the Program or existing)
- School Principals, Teachers, and Children in wards
- VyaparMandal
- Hotel Association
- Dharamshala Association
- Identified Rag pickers as per census conducted within program
- Formal and informal waste traders
- Maid servants (male and female)
- Sanitary workers, security persons placed at sanitary land filled sites, sanitary workers engaged in drain and septic tank cleaning and other related persons
- Any others, as per need and requirements

8.4. Suggested Approach

The ULB can facilitate discussions amongst residents and local groups through brochures, pamphlets, and any other appropriate methods to disseminate identified information to individuals. The following are some of the proposed approach and methodologies for awareness generation but not limited to. The ULB is expected to

explore the suggested approach best suitable to local needs and requirements. Other local innovations and related initiatives if any will be appreciated.

8.4.1. Baseline Survey/data collection

Conduct baseline survey to assess the socio-economic status of target groups, willingness and affordability of resident to pay, census of rag pickers, and formal and informal traders involved in collection of plastic and other waste. This baseline information would help the ULBs to decide the user's fees as per economic status and category of users such as shops, hotels, dharamshalas, temples, vegetable mandi, marriage halls/gardens, hotels/restaurants, etc.

8.4.2. Stakeholders Analysis

- Any intervention will affect stakeholders differently; some of the stakeholders can influence the decision-making process. It is important therefore to identify stakeholders who might have a negative impact (such as informal rag pickers) and those who can influence the decision-making process (such as business owners and neighbours of site of ISWM Facility).ULB need to consider the proposed list of stakeholders and related categories for doing the stakeholder analysis.
- ULB shall assess who are the different stakeholders in the project; does the project threaten the interest of certain stakeholders; what potential conflicts among the stakeholders can the project create etc. These would help to include messages in IEC materials and organise training programs accordingly.

8.4.3. Stakeholders Consultation

- Organise formal or informal process of consultation with resident in city locations or through door-to-door initiatives. The main objective is to establish meaningful interaction between municipal officers, citizens, and other stakeholders and to obtain consensus on a concrete plan of action. Representative groups should be consulted to ascertain their perceptions of the SWM services, their expectations, willingness to support and participate in the SWM program and willingness to pay for the services, the mode of payment, and the periodicity of payment.
- The most effective way to ensure that the right messages reach all participants is to launch a door-to-door awareness campaign. This step is very important. At all stages of the project, it establishes continuing contact with the participants, provides feedback, and builds a bond between the project and the beneficiaries. It kills any space for rumour mongering and builds the confidence of the people, who begin to believe that the project means to deliver the goods.
- The ULB shall facilitate the initial ward cleaning with support from the ULB to develop confidence and faith amongst households that some good practices on SWM will start in their area. This can be an entry point activity in the ward for starting a door to door garbage collection system.
- Religious leaders play a significant role in changing people's minds. Recommendation from a well-respected religious leader to keep surroundings clean, avoid littering, and manage waste as advised by the NGO will go a long way toward improving the situation in urban areas.
- Coordinate with hotel and market associations, institutions, etc. to ensure garbage collection time best suitable to local needs and active participation in collection of user's fees.

8.4.4. Community Organisation

- IdentifySwachta-Samities/RWAs that are taking some initiatives at the local level with limited technical skills and resources. The NGO can reorganise the group, and do the required capacity building and utilise their resources in initiating door to door garbage collection with support from sanitary workers not employed by ULB or working on contract, rag pickers etc. In the absence of existing groups it is expected to form new such groups. These groups can be named as 'SWACH MAHARASHTRA' in each ward/mohalla.
- The ULB can form clusters within town as per zone boundaries marked by ULBs. The group formed at the cluster level will be ultimately responsible to ensure door to door garbage collection, source segregation, payment for the services, maintenance of the dustbins, etc.

8.4.5. Awareness activities

- Implement campaign within government schools especially regarding source segregation, health and environment impact. Organise regular meetings with principals, teachers, and students to explain the need for change and the usefulness to society of new ways to manage waste. The message can be reinforced by holding essay, debate, or drawing and painting competitions on the subject and publicizing the winning contestants. The leading schools could be persuaded to work as role models for other schools in taking up awareness campaigns in the city through their students. Such campaigns should be highly publicized, and other schools should be persuaded to follow suit.
- Prepare hoardings/glow sign boards and do wall writing at prominent locations on source segregation and health and environment impact. In addition, other mass media communication strategy can be used for community awareness on identified topics at large such as, TV and radio audio and visual spots.
- Organise regular street plays for awareness about waste management and motivate non-participating residents. The main objectives of this tool of communication will be to
    - Attract residents to participate in the on-going SWM program
    - Emphasize the importance of segregation and disposal of household garbage in keeping streets clean
    - Drive home the importance of garbage reduction and waste recycling and discourage use of plastics in daily life.
    - Disseminate information on the benefits of composting wet waste and kitchen waste.

8.4.6. Door to Door Garbage Collection

The ULB should conduct door-to-door garbage collection in all wards in a phased manner. It may start with any ward which is deprived of the services, has an educated population, is relatively better off economically, and is willing to pay user charges. This will have a demonstration effect and helps to start activities simultaneously in other wards as well. The following activities are proposed for implementation with support from ULB and private operator:

- Identifying wards, colonies, or areas where there is no proper mechanism of street sweeping and door-to-door garbage collection, where the ULB has future plans to initiate door-to-door collection of household waste; or where any local groups have taken initiatives using their own resources. The areas identified will be finalized in consultation with the officials from ULBs, 'SWACH MAHARASHTRA' groups.
- Facilitate ULBs to depute 1-2 sweepers for road cleaning in identified wards area where door to door garbage collection is likely to start to gain confidence amongst community.
- Facilitate developing a working model for disposing household waste into community bins only. This is essential to develop habits for disposing household waste at the appropriate place. It is important to collect waste in segregated form. But depending upon the situation of the town and mind set of residents, developing proper disposal habits and paying for the facility is more important.
- ULB shall ensure proper disposal of collected waste from the community bins located on identified locations in the market
- Facilitate ULB to remove dust bin from the ward and pilot a dustbin free zone. Organise plantation at dustbin site with support from SWACH MAHARASHTRA group. The team of waste collector from private operator will be responsible for watering the plant regularly and its fencing.
- Facilitate members of 'SWACH MAHARASHTRA' to become facilitators/motivators for starting similar activities in other wards
- Supervise a waste collection team with support from SWACH MAHARASHTRA. This waste collection team and supervisor of ULB will be expected to review whether waste is segregated at source or not with support from agency/SWACHMAHARASHTRA group. The supervisor needs to request HH to give waste in segregated form only as much as possible.
- The waste collection team need to compile daily information on source segregation in a prescribed format. This will help to assess the trend whether waste is segregated at source or not. ULB will be expected to make provision for giving award to HHs, hotel and market associations etc. for giving segregated waste and payment of user's charges on a regular basis.
- Create a help-line and a mechanism for receiving public complaints and addressing them quickly.

- Forming small working groups represented by ULB officials, ULB 'SWACH MAHARASHTRA' group, and ward councillors for monthly review, documenting the initiatives taken, and monitoring the public grievances.
- Preparation of operation and maintenance plan and ensure its timely completion as per schedule.

8.4.7. Income Generation from Waste Collected

Recycle paper and plastic carry-bags; promotes the concepts of waste segregation, waste minimization, and waste recycling; and provides employment opportunities. The following activities can be conducted:

- Awareness generation amongst stakeholders regarding health hazards of plastic and related livelihood opportunities.
- Create awareness amongst beneficiary households for source segregation of waste including plastic.
- Organise workshop amongst school children and women kitty groups/self- help group
- Train informal rag pickers to become professional waste workers in the private sector.

8.4.8. Social safeguard of waste collector and sanitary workers

- Ensure capacity building of rag pickers, sanitary workers, vehicle drivers, guards/security person in-charge stationed at sanitary land filled site for use of protective gear, health and environment impact due to improper handling and disposal of solid waste
- Promote use of protective gears amongst sanitary workers engaged SWM Service, and aware them about health and economic impact.
- Monitor and document use of protective gears amongst sanitary workers and rag pickers as per identified PPE (personal protective equipment) safeguard checklist. Plan motivational campaigns for its regular use as per need.

8.4.9. Role of Women associations in SWM

Women are generally found to be more concerned with the maintenance of health and hygiene, and they are involved in domestic waste management on a day-to-day-basis. Awareness among women in small group could be organised. The literature produced in very simple, understandable language and graphics to create awareness among women are also disseminated.

8.4.10. Capacity building of local groups

- Organise training program for SWACH MAHARASHTRA group, and RWAs to motivate the community toward waste management is important for ensuring the sustainability of a system. All stakeholders need to be oriented toward segregation at source and to understand the problems and health issues concerned with inefficient disposal of municipal solid waste.
- Rag pickers and kabadiwalas (itinerant waste retrievers) should preferably be involved for door to door collection of source-segregated waste. Rag pickers need to be educated on the ill effects of abusing alcohol and drugs, rummaging through garbage piles without safety gear, contracting infections through unsafe handling of waste, and so forth.
- Training in the right method of segregation and collection of waste should be given. They should also be taught to manage their time and to follow the route plan for each sector. They should be taught soft skills to interact with residents and to promote congenial working relations with their partners.

8.5. Expected Outcomes

8.6. Action Plan for Awareness Generation on SWM

Above are some of the awareness generation activities which may change according to changing needs of the Program requirements. During the Implementation Period, some new activities can be added as per the identified requirements. The ULB is expected to prepare a detailed action plan for carrying out at least the following activities for awareness generation for implementation.

OUTPUT-1: IMPROVED AND INCREASED SOLID WASTE MANAGEMENT SERVICES THROUGH AWARENESS GENERATION

No.	Activity/Issues	Indicators	Outcome	Remarks/suggestion	Year
1	***Baseline survey within the project area***	Data on no. of rag pickers, FHH, formal/informal traders in the service area for a) socio economic status of community b) access to nearest community bins, c) willingness and affordability to pay by women headed HHs in particular and others in general d) health problems faced by sanitary workers, e) perception about use of protective gears, f) status of health benefits etc.	Roster of rag picker, women headed HHs and status report vulnerable groups for accessibility, willingness to pay, etc. At least 10% of the target groups are surveyed. 100% census survey of rag pickers and affected persons Ward wise focus group discussions organized with stakeholders having negative impact or influence decision	Questionnaire for undertaking survey Identification of key issues and its social, economic and environmental impact	*Year 1*
2	***Public Consultations***	With various stakeholders in each lanes of the wards across towns (formal)	To be Covered in all Wards. Initial 24 months 30% willingness to support and participate in the SWM program and willingness to pay for the services. Gradual increase for 100%	Average 2-3 meetings in each wards during initial 12 months At least 30% participants are women Several informal meetings as per local requirements	*Year 1-3*
3	***Formation of local group***	Reorganize the existing local groups if or organize the new groups	To be Covered atleast in 50% of Wards. Group to take up ward level SWM activities.	At least one groups in each ward. At least 30% are women members	*Year 1-2*
4	***SWM school Campaign***	Identify no. of secondary government and private schools interested to participate for information dissemination at home and peer group.	40% coverage of school students from secondary class. Organize rally and drawing competition at least in one school from the ward.	At least 30% participation of girls in awareness campaign Campaigns 1 in each wards during initial 6-8 months on world Environment Day.	*Year 1-2*
5	***Awareness through mass media***	Display of hoardings/glow sign boards on source segregation and health and environment impact	1 in each ward at prime locations Enhanced publicity and awareness amongst passers by	Identify hoarding/glow sign board space. Display of hoarding/glow sign boards for at least three to six months.	*Year 1-2*
6	***Street Plays***	Street plays on prime hot spots, during local level trainings, rallies, competitions, public consultations etc.	At least 2 in each ward and it prime locations Attract participants and enhanced publicity.	30% women in street group team will be appreciated The street play can also be video documented for its use in regular meetings with community.	*Year 1-2*

OUTPUT-2: DOOR TO DOOR GARBAGE COLLECTION, COLLECTION OF USER CHARGES, HANDLING OF GRIEVANCES

No.	Activity/Issues	Indicators	Outcome	Remarks/suggestion	Year
7	***Door to door garbage collection***	Door to garbage collection by sanitary workers, gradual increase in source segregation	Initial 24 months 40% then gradual increase in collection of door to garbage to 100% Initial 24 months 10% and then gradual increase to 30% of source segregation of HH waste.	-	*Year 1-3*
8	***Door to door garbage collection***	Collection of user charges	Initial 6 months free collection of garbage for confidence and awareness building Initial 24 months 30% and then gradual increase in collection of user charges to 100%.	Subsidized rates for women headed, BPL and vulnerable groups to be decided by Private Operator/ULB.	*Year 2-3*
9	***Door to door garbage collection***	Creation of helpline for grievance handling	One helpline toll free number and mobile number in each town Redressal of grievances within 24 hours of reporting Maintenance of complaint redressal register.	Ensure regular documentation and its redressal. Ensure to receive the feedback from beneficiaries making complaint.	*Year 1-2*

OUTPUT-3: INCOME GENERATION FROM WASTE COLLECTED

No.	Activity/Issues	Indicators	Outcome	Remarks/suggestion	Year
11	***Formation of Rag picker cooperatives/groups***	Direct collection from HHs, rag pickers allowed to collect waste from community bins, land filled sites, training on production of valuable HHs utility item from waste, etc.	Increased self-confidence economic status, organized group of rag pickers Enforced levy eco-surcharges on hard to recycle products.	-	*Year 1-2*

OUTPUT-4: REHABILITATION AND SOCIAL SAFEGUARD OF SANITARY WORKERS AND AFFECTED PERSONS

No.	Activity/Issues	Indicators	Outcome	Remarks/suggestion	Year
12	***Facilitate use of protective gear during handling of solid waste***	Use of protective gear amongst sanitary workers, vehicle drivers, rag pickers, waste collectors, etc. during source segregation, collection, transportation and disposal and drain cleaning.	Initial 24 months use of protective gear to 30%. 15% are women users Gradual increase for use of protective gear to 70%.	30% are women users	*Year 2-3*
14	***Financial support to Rag Pickers***	Tools and equipment for efficient functioning in the informal sector	Initial 24 months to 10% and gradual increase to 100%	30% are women rag pickers	*Year 2-3*

OUTPUT-5: CAPACITY BUILDING OF LOCAL GROUPS

No.	Activity/Issues	Indicators	Outcome	Remarks/suggestion	*Year*
15	***Orientation of local group, RWA, etc.***	Enhanced awareness and active participants on segregation at source and to understand the problems and health issues concerned with inefficient disposal of municipal solid waste	In all wards	30% are women users	*Year 2-3*
16	***Orientation of Rag pickers and kabadiwalas***	Enhanced awareness and increased economic and health benefits on the benefits of segregation and the economic profits through selling of recyclable items, ill effects of abusing alcohol and drugs, rummaging through garbage piles without safety gear, contracting infections through unsafe handling of waste, etc.	100% identified rag pickers are oriented. Organize at least 3 training programs	Same as above	*Year 2*
17	***Orientation of sanitary workers and rag pickers***	Enhanced awareness and increased Health benefits on use of PPP and health concerns, good behavior practices, and right method of segregation and collection of waste.	100% identified rag pickers are oriented. Organize atleast 3 training programs.	Same as above	*Year 2*
18	***Orientation of sanitary workers, and rag pickers***	Increased awareness and improved well being on various welfare schemes related to education, health, employment, houses, etc.	Gradual increase in utilization of benefits to 30%	30% are women beneficiary	*Year 2-3*

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9. Other O&M Aspects

9.1. Key O & M Requirements

All elements require appropriate operation and maintenance system. There are following important elements of the solid waste management system, namely: Primary collection and Road sweeping, Secondary collection, Transportation vehicles, Transfer station, Treatment facilities and Landfill site.

9.1.1. Primary Collection

Table 95: Operation and maintenance Requirements for Primary Collection

Component	Operation Requirement	Maintenance Requirement
Broom, basket, plate, spade and other tools	Used by sweepers/sanitary workers. Proper storage and locking facility is needed to keep the tools	Theft is a major problem; otherwise tools should able to function till their designated life span.
Wheel barrows	--do--	Theft of bucket/wheel barrow is a major problem. Frequent repairing of wheel barrows may be required if manhandled/ handled by many people. Normal defects are – breaking of welding/ wear and tear of wheels/ corrosion of body etc

Suggestions :

- Regular upkeep and rotation of the wheelbarrows.
- Proper record keeping of number of equipment in use/under repairing at ward level/zone level
- Equipment should be formally allotted to worker/s as per the availability and requirement
- Specifications should be finalized after proper discussions with end users. It should be ensured that the equipment procured confirms to the Bureau of Indian Standard Specifications, if available. In case the BIS specifications are not available, the equipment should be of standard specifications with commitment from suppliers for providing after sales service and preventive maintenance and which could be easily maintained in Amravati.
- It is preferable to use new equipment on pilot basis before procuring bulk quantity.
- Wheels should be sturdy and have double ball bearings
- Buckets should be painted with anticorrosive paint, bottom holes for drain off , easily removable and appropriate capacity
- Specified place should be designated for storing of wheel barrows
- Daily cleaning and greasing at regular interval should be ensured
- It is better to allow some minor amount i.e. Rs 60 per month for monthly upkeep of equipment to end user ,which would ensure timely repairing as well as motivate to keep the equipment in order.

9.1.2. Secondary Collection Equipment

Table 96: Operation and maintenance Requirements for Secondary Collection Equipments		
Component	**Operation Requirement**	**Maintenance Requirement**
Containers	• Used by sanitary workers. Proper location, pucca base and raised platform are needed to keep the containers. • Todecideproperlocationisamajorproblema smostpropertyownersdonotwant community containers near their premises. • Containerofsufficientsizesshouldbeplaced ownsideroadsneitherspillingtakesplacenor theycauseobstruction to the traffic.	• The containers get damaged during unloading and lowering on the ground. • When platform is not raised and pucca, then bottom of container may be damaged due to corrosion. • Sometimes containers get damaged due to accident. • Containers should be compatible with waste carrying equipments.
Suggestions : • Specify location and size on need based, waste receiving quantity, • Regular upkeep and maintenance mechanism to be in place. • Proper record keeping of number of containers in use/under repairing/spare at ward level/zone level • Containers should be formally allotted to vehicle as per the availability and requirement • Specifications should be finalized after proper discussions. It is preferable to use new equipment on pilot basis. • It is better to allow some minor amount i.e. Rs 500 per month for monthly upkeep of equipment to workshop in charge, which would ensure timely repairing.		

9.1.3. Transportation Vehicles

Table 97: Operation and maintenance Requirements for Transportation Vehicles		
Component	**Operation Requirement**	**Maintenance Requirement**
Transportation vehicles	• Vehicle operated by operators which could be either municipal employees or provided by private operators if operation is given on contract. • Proper routing to be decided to avoid zigzag movement and congested areas. • Separate vehicles for biodegradable and non biodegradable/ bulk waste	• Regular maintenance is required as suggested by the manufacturer. • Vehiclemaintenancechecklistsh ouldbepreparedforpreventivem aintenance. • Proper inventory level should be maintained or if maintenance to be contracted out, then annual maintenance contract should be in force. • A training and health check schedule should be prepared and adhered for the staff.
Suggestions : • Regular upkeep and maintenance mechanism of the vehicles should be in place. • Proper record keeping of number of vehicle in use/under repairing at ward level/zone/city level. • Vehicle should be formally allotted to operator/s as per the availability and requirement • Specifications should be finalized after proper discussions with end users. It is preferable to use new equipment on pilot basis. • New vehicle should be purchased after ensuring proper operation and maintenance system in place. • It is better to allow some minor amount i.e. Rs 5000 per month for monthly upkeep of vehicle to workshop in charge, which would ensure timely repairing.		

9.1.4. Processing Plant

Table 98: Operation and maintenance Requirements for Processing Plants		
Component	**Operation Requirement**	**Maintenance Requirement**
Processing Plant	• Processing plant may be operated upon either by municipal staff or by private agency depending upon the contract conditions. • During monsoon period, processing will be required to be carried out in monsoon shed. • Proper arrangement for storage of useful material and transport of residual to landfill site has to be ensured.	• Regular maintenance of vehicle, equipment, and civil works is required. • Vehicle and equipment maintenance checklist should be prepared for preventive maintenance.
Suggestions : • Regular upkeep and maintenance mechanism of the plant should be in place. If the entire system is in private hands, proper supervision will be required at municipal level. • Proper record keeping of number of vehicle arrived, quantity and nature of waste, processed quantity, quantity of useful product and residual should be ensured. • Specifications should be finalized after proper discussions with end users if to be maintained by municipality otherwise private entrepreneur will be held responsible. • It is better to allow disposal of some minimum amount per month for upkeep of transfer station to workshop in charge, which would ensure timely repairing, if it is maintained by municipality otherwise responsibility will be of private entrepreneur.		

9.1.5. Sanitary landfill site

Table 99: Operation and maintenance Requirements for Sanitary landfill site		
Component	**Operation Requirement**	**Maintenance Requirement**
Sanitary Landfill Site	(a)SLF site should be fully secured and developed according to MSW (M&H) Rules, 2000. (b)Waste subjected to land filling should be non-biodegradable nature. (c) Waste should be covered and well compacted at the day end with minimum 10- 15 cm of soil or inert material. (d) Prior to commencement of monsoon season, an intermediate cover of 40- 60 cm thickness of soil should be placed with proper compaction and grading. (e) Proper arrangement for drainage, leachate and landfill gas management should be made. (f) After completion of landfill site, a final cover should be provided before closure of the site.	(a) Monitoring of air quality and water quality on periodical basis. (b) A vegetation cover shall be provided and maintained over the completed site. (c) Post closure care should be conducted for at least 15 years and long term monitoring shall consist of followings : i. Maintaining the integrity and effectiveness of the final cover. ii. Monitoring leachate collection system iii. Monitoring of ground water iv. Maintaining and operating the landfill gas collection system
Suggestions : • SLF site should be given to experienced private entrepreneur on Design, Build, Operate, Maintain and Transfer (DBOMT) basis. • Regular upkeep and maintenance mechanism of the SLF site should be in place. If the entire system is in private hands, proper supervision will be required at municipal level. • Proper record keeping of number of vehicle arrived; quantity and nature of waste should be maintained.		

9.2. Management Information System

The following information system is proposed with different levels of Waste Management System.

Table 100: Proposed Management Information System

Sr. No.	Indicator	Measured Value	Baseline Data Required	Ongoing Data Required	How and when to be measured
1	Door to Door Collection Coverage	%age of total households covered in each ULB	Total number of households in each ULB.	Number of Households being served in each ULB	Monthly Inspection of Complaints records, Log books (to be signed by the residents on monthly basis) and "Daily Monitoring Reports" by ULB
2	Extent of segregation in the MRFs	% age of total waste collection in each ULB	Total Waste to be collected and transported to ISWM facility from each ULB in Project Area	Waste arriving in vehicles in a segregated manner Total Waste arriving at ISWM Facility	Monthly Inspection of "Daily Monitoring Reports" by ULB
3	Collection Efficiency	%age of total waste generated in each ULB	Total waste generated shall be calculated based on the number of sources and their unit generation rate.	Total waste collected from the each ULB in the project Area Total waste generated shall be authenticated by the ULB after review of the first three months collection of MSW by the ULB or Private Agency. The quantity of waste generated shall be revised every 3 months by the ULB.	Monthly Inspection of "Daily Monitoring Reports" by ULB
4					
a)	Daily clearing of waste	%age of total bins deployed in each ULB	Total number of bins to be deployed in each ULB in the Project Area as per the Approved DPR, to be reviewed	Bins with any of the mentioned (a) to (e)	Monthly Inspection of "Daily Monitoring Reports" by ULB
b)	No overflow of MSW from the Bins	%age of total bins deployed in each ULB			
c)	Weekly cleaning and disinfection of the Bins	%age of total bins deployed in each ULB			
d)	No breakages and cracks	%age of total bins deployed in each ULB			
e)	No dislocation of covers of the Bins	%age of total bins deployed in each ULB			
5					
a)	Protective clothing for workers	For each worker employed for the Project	Total number of vehicles to be deployed		Monthly Inspection of "Daily Monitoring Reports" by ULB
b)	Cleaning and	%age of vehicles deployed		Vehicles cleaned at ISWM	Monthly

Table 100: Proposed Management Information System					
Sr. No.	**Indicator**	**Measured Value**	**Baseline Data Required**	**Ongoing Data Required**	**How and when to be measured**
	disinfection of vehicles	for the Project		Facility	Inspection of "Daily Monitoring Reports" by ULB
c)	Compliance to fuel emission norms	For all the vehicles		Vehicles checked for certificate for pollution control by SPCB or any authorized body.	
d)	Possession of driving license and Registration Certificate for drivers and vehicles	For all the vehicles		-	
6					
a)	Quantity of waste to be landfilled	%age of waste being landfilled, waste with "Fit for Landfilling" waste	-	Weighing of waste with "Fit for Landfilled" certificate	"Daily Weigh Sheet" for the waste being landfilled.
b)	Quality of Waste to be landfilled	%age of organic content in waste being landfilled	-	Weekly test data for quality of waste	
c)	Waste to be sighted for more than 4 days in areas except the designated areas	Number of days of waste sighting	-	Number of days when waste is sighted in areas except the designated one in a month	Monthly Inspection of "Daily Monitoring Reports" by ULB
d)	Billing of User Charges	%age of users billed	Number of establishments, to which the services of the Project will be availed.	Number of bills issued by ULB	Copy of bills issued by ULB/Private Operator
Source: Proposed by the Consultant					

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10. Summary of Cost Estimates

10.1 Cost Estimates for Collection and Transportation

Cost of Collection & Transportation system is not considered in the DPR, because ULB already have appointed separate agency for Collection & Transportation for 9 Years.

10.2. Cost Estimates for Processing and Disposal

10.2.1. Capital Expenditure for Processing and Disposal of Zone-I

The following is the summary of Capital Expenditure for Processing and Disposal. The details of estimates is given in the annexure.

Table 101: Capital Expenditure for Processing and Disposal

No.	Details	Amount (in Rs.)
A	**Waste Processing**	
1	Cost Estimates for Civil Works of Dumping Yard	24,59,892.00
3	Cost Estimates for Civil Works of Materials Recovery Facility (MRF) Shed	51,93,219.00
3	Cost Estimates for Civil Works of Windrow Platform	3,30,91,278.00
4	Cost Estimates for Civil Works of Bio-Gas Plant	2,55,90,000.00
	Sub Total (A)	**6,63,34,389.00**
B	**Waste Disposal**	
5	Cost Estimates for Civil Works of Simple Landfill Site	5,00,76,643.00
	Sub Total (B)	**5,00,76,643.00**
C	**Site Development**	
6	Cost Estimates for Civil Works of Security & Operating Room	3,87,429.00
7	Cost Estimates for Civil Works of Entrance Gate	0.00
8	Cost Estimates for Civil Works of Toilets	2,51,373.30
9	Cost Estimates for Civil Works of Drainage Works	10,87,322.00
10	Cost Estimates for Civil Works of Fencing Works	0.00
11	Cost Estimates for Civil Works of Pavement Works	12,81,997.00
12	Cost Estimates for Biomining of Old Dumped Waste	5,54,16,732.00
13	Cost Estimate For Green Belt Development	3,21,057.00
14	Cost Estimates For Building Block	2,27,232.00
15	Cost Estimate For Fire Safety Works	78,192.00
16	Cost Estimates For Water Supply Works	5,02,085.00
17	Electricity Arrangement, Culture & Safety Equipments	18,72,192.00
18	GST for Civil work @ 12 % (Item no. 2+3+4+5+6+7+8+9+10+11+12+14+15+17)	1,44,56,343.00
	Sub Total (C)	**7,58,81,954.30**
D	**Plant & Machinery, Vehicle and Equipments**	
19	Cost Estimates for Plant & Machinery, Vehicle & Equipments	6,14,09,609.00
	Sub Total (D)	**6,14,09,609.00**
	TOTAL (=A+B+C+D)	**25,37,02,595.30**
Source: Consultant		

10.2.2. O&M Expenditure for Processing and Disposal Zone-I

The following is the summary of Annual O& M Expenditure for Processing and Disposal. The detail of estimates is given in the annexure.

Table 102: Annual O&M Expenditure for Processing and Disposal		
No.	**Details**	**Amount (in Rs.)**
1	Manpower Cost	1,06,37,195.00
2	Fuel Cost for Operation of Motorised Vehicle& Electricity at Processing and Disposal Site	6,07,500.00
3	Repair & Maintenance for Vehicles and Equipments	9,47,161.00
	TOTAL	**1,21,91,856.00**
Source: Consultant		

10.2.3. Capital Expenditure for Processing and Disposal of Zone-II

The following is the summary of Capital Expenditure for Processing and Disposal. The details of estimates is given in the annexure.

Table 103: Capital Expenditure for Processing and Disposal		
No.	**Details**	**Amount (in Rs.)**
A	**Waste Processing**	
1	Cost Estimates for Civil Works of Dumping Yard	15,17,996.00
3	Cost Estimates for Civil Works of Materials Recovery Facility (MRF) Shed	42,65,938.00
3	Cost Estimates for Civil Works of Windrow Platform	2,11,67,800.00
4	Cost Estimates for Civil Works of Vermi Pits	0.00
	Sub Total (A)	**2,69,51,734.00**
B	**Waste Disposal**	
5	Cost Estimates for Civil Works of Simple Landfill Site	0.0
	Sub Total (B)	**0.0**
C	**Site Development**	
6	Cost Estimates for Civil Works of Security & Operating Room	3,87,429.00
7	Cost Estimates for Civil Works of Entrance Gate	0.00
8	Cost Estimates for Civil Works of Toilets	2,51,373.30
9	Cost Estimates for Civil Works of Drainage Works	5,90,224.00
10	Cost Estimates for Civil Works of Fencing Works	0.00
11	Cost Estimates for Civil Works of Pavement Works	6,41,165.00
12	Cost Estimates for Biomining of Old Dumped Waste	0.00
13	Cost Estimate For Green Belt Development	2,85,384.00
14	Cost Estimates For Building Block	2,27,232.00
15	Cost Estimate For Fire Safety Works	52,128.00
16	Cost Estimates For Water Supply Works	5,02,085.00
17	Electricity Arrangement, Culture & Safety Equipments	6,64,932.00
18	GST for Civil work @ 12 % (Item no. 2+3+4+5+6+7+8+9+10+11+12+14+15+17)	35,80,395.00
	Sub Total (C)	**71,82,347.30**
D	**Plant & Machinery, Vehicle and Equipments**	
19	Cost Estimates for Plant & Machinery, Vehicle & Equipments	3,66,56,525.00
	Sub Total (D)	**3,66,56,525.00**
	TOTAL (=A+B+C+D)	**7,07,90,606.30**
Source: Consultant		

10.2.4. O&M Expenditure for Processing and Disposal for Zone-II

The following is the summary of Annual O& M Expenditure for Processing and Disposal. The detail of estimates is given in the annexure.

Table 104: Annual O&M Expenditure for Processing and Disposal		
No.	**Details**	**Amount (in Rs.)**
1	Manpower Cost	70,47,785.00
2	Fuel Cost for Operation of Motorised Vehicle& Electricity at Processing and Disposal Site	4,25,000.00
3	Repair & Maintenance for Vehicles and Equipments	4,91,161.00
	TOTAL	**79,63,946.00**
Source: Consultant		

10.2.5. Capital Expenditure for Processing and Disposal of Zone-III

The following is the summary of Capital Expenditure for Processing and Disposal. The details of estimates is given in the annexure.

Table 105: Capital Expenditure for Processing and Disposal		
No.	**Details**	**Amount (in Rs.)**
A	**Waste Processing**	
1	Cost Estimates for Civil Works of Dumping Yard	8,71,115.00
3	Cost Estimates for Civil Works of Materials Recovery Facility (MRF) Shed	33,86,431.00
3	Cost Estimates for Civil Works of Windrow Platform	1,12,31,655.00
4	Cost Estimates for Civil Works of Vermi Pits	0.00
	Sub Total (A)	**1,54,89,201.00**
B	**Waste Disposal**	
5	Cost Estimates for Civil Works of Simple Landfill Site	0.0
	Sub Total (B)	**0.0**
C	**Site Development**	
6	Cost Estimates for Civil Works of Security & Operating Room	3,87,429.00
7	Cost Estimates for Civil Works of Entrance Gate	0.00
8	Cost Estimates for Civil Works of Toilets	2,51,373.30
9	Cost Estimates for Civil Works of Drainage Works	5,90,224.00
10	Cost Estimates for Civil Works of Fencing Works	0.00
11	Cost Estimates for Civil Works of Pavement Works	6,41,165.00
12	Cost Estimates for Biomining of Old Dumped Waste	0.00
13	Cost Estimate For Green Belt Development	2,49,712.00
14	Cost Estimates For Building Block	2,27,232.00
15	Cost Estimate For Fire Safety Works	34,752.00
16	Cost Estimates For Water Supply Works	5,02,085.00
17	Electricity Arrangement, Culture & Safety Equipments	4,25,940.00
18	GST for Civil work @ 12 % (Item no. 2+3+4+5+6+7+8+9+10+11+12+14+15+17)	22,00,611.00
	Sub Total (C)	**55,10,523.30**
D	**Plant & Machinery, Vehicle and Equipments**	
19	Cost Estimates for Plant & Machinery, Vehicle &Equipments	2,42,55,625.00
	Sub Total (D)	**2,42,55,625.00**
	TOTAL (=A+B+C+D)	**4,52,55,349.30**
Source: Consultant		

10.2.6. O&M Expenditure for Processing and Disposal for Zone-III

The following is the summary of Annual O& M Expenditure for Processing and Disposal. The detail of estimates is given in the annexure.

Table 106: Annual O&M Expenditure for Processing and Disposal		
No.	**Details**	**Amount (in Rs.)**
1	Manpower Cost	53,43,235.00
2	Fuel Cost for Operation of Motorised Vehicle& Electricity at Processing and Disposal Site	4,25,000.00
3	Repair & Maintenance for Vehicles and Equipments	3,93,143.00
	TOTAL	**61,61,378.00**
Source: Consultant		

Table 107: Total Project Cost Summary

S. No.	Zone No.	Land details	Land Available (in Hectare)	Land Required (in Hectare)	Population Covered (In %)	DPR Cost (In Crore Rs.)
1	1	Sukhli Depot	9.35	4.79	56.53	25.37
2	2	Akoli Bypass	2.83	0.95	30.1	7.07
3	3	Badnera Pundeshwar	1.15	0.54	13.37	4.52
Total				**6.28**	**100.0**	**36.97**
5	IEC(For A- Class Municipal Council = 1 Cr. or 5% of DPR cost; whichever is less.)					**1.00**
6	Total Project Cost					37.97

10.3. Total Revenues Generated

The following is the proposed revenue model which includes proposed tariff charges, revenue from sale of products, revenue from user charges for meeting the O&M Requirements. The O& M expenditure includes all aspects of MSWM.

Table 108: Proposed Tariff Charges, Income Generation etc (Including Street Sweeping)

S.No.	Description of Item	Quantity	Unit
1	Expenditure on C & T	303926000.00	Rs./ Year
2	Expenditure on P & D	26317180.00	Rs./ Year
3	Total Expenditure	330243180.00	Rs./ Year
	Say	3302.43	Lacs Rs. /Year
4	Compost generation	15%	of organic waste
5	Available organic waste	130.26	TPD
6	Total Compost	19.54	TPD
		19540	kg/day
7	Avg. cost of compost	3.00	Rs./kg
8	Revenue generate from compost	58620.00	Rs./day
		21396300.00	Rs./annum
9	Recovery from MRF	91170	kg/day
10	Avg cost of material	5.75	Rs./kg
11	Revenue generate from MRF	524227.5	Rs./day
		191343038	Rs./annum
12	Total Revenue generation	212739338	Rs./annum
	Say	2127.39	Lacs Rs. /Year
13	No. of house hold	154196	no.
14	No. of commercial shops	10176	no.
15	Rate per commercial shops	**90**	Rs./month
16	Revenue generation from Commercial shops	915840	Rs./ month
		10990080	Rs./year
		109.9	Lacs Rs. /Year
17	Net expenditure	1065.14	Lacs Rs. /Year
18	Per house cost	690.77	Rs./year
		57.56	Rs./month
	Say	**58.00**	**Rs./Month**

Source: Proposed by the Consultant

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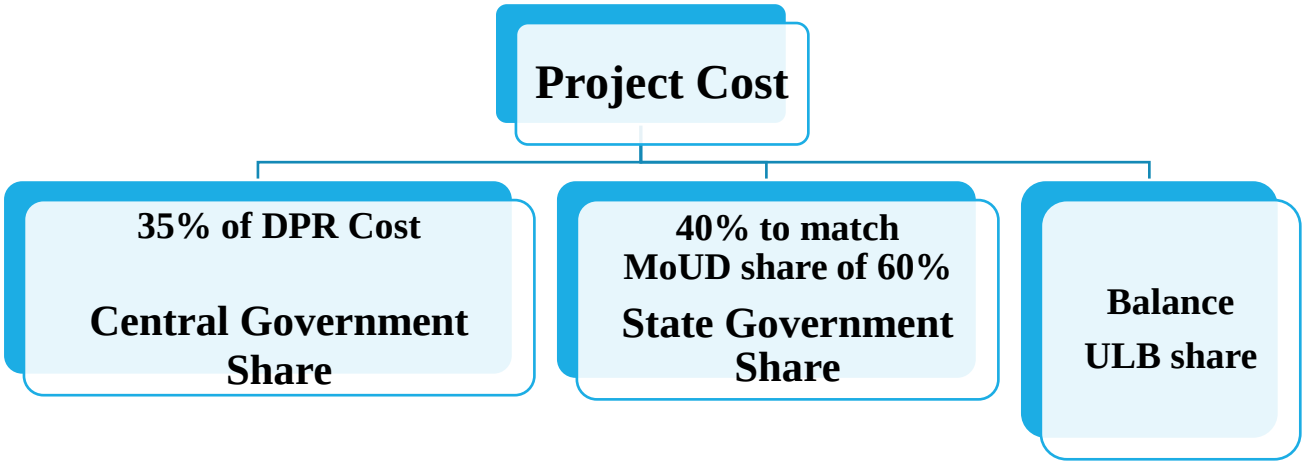
11. Financial Model

11.1. Project Financial Structuring

The project is proposed to be implemented by ULB. The financing structure has been designed in such a fashion that the project financing risk and the cost overloading risk are mitigated. The following is the overall financial structuring proposed for the project.



11.2. Finance for Capital Expenditure

As per the table shown below, the 58.33% of the project cost will be covered from grant from Central Government (35%) and State Government (23.33%). The remainder has to be brought in by ULB.

Table 109: Overall Funding Structure

Stakeholder	INR Lakhs	%age Share
Capital Grants from Central Government	**1329.15**	**35%**
Capital Grants from State Government	**885.98**	**23.33 %**
ULB Share	**1582.45**	**41.67 %**
Total Project Cost	**3797.58**	**100%**

Source: Consultant

11.3. Finance for Operation & Management

SWM services are highly labour intensive. On account of increased wage structure of the Government and Municipal employees, this service is becoming more and more expensive. Besides, the efficiency of the labour force employed in the urban local bodies is far from satisfactory. High wage structure and Inefficiency of the work force results into steep rise in the cost of service and yet the people at large are not satisfied (as visible from the result of socio-economic survey) with the level of service being provided by ULB.

Private Sector Participation or Public Private Partnerships may be considered by ULB for meeting the O&M Expense. This will check growth in the establishment costs, bring in economy in expenditure and introduce an element of healthy competition between the private sector and the public sector in solid waste management services. There should be a right mix of private sector and public sector participation to ensure that there is no exploitation of labour as well as of the management.

The following PPP Strategies are proposed for O&M Recovery of MSWM.

(A)Separate agency for bulk waste producers on cost recovery basis

- The appointment of an agency for the collection of waste from bulk producers is an ideal way to tackle this type of waste. Municipal Bodies can award the rights for collection and transportation of debris / bulk waste like waste from hotels/restaurants etc to contractors who can be allowed to charge the generators at a predetermined rate. The contractors can also be allowed to "sell" such debris to other construction sites that require land filling or process the biodegradable waste for producing compost, as the case may be.
- Various models can be tried for fixing the basis of payment. However, payment on the basis of actual waste generated may be avoided till such time a very dependable system is in place to ensure that no waste finds its way into the normal municipal stream. Payments on the basis of number of trips in case of debris / number of rooms for hotels/ area etc are simpler to enforce and do not provide any incentive for manipulation.
- It would be also advisable to involve the association of the affected generator groups in the process of appointment of an agency, fixing the rates and in monitoring its performance.

(B) Priority to comprehensive contract

- Such contracts should be comprehensive in nature. They should ideally require the contractor to collect waste from each household, transport the same to the processing site, and sweep the roads as well as keep clean the gutters, nallahs, and other public places in a given locality. The contractor can also be given the right of enforcement of rules.
- The contractor, in such cases, ensures that households hand over waste to his staff directly. When this is done he is required to deploy less staff to clean roads and public places.
- In case an agency is responsible only for door-to-door collection, but not its transportation, no incentive can be provided for reduction / segregation of waste. It can dump whatever it wants into the community bins.
- A comprehensive contract has another major advantage. It allows the community bins to be eliminated.
- This also reduces the managerial burden on the municipal body considerably. Instead of handling a plethora of small contracts, the local body has to monitor only one contract. Also this monitoring is directly related to the final objective with which the contracts were given- i.e. to keep the city clean.

(c) Contracts to be Performance Oriented. ***Pay for outputs and not for inputs***

- With a view to make sure that the system works efficiently, it is essential that contracts be performance oriented, or be output based. For example, it could be on the basis of households covered, or in case of comprehensive contract, on keeping a given part of the city free of garbage.
- The payment to the operator should not be on weight basis. Here the private operator has no incentive to reduce the waste through segregation. In fact it would provide incentive to discourage segregation, and even bring debris, etc to the processing point to get more payment. The ideal system would be to pay a fixed amount for a certain specified job (of clearing all the garbage from a given locality and house to house collection, with or without road sweeping,). However, payment on weight basis can be adopted when differential payments for mixed and segregated waste have been prescribed. Here the operator is allowed to bring unlimited quantity of segregated waste, but only a limited quantity of mixed waste to the processing site.
- Payment on house hold basis seems to be an acceptable method, especially when the operator is allowed collecting a part of the charge directly from households. This is ideal for self help groups, etc where only house to house collection is done. The payments could be linked to the fulfilment of the overall objective of maintaining cleanliness in a given area. This is ideal for comprehensive contracts. The reporting on parameters of quality of services may been trusted to local citizens groups. This would also keep a tab on performance of the operators.

The Possible PSP Option for Recovery of O&M Model are listed below

(A) Door to Door Collection

Model 1 - by Privatization

Tenders could be invited by the local body for private sector participation ~ doorstep collection of waste. The private entrepreneur getting contract should be allowed to select his own team of workers; give them containerized tricycles or handcarts or other vehicles, tools and equipments necessary for door step collection of waste. He may allot 200 to 300 houses, or adequate no. of shops, hotels, restaurants, etc., depending on the distances to be travelled and garbage/waste to be collected and manageable for day to day collection of waste from such premises. He may collect the user charge as per the rates fixed by the local body per unit per month for door step collection of waste in consultation with officials of ULB. He should have his own supervisors to ensure that door to door collection service is given efficiently and ULB officials should just over see by occasional inspection to see that services are adequately being provided in the given areas through private sector and no overcharging is done. The persons, engaged by the private sector for door step collection should be allowed to take away recyclable material and also be allowed to dispose of other waste into the municipal system/municipal bins as may be prescribed by the ULB. The ULB employees should provide all possible legal and administrative help to the private entrepreneur for making the activity successful. Mass awareness programme and publicity through Media should be regularly carried out by the ULB. The ULB should provide financial support to the private entrepreneur, as in beginning many people may be reluctant in giving user charges.

Model - 2: by involving informal sector

In compliance with MSW (Management and Handling) Rules, aim is to reuse, recycle and reduce waste so that minimal amount goes to landfill site .The objective of any SWM project should be to provide overall benefits to the society by creating better and healthy environment. There are various stakeholders from informal sector, involved in solid waste management including “Rag-pickers” and “Domestic sweepers (waste-lifters)”. These people work under hazardous conditions without any protective gears. Under the DTDC project, these informal sector persons should be brought under the umbrella of formal “Waste hierarchy” providing them suitable honorarium, training and health related services, thereby improving their social, health and financial status. The management facility should also create additional employment opportunities at multiple levels for these people. This should also result in lowered crime rate and better educational opportunities to their families. In addition of sharing the responsibilities, the required two types of costs may be shared with ULB.
a) Soft costs towards the salary of sanitary workers, their uniforms, protective gears such as hand-gloves, etc, maintenance cost of rickshaws/equipment’s, costs towards supervising and monitoring could be borne by facilitator and
b) Hard cost: Municipality may provide cost towards the containerized rickshaws/other tools. In addition, ULB also ensures to provide and daily lifting of roadside containers at the designated storage depots.

The following could be the details of the model:

- An area of about 2000 households should be selected based on discussion with the ULB and survey of the city.
- Organization of separate awareness programme to the community, sanitary workers & ULB workers highlighting the need and importance of the activity.
- Selecting suitable workers from the rag-picker community available in that area/city and imparting training to them.
- Initiating the door-to-door collection activity.
- Requesting ULB to inform public for their participation, eligible collection fee and also implications of non-cooperation (issue of defaulter notice, etc)
- Differential collection fee based on the income levels (LIG, MIG, HIG) for households and higher fee for commercial establishments such as shops, restaurants, hotels, market areas.
- Continuous supervision and monitoring to ensure the progress.

- The model is to attain self-sufficiency – to meet its operational expenses- in a span of 6-8 months and subsequently to be expanded into other areas of the city. Upon successful demonstration in selected area of ULB, it is easier to expand in subsequent areas and cover entire town.

Formation of a society, at an appropriate time, involving Residential Welfare Associations, women groups/associations, elected representative of the local body, Administrative head of local body and other known personalities of the town and the society to take over the monitoring/ supervision of MSW door-to-door collection activity of the town.

(B) Street Sweeping

ULB face stiff resistance to private street sweepers from staff members employed under public regulations; therefore, street-sweeping contracts involving private enterprises are very few. Generally such contracts should not be awarded unless the city has large unserved areas and inadequate staff members to cover the unserved areas, because this type of contract could be stiffly resisted by existing laborers, who are under the perceived threat of losing their jobs. However, such resistance can be overcome by ensuring the labor force of their security of service. Here the principal advantage to the municipal authority is to get labor at a much lower rate than the municipal rates. Well-prepared contracts can lead to better quality of services at a reasonable cost. The norms of work could be prescribed and the minimum wages could been sured in such contracts to prevent exploitation of labor by the private operators.

(C)Treatment& Disposal

Contracts related to the construction of compost plants, waste-to-energy plants, and engineered landfills require relatively large investments and skilled labor. A precondition for developing a contract is that the location for construction and operation must fulfill technical and legal requirements. Furthermore, the necessary environmental clearances from the State Pollution Control Board should be obtained.

Prospective areas for privatization could be any/many of following:

- Door to door collection of domestic waste/ collection and transportation up to processing plant or to sanitary land fill site.
- Door to door collection of commercial waste/ collection and transportation up to to processing plant or to sanitary land fill site.
- Collection, processing and disposal of hotel and restaurant waste on cost recovery basis or on (Built Own Operate) BOO basis.
- Door to door collection of hospital waste, processing and disposal on BOO basis.
- Collection and disposal of construction waste on cost recovery basis.
- Setting up, operation and maintenance of waste treatment and/ or disposal facility on tipping fee basis or on BOO basis.
- Supplying vehicles on rent.
- Supplying vehicles on lease along with repairs and maintenance of vehicles at a private garage.
- Transportation of waste on contractual basis, etc.

****End of Part 2****

ANNEXURE 1: POPULATION PROJECTIONS

Name of ULB: AMRAVATI | Name of District: AMRAVATI

EXISTING DETAILS OF POPULATION

YEAR	Existing Average Growth Rate	Population	Average Increase	Incremental Increase	Decadel Growth Rate	Percentage Increase
1971	-	193800				
1981	3.49%	261404	67604		0.30	0.35
1991	6.13%	421576	160172	92568	0.49	0.61
2001	3.03%	549510	127934	-32238	0.27	0.30
2011	1.78%	647057	97547	-30387	0.16	0.18
			453257	29943	1.23	**0.01151**
Value of 'N'		5	4	3	4	**4**
Average			113314 (Mean) **X**	9981 (Inc. mean) **Y**	0.31 (Dec. rate) r_d	0.33 (Geo. rate) r_g (Negative Excluded)
Reference Population P_1		**647057**				

METHODS USED FOR POPULATION PROJECTIONS

1. Arithmetical Increase Method $P_n = P_1 + nX$
2. Incremental Increase Method $P_n = P_1 + nX + n(n+1)Y/2$
3. Decadal Growth Method $P_n = P_1(1+ r_d /100)^n$
4. Geometrical Growth Method $P_n = P_1(1+ r_g /100)^n$

Where

X is a airthmetical mean

Y is a incremental increase mean

r_d is a decadal average growth ratio

r_g is a geometrical average growth ratio

P_1 is a reference population

n is a number of decade from reference year

N is a no. of decades whose data has been taken in calculation

1. Airthmetical method projects population between Incremental and Decadel/ Geometrical Growth Rate Method.
2. Geometrical or decadel growth method may give the higher side of the Population forecast in the coming thirty to fifty years.
3. Incremental increase method give the Lower side of the Population forecast in the coming thirty to fifty years.
4. Adopted Population Projections: Average of Population Projected by Airthmetical Increase Method & Incremental Increase Method as per guideline provided by Maharashtra Jeevan Pradhikarna, Amravati

Household (2011):- 1,36,796 **Household Size:- 4.73**

SUMMARY OF PROJECTED POPULATION

Summary of Design Population forecast by adopting Average of Airthmetical Increase Method & Incremental Increase Method

YEAR	Population Projection by Airthmetical Increase Method (A)	Population Projection by Incremental Increase Method (B)	Adoped Population Projection [Average of A& B] (C)	Projected Floating Population (D)	ADOPTED POPULATION FOR DESIGN (E=C+D)	Average Growth Rate (in %)
2018	726377	732316	729347	0	**729347**	-
2023	783034	796209	789622	0	**789622**	1.65%
2028	839691	862597	851144	0	**851144**	1.56%
2033	896348	931481	913915	0	**913915**	1.47%
2038	953005	1002860	977933	0	**977933**	1.40%
2043	1009663	1076735	1043199	0	**1043199**	1.33%
2048	1066320	1153105	1109713	0	**1109713**	1.28%

CALCULATION OF PROJECTED POPULATION BY DIFFERENT METHODS

Year	Value of 'n'	Airthmetical Increase Method	Incremental Increase Method	Decadel Growth Method	Geometrical Method	Floating Population Per Year
2018	**0.7**	726377	732316	780289	789012	0
2019	**0.8**	737708	744894	801441	811689	0
2020	**0.9**	749040	757574	823166	835018	0
2021	**1.0**	760371	770352	845480	859017	0
2022	**1.1**	771703	783231	868400	883705	0
2023	**1.2**	783034	796209	891940	909103	0
2024	**1.3**	794366	809288	916119	935232	0
2025	**1.4**	805697	822465	940953	962111	0
2026	**1.5**	817028	835742	966460	989762	0
2027	**1.6**	828360	849120	992659	1018209	0
2028	**1.7**	839691	862597	1019568	1047473	0
2029	**1.8**	851023	876175	1047206	1077578	0
2030	**1.9**	862354	889852	1075594	1108548	0
2031	**2.0**	873686	903629	1104751	1140409	0
2032	**2.1**	885017	917505	1134699	1173185	0
2033	**2.2**	896348	931481	1165458	1206903	0
2034	**2.3**	907680	945558	1197051	1241590	0
2035	**2.4**	919011	959733	1229501	1277274	0
2036	**2.5**	930343	974010	1262830	1313984	0
2037	**2.6**	941674	988385	1297063	1351748	0
2038	**2.7**	953005	1002860	1332224	1390598	0
2039	**2.8**	964337	1017436	1368338	1430565	0
2040	**2.9**	975668	1032111	1405431	1471681	0
2041	**3.0**	987000	1046886	1443529	1513978	0
2042	**3.1**	998331	1061760	1482660	1557490	0
2043	**3.2**	1009663	1076735	1522852	1602254	0
2044	**3.3**	1020994	1091809	1564133	1648303	0
2045	**3.4**	1032325	1106983	1606534	1695677	0
2046	**3.5**	1043657	1122257	1650084	1744411	0
2047	**3.6**	1054988	1137631	1694814	1794547	0
2048	**3.7**	1066320	1153105	1740757	1846123	0

Source: Analysis by the consultant

ANNEXURE 2: Calculation of Per Capita Waste Generation of Municipal Solid Waste Per Day

Name of District	AMRAVATI
Name of ULB	AMRAVATI

Total Samples Collected*	Samples Collected from SLUM/LIG	Samples Collected from MIG/HIG	Samples Collected from Commercial & Institutions	No. of Days of Sample	Population (2011)	Household (2011)	HH Size (2011)
720	360	200	160	7	647057	1,36,796	5

DOCUMENTATIONS

Sample Code	No. of Sample	Family Size in Number	Total Day 1 Weight in Grams	Total Day 2 Weight in Grams	Total Day 3 Weight in Grams	Total Day 4 Weight in Grams	Total Day 5 Weight in Grams	Total Day 6 Weight in Grams	Total Day 7 Weight in Grams	Total of Days Weight in Grams
SL-01	7	35	678	712	745	712	723	726	720	5015
SL-02	7	35	645	738	771	718	743	744	735	5094
SL-03	7	35	612	705	798	705	736	746	729	5031
SL-04	7	35	672	732	825	743	766	778	762	5277
SL-05	7	35	672	758	851	760	790	800	784	5415
SL-06	7	35	678	785	878	780	814	824	806	5566
SL-07	7	35	698	718	653	690	687	677	684	4807
LIG-01	7	35	920	965	1010	965	980	985	977	6804
LIG-02	7	35	875	1001	1046	974	1007	1009	997	6911
LIG-03	7	35	830	956	1083	956	998	1012	989	6825
LIG-04	7	35	911	992	1119	1007	1039	1055	1034	7158
LIG-05	7	35	911	1028	1155	1031	1072	1086	1063	7346
LIG-06	7	35	1126	1297	1469	1297	1354	1373	1094	9011
LIG-07	7	35	947	974	886	936	932	918	929	6522
SUB TOTAL	**98**	**490**	**11176**	**12362**	**13288**	**12275**	**12642**	**12735**	**12303**	**86782**
MIG-01	7	35	1273	1336	1398	1336	1357	1363	1352	9415
MIG-02	7	35	1211	1386	1448	1348	1394	1397	1380	9563
MIG-03	7	35	1211	1386	1448	1348	1394	1397	1380	9563
MIG-04	7	35	1261	1373	1548	1394	1438	1460	1431	9905
MIG-05	7	35	1261	1423	1598	1427	1483	1503	1471	10165
MIG-06	7	35	1558	1795	2032	1795	1874	1900	1513	12468
MIG-07	7	35	1311	1348	1226	1295	1290	1270	1285	9024
HIG-01	7	35	1850	1941	2031	1941	1971	1981	1964	13679
HIG-02	7	35	1759	2013	2104	1959	2025	2029	2004	13894
HIG-03	7	35	1759	2013	2104	1959	2025	2029	2004	13894
HIG-04	7	35	1832	1995	2249	2025	2090	2121	2079	14391
HIG-05	7	35	1832	2068	2322	2074	2154	2183	2137	14769
HIG-06	7	35	2264	2608	2953	2608	2723	2761	2199	18115
HIG-07	7	35	1904	1959	1781	1881	1874	1845	1867	13112
SUB TOTAL	**98**	**490**	**22286**	**24643**	**26241**	**24390**	**25091**	**25241**	**24066**	**171958**

SUMMARY OF RESULTS

DETAILS	RESIDENTIAL	COMMERCIAL (30 % of residential waste)	STREET WASTE (20 % of residential waste)	TOTAL
TOTAL WASTE COLLECTED (IN GRAMS)	258740	77622	51748	388110
WASTE GENERATION PER CAPITA PER DAY (IN GRAMS)	264	79	53	396

Prepared by:- MARS Enviro Research & Engineering Services Pvt Ltd (NABL accredited Laboratory for Testing)

ANNEXURE 3: Waste Characterisation Report

Name of ULB	670
AMRAVATI	

No. of Days of Sample Collection	Total No. of Samples Collected	Population (2011)	Household (2011)	HH Size (2011)	Name of District
7	800	647057	1,36,796	5	AMRAVATI

RESULTS OF AVERAGE COMPOSITION OF MSW

		Total Number of Samples Taken		45	25	20	X	10
No	**Group**	**Parameter**	**Unit**	**Slum/ LIG**	**MIG/ HIG**	**Commercial**	**Average at Source**	**At Dumpsite**
1	Biodegradable	Green Waste and Kitchen Waste	%	49.40	54.15	30.40	**44.65**	**27.08**
2	Recyclable	Plastic, Polythene, Tetra Packs Etc	%	7.76	9.74	9.50	**9.00**	**6.54**
3		Paper and Card Board	%	6.18	8.55	14.25	**9.66**	**3.61**
4		Metal	%	0.08	0.10	0.19	**0.12**	**0.23**
5		Glass	%	0.13	0.38	0.57	**0.36**	**0.32**
6	Non Biodegradable	Textiles	%	2.66	6.18	7.13	**5.32**	**1.81**
7		Horticulture Waste & Wooden Piece	%	2.76	4.75	12.35	**6.62**	**12.64**
8		Leather, Rubber Etc	%	0.19	0.14	0.19	**0.17**	**0.14**
9	Inert	Inert (Silt, Debris, Construction and Demolition Waste Ect)	%	30.85	16.01	25.43	**24.10**	**47.66**
		TOTAL	**%**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

OTHER RESULTS OF MSW IN SAMPLES

No	**Group**	**Parameter**	**Unit**	**Slum/ LIG**	**MIG/ HIG**	**Commercial**	**Average at Source**	**At Dumpsite**
1	Physical	Bulk Density	KG/ CuM	428	451	456	**445**	**487**
2		Calorific Value	Kcal/Kg	1140	950	1710	**1267**	**722**
3		Moisture	%	28.50	33.25	23.75	**28.50**	**18.05**
4	Chemical	PH		7.13	7.60	8.08	**7.60**	**5.87**
5		Ash Content	%	20.90	22.80	25.65	**23.12**	**55.05**
6		Total Volatile Content (LoI)	%	20.43	21.00	16.91	**19.44**	**31.59**
7		Total Organic Carbon (ToC)	%	18.53	16.15	20.05	**18.24**	**22.56**
8		Total Nitrogen	mh/kg	1.02	0.76	1.68	**1.15**	**1.34**
9		Total Phosphates as P2O5	mh/kg	0.67	0.57	0.49	**0.58**	**3.52**
10		Total Potassium as K2O	mh/kg	3.42	3.61	2.85	**3.29**	**1.71**
11		C/N Ratio		20.90	16.15	11.40	**16.15**	**15.34**

Testing Done By

MARS Enviro Research & Engineering Services Pvt Ltd (NABL accredited Laboratory for Testing)

Detailed Project Report (DPR) For Solid Waste Management (Under Swachh Maharashtra Mission)		
	NAME OF ULB:-	**AMRAVATI**
	NAME OF DISTRICT:-	**AMRAVATI**
	POPULATION (CENSUS 2011):-	**6,47,057**
	CLASS OF M. Corp.:-	D

ABSTRACT OF COST

NO.	DESCRIPTION OF ITEM	TOTAL AMOUNT (IN RS.)
PART-I	**Waste Collection & Transportation**	
1	Cost Estimates of Equipments and Vehicles for Primary Waste Storage, Primary Waste C&T Door to Door Collection (DTDC), Street Sweeping, Secondary Waste Storage & Secondary Waste Transportation System	0.00
	Sub Total (PART I)	**0.00**
PART-II	**Waste Processing & Disposal**	
A	**Waste Processing**	
2	Cost Estimates for Civil Works of Dumping Yard	48,49,003.00
3	Cost Estimates for Civil Works of Materials Recovery Facility (MRF) Shed	1,28,45,588.00
4	Cost Estimates for Civil Works of Windrow Platform	6,54,90,733.00
5	Cost Estimates for Civil Works of Bio Gas Plant	2,55,90,000.00
	Sub Total (A)	**10,87,75,324.00**
B	**Waste Disposal**	
6	Cost Estimates for Civil Works of Scientific Landfill Site	5,00,76,643.00
	Sub Total (B)	**5,00,76,643.00**
C	**Site Development**	
7	Cost Estimates for Civil Works of Security & Operating Room	11,62,287.00
8	Cost Estimates for Civil Works of Entrance Gate	0.00
9	Cost Estimates for Civil Works of Toilets	7,54,119.90
10	Cost Estimates for Civil Works of Drainage Works	22,67,770.00
11	Cost Estimates for Civil Works of Fencing Works	0.00
12	Cost Estimates for Civil Works of Pavement Works	25,64,327.00
13	Cost Estimates for Biomining of Old Dumped Waste	5,54,16,732.00
14	Cost Estimates For Green Belt Development	8,56,153.00
15	Cost Estimates For Building Block	6,81,696.00
16	Cost Estimate For Fire Safety Works	1,65,072.00
17	Cost Estimates For Water Supply Works	15,06,255.00
18	Electricity Arrangement, Culture & Safety Equipments	29,63,064.00
19	GST for Civil work @ 12 % (Item no. 2+3+4+5+6+7+8+9+10+11+12+14+15+17)	2,02,37,349.00
	Sub Total (C)	**8,85,74,824.90**
D	**Plant & Machinery, Vehicle and Equipments**	
20	Cost Estimates for Plant & Machinery, Vehicle & Equipments	12,23,21,759.00
	Sub Total (D)	**12,23,21,759.00**
	Sub Total (PART II=A+B+C+D)	**36,97,48,550.90**
	Total Capital Cost (PART I+PART II)	**36,97,48,550.90**
PART-III	**Awareness and IEC**	
21	For A- Class Municipal Council = 1 Cr. or 5% of DPR cost; whichever is less.	1,00,00,000.00
22	Construction Material Testing Charges	9,300.00
	Sub Total (III)	**1,00,09,300.00**
	GRAND TOTAL (I+II+III)	**37,97,57,850.90**
	GRAND TOTAL (In LACS)	**3,797.58**

For-MaRS Planning & Engineering Services Pvt. Ltd.
(Technical Consultant)
Ahmedabad, Gujarat

Detailed Project Report (DPR) For Solid Waste Management (Under Swachh Maharashtra Mission)	NAME OF ULB:-	**AMRAVATI**
	NAME OF DISTRICT:-	**AMRAVATI**
	POPULATION (CENSUS 2011):-	**6,47,057**
	CLASS OF M. Corp.:-	D

ABSTRACT OF COST

NO.	DESCRIPTION OF ITEM	ZONE-I, (IN RS.)	ZONE-II, (IN RS.)	ZONE-III, (IN RS.)	TOTAL AMOUNT (IN RS.)
PART-I	**Waste Collection & Transportation**				
1	Cost Estimates of Equipments and Vehicles for Primary Waste Storage, Primary Waste C&T Door to Door Collection (DTDC), Street Sweeping, Secondary Waste Storage & Secondary Waste Transportation System	0.00	0.00	0.00	0.00
	Sub Total (PART I)	**0.00**	**0.00**	**0.00**	**0.00**
PART-II	**Waste Processing & Disposal**				
A	**Waste Processing**				
2	Cost Estimates for Civil Works of Dumping Yard	24,59,892.00	15,17,996.00	8,71,115.00	48,49,003.00
3	Cost Estimates for Civil Works of Materials Recovery Facility (MRF) Shed	51,93,219.00	42,65,938.00	33,86,431.00	1,28,45,588.00
4	Cost Estimates for Civil Works of Windrow Platform	3,30,91,278.00	2,11,67,800.00	1,12,31,655.00	6,54,90,733.00
5	Cost Estimates for Civil Works of Bio Gas Plant	2,55,90,000.00	0.00	0.00	2,55,90,000.00
	Sub Total (A)	**6,63,34,389.00**	**2,69,51,734.00**	**1,54,89,201.00**	**10,87,75,324.00**
B	**Waste Disposal**				
6	Cost Estimates for Civil Works of Scientific Landfill Site	5,00,76,643.00	0.00	0.00	5,00,76,643.00
	Sub Total (B)	**5,00,76,643.00**	**0.00**	**0.00**	**5,00,76,643.00**
C	**Site Development**				
7	Cost Estimates for Civil Works of Security & Operating Room	3,87,429.00	3,87,429.00	3,87,429.00	11,62,287.00
8	Cost Estimates for Civil Works of Entrance Gate	0.00	0.00	0.00	0.00
9	Cost Estimates for Civil Works of Toilets	2,51,373.30	2,51,373.30	2,51,373.30	7,54,119.90
10	Cost Estimates for Civil Works of Drainage Works	10,87,322.00	5,90,224.00	5,90,224.00	22,67,770.00
11	Cost Estimates for Civil Works of Fencing Works	0.00	0.00	0.00	0.00
12	Cost Estimates for Civil Works of Pavement Works	12,81,997.00	6,41,165.00	6,41,165.00	25,64,327.00
13	Cost Estimates for Biomining of Old Dumped Waste	5,54,16,732.00	0.00	0.00	5,54,16,732.00
14	Cost Estimates For Green Belt Development	3,21,057.00	2,85,384.00	2,49,712.00	8,56,153.00
15	Cost Estimates For Building Block	2,27,232.00	2,27,232.00	2,27,232.00	6,81,696.00
16	Cost Estimate For Fire Safety Works	78,192.00	52,128.00	34,752.00	1,65,072.00
17	Cost Estimates For Water Supply Works	5,02,085.00	5,02,085.00	5,02,085.00	15,06,255.00
18	Electricity Arrangement, Culture & Safety Equipments	18,72,192.00	6,64,932.00	4,25,940.00	29,63,064.00
19	GST for Civil work @ 12 % (Item no. 2+3+4+5+6+7+8+9+10+11+12+14+15+17)	1,44,56,343.00	35,80,395.00	22,00,611.00	2,02,37,349.00
	Sub Total (C)	**7,58,81,954.30**	**71,82,347.30**	**55,10,523.30**	**8,85,74,824.90**
D	**Plant & Machinery, Vehicle and Equipments**				
20	Cost Estimates for Plant & Machinery, Vehicle & Equipments	6,14,09,609.00	3,66,56,525.00	2,42,55,625.00	12,23,21,759.00
	Sub Total (D)	**6,14,09,609.00**	**3,66,56,525.00**	**2,42,55,625.00**	**12,23,21,759.00**
	Sub Total (PART II=A+B+C+D)	**25,37,02,595.30**	**7,07,90,606.30**	**4,52,55,349.30**	**36,97,48,550.90**
	Total Capital Cost (PART I+PART II)	**25,37,02,595.30**	**7,07,90,606.30**	**4,52,55,349.30**	**36,97,48,550.90**
PART-III	**Awareness and IEC**				
21	For A- Class Municipal Council = 1 Cr. or 5% of DPR cost; whichever is less.				1,00,00,000.00
22	Construction Material Testing Charges				9,300.00
				Sub Total (III)	**1,00,09,300.00**
				GRAND TOTAL (I+II+III)	**37,97,57,850.90**
				GRAND TOTAL (In LACS)	**3,797.58**

For-MaRS Planning & Engineering Services Pvt. Ltd.
(Technical Consultant)
Ahmedabad, Gujarat

-TRUE COPY-

BEFORE THE NATIONAL GREEN TRIBUNAL,

WESTERN ZONE BENCH PUNE

ORIGINAL APPLICATION NO. 60 OF 2019 (WZ)

Ganesh Dadarao Anasane … Applicant

Versus.

Amravati Municipal Corporation & Ors. … Respondents

COMPLIANCE AFFIDAVIT ON BEHALF OF THE RESPONDENT NO. 1 IN TERMS OF THE ORDER DATED 22.09.2020 PASSED BY THIS HON'BLE TRIBUNAL

PAPER BOOK

(FOR INDEX KINDLY SEE INSIDE)

VOL-II (Pg. 673 to 919)

VOL-III (Pg. 920 to 1145)

BEFORE THE NATIONAL GREEN TRIBUNAL,

WESTERN ZONE BENCH PUNE

ORIGINAL APPLICATION NO. 60 OF 2019 (WZ)

Ganesh Dadarao Anasane … Applicant

Versus.

Amravati Municipal Corporation & Ors. … Respondents

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Date :09.06.2021

ANNEXURE A-5

Extract of Resolution passed in the General Meeting Dated 19.12.2017

(Administrative Subject)

Subject No. 71:- Regarding approval to solid waste management to DPR detail

Resolution No. 71:- As per above subject it is necessary to implement of solid waste management project in city under Municipal solid waste (management and handling) rules 2000 and 2016.

For this by letter No.---------- dated 07.06.2017 of Maharashtra urban Development mission Directorate, Swacch Maharashtra mission (urban) appointed MaRS Planning & Engineering Services pvt.ltd.

By taking into consideration the hurdles for establishment of solid waste management project in a city the DPR is prepared by MaRS Planning & Engineering Services Pvt.Ltd. in order to prepared to DPR meeting was called in presence of Hon'ble mayor and others members on dated 15.11.2017, 08.09.2017 and 23.11.2017 as per discussion in said meeting solid waste management is implemented by decentralized method at following places and expected expenditure is as followings.

Sr. No.	Land of Project proposal	---	Description of Land	Capacity of Project	DPR Cost (in CroreRs)
1	Sukli compost Depot	Survey no. 155 And 156	9.35 HR	200 MTP	Rs.17.58 Cr.

2	AkoliBaipass	MaujaBadnera Survey No.295	2.83 HR	100 MTP	Rs.7.13 Cr.
3	Badnera (kondeshwarMargMadhavati Near Naka)		1.15 HR	50 MTP	Rs.5.41 Cr.
				Total	Rs. 30.12 Cr.
				IEC /	Rs. 01.00 Cr.
				Processing on legacy waste dumped at sukli compost depot	Rs.6.97 Cr.
				Total-DPR Cost	Rs.38.09 Cr.

With the reference to solid waste management DPR, detailed information is annexed and accordingly fund shall received which also included share of corporation.

Sr.No.	Description	Cost (in CroreRs.)
1	Total DPR of Cost	Rs.38.09.Cr.
2	MoUD Share (35% of total DPR Cost)	Rs.13.33.Cr.
3	GoM share (40% of match MoUD share)	Rs. 08.88 Cr.
4	ULB share (14 Finance commission grant)	Rs. 15.87 Cr.

Solid waste management DPR have to send to government for final approval. Above said administrative proposal is discussed in detailed in a

meeting and the end of discussions, this meeting approves said administrative proposal and passed resolution unanimously.

The resolution is passed unanimously

Sd/- Sd/-
Secretary chairman or mayor
Amravati Municipal Corporation Amravati Municipal Corporation

-TRUE COPY-

ANNEXURE A-6

Municipal Corporation, Amravati
Sanitation Department.
OWS/AMC/COMM/SD/781/1/2017.
Dtd. 21/12/2017.

To,

Principle Secretary
Urban Development Department,
Hutatma Rajguru Square, Madam Kama Road,
Mantralaya, Mumbai.

Subject : For approval of detail project report an solid waste management.

Reference: Approval wide resolution no. 71 of the general meeting dtd. 19/12/2017.

Respected Sir,

With reference to above cited subject to prepare detail project report as per solid waste management and handling rules 2000 and 2016 and according to letter No.RAS/SolidWaste/708/2017-18, dated 07/06/2017 of Maharashtra Urban Development Mission directorate and clean Maharashtra Mission (Urban), Mumbai has appointed MaRS planning and Engineering services Pvt. Ltd. That till today considering the hurdles in establishing solid waste management project in cities Mars Planning and Engineering

Services Pvt. Ltd has proposed detail objective project report in this respect.

That for preparing detail project report meetings was held with Hon'ble Mayor and other office bearers on dated 15/11/2017, dated 08/09/2017 and on dated 23/11/2017. Vide resolution no. 71 of general meeting dated 19/12/2017 approval was granted to the detail project report to urban solid waste management, the copy said resolution is enclosed herewith.

As per discussion of said meeting solid waste management project in going to be operated in decentralized method of following places and for the same expenditure is expected as under.

Sr. No.	Land use for Project		Area Of Land	Project Capacity	DPR Cost (In Crore Rs.)
1	Sukali Compost Depo	Survey No. 155 and 156	9.35 Hector	200 MTP	Rs. 17.58 Cr
2	Akoli Bypass	Badnera Survey No. 295	2.83 Hector	100MTP	7.13 Cr.
3	Badnera (Kondeshwar Road near central check post)		1.15 Hector	50MTP	5.41Cr.
				Total	Rs. 30.12 Cr.
				IEC/Information purpose	Rs.01.00 Cr.
				For process on old waste dumped at AMC Sukali Compost Depot	Rs. 6.97Cr
				Total DPR cost	Rs.38.09 Cr.

Detail information is enclosed herewith regarding detail project report of solid waste management and relation to detail project report amount is to be received in following manner in which the share of Municipal Corporation is also included.

Sr. No.	Particulars	Cost (In Crore Rs.)
1	Total DPR cost	Rs. 17.58 Cr
2	MoUD Share (35% of total DPR cost)	Rs. 13.33 Cr
3	GoM share (405 of match Moud Share)	Rs. 08.88 Cr
4	ULB Share (14thFinance Commission grant)	Rs. 15.87 Cr

Hence kindly grant final approval to the detail project report of solid waste management.

Enclosure: - As above

Commissioner

Municipal Corporation, Amravati.

Copy to:

Mission Director

Maharashtra Urban Development Mission Directorate, Clean Maharashtra Mission (Nagari), Mumbai for information.

-TRUE COPY-

ANNEXURE A-7

Government of Maharashtra
Maharashtra Urban Development Mission Directorate
Swachh Maharashtra Mission (U)

MUIDCL, Ground Floor, CR-2, Barrister Rajni Patel Road, Nariman Point, Mumbai 400 021.
Tel.: 022-66157390, Fax No.022-56157429, Emaildirector.smau@gmail.com

No. SMD/SMM(U)/SWM/268 /17-18 Date: - 12-02-2018

To,

Dr. M. Suresh Kumar,
Senior Principal Scientist,
CSIR-NEERI,
Nagpur

Subject: Swachh Maharashtra Mission
DPR submission for Technical Appraisal

Respected Sir,

Government of Maharashtra is implementing Swachh Bharat Mission - Urban (SBM - Urban) through Directorate of Swachh Maharashtra Mission. NEERI and Government of Maharashtra have signed shorandum of Understanding. And it will be our great pleasure to work with you in the same.

We are attaching the Solid Waste Management DPR of Latur, Nanded, Amaravati, Ulhasnagar for Appraisal. Payment will be done by respective Municipal Corporation and council.

We request you to appraise the DPRs technically as per the MoHUA guidelines and SWM Rule 2016 and send us the reports at the earliest.

Yours Sincerely,

Sd/-

(Dr. UdayTekale)
State Mission Director
Swachh Maharashtra Mission (Urban)

Copy for information and necessary action

1. Municipal Commissioner: Ulhasnagar, NandedWaghela, Latur, Amaravati

-TRUE COPY-

ANNEXURE A-8

Swachha Maharashtra Mission (Urban) To grant sanction to Bio-mining project for Solid Waste which is collected within cities and dump without any process.

MAHARASHTRA GOVERNMENT

URBAN DEVELOPMENT DEPARTMENT

Govt. Order No.CMM-2018/C.N.329/U.D.-34.

HutatmaRajguru Square, Madam Kama Road,

4th floor, Mantralaya, Mumbai

Dated 13 November 2018

Reference :-

1. Govt. Order, Urban Development Department No.CMM-2015/C.N.23/U.D.-34, dated 15.05.2015.
2. Letter No. SMD/SMMU/966/18-19, dated 19.09.2018 of State Mission Directorate, Clean Maharashtra Movement

INTRODUCTION:-

To give clean environment and better health to the people of urban areas and to provide toilets, Central Government has launched Swachha Bharat Mission for urban areas. That on the verge of Swachha Bharat Mission for urban areas of Central Government, the State Government had implemented as per Government Order started Swachha Maharashtra Mission for urban areas. Under this mission elimination of open defecation and make it clean under solid waste management project.

2. While granting administrative permission to the detail project report it was directed not to use funds for Bio-mining process under Swachha Maharashtra Mission (Urban) which was sanctioned for Bio-mining process under solid waste management project until framing of specific state level policy for the same.

3. Under Swachha Maharashtra Mission (Urban) till today administrative permission has been granted to detail project report of solid waste management for 245 cities. Said report contended to use Bio-mining process for scientific process on solid waste which is collected without any process in cities of the State.

4. A committee was formed under the Chairmanship of Commissioner / Director Municipal Administration as per Government Order dated 27.10.2017 and dated 17.11.2017 to study and to implement the biomining process for scientific process on solid waste which is collected without any process in cities of the State. As per recommendation of this committee permission has been granted to establish biomining pilot projects in selected cities. That considering the experiences of such pilot project Government is under consideration to grant permission to other cities of the states for conducting biomining process.

GOVERNMENT ORDER:-

Government of Maharashtra is granting permission for Bio-mining process for the cities mentioned in the Index A enclosed with this order as per solid waste management Rules 2016 and as per detail project report subject to terms and condition as follows.

(1) The rates for the biomining work are mentioned in detail project report of solid waste management for the related cities. Said rates are now modified and for taking modified technical permission from Water Supply & Sanitation

Department of Maharashtra it already informed to concern vide reference No. 2 letter. Hence it is necessary to take modified technical permission first.

(2) The draft tender for biomining work is prepared by State Mission Directorate hence related cities are directed to obtain the said draft of tender for biomining work from State Mission Directorate and make such necessary amendments and then publish the same. That under draft tender the installments of bills payable to contractor are mentioned and installments are associated with the places which are recovered after biomining process and hence related cities are not permitted to amend the same.

(3) After considering the scope of biomining work as contemplated in detail project report it is the local civic body who is responsible to repossess the 90% of land from the land where old west is dump.

(4) The related local civic body/appointed agency will be responsible for the proper disposal of the production and the remaining west after biomining process.

(5) If after biomining process the local civic body failed to repossess the estimated waste filling land the related officers and employees will be held responsible for the same.

5. Said Government order is available on website of Maharashtra Government www.maharashtra.gov.in. The code of the said order is 201811131720206325. This order has pass by digital signature.

Under the name and by order of Hon'ble Governor of Maharashtra.

Sd/
Kailas. M. Badhan
Dy. Secretary
Maharashtra Government

Copy to:-

1. Secretary to Hon'ble Governor, Malbar Hill, Mumbai.
2. Principal Secretary of Hon'ble Chief Minister, Mumbai.
3. Personal Secretary to the State Minister Urban Development Department.
4. Chief Secretary, Government of Maharashtra, Mumbai.
5. Principal Secretary, Water Supply & Sanitation Department of Maharashtra, Mumbai.
6. Commissioner/Director, Directorate of Municipal Administration, Mumbai
7. Divisional Commissioner, All Revenue Division
8. All Collectors.
9. All Commissioners, Municipal Corporation.
10. All Chief Officers of Municipal Councils.
11. State Mission Director, Directorate of Clean Maharashtra Movement, Mumbai
12. Selection file, Urban Development - 34.

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Govt. Order No.CMM-2018/C.N.329/U.D.-34 dated 13 November, 2018

Sr. No.	Name of Civic Body
1	Devli Municipal Council
2	Kalameshwar Municipal Council
3	Sindi Municipal Council
4	Ramtek Municipal Council
5	Pulgaon Municipal Council
6	Sawantwadi Municipal Council
7	Mohapa Municipal Council
8	Gadchiroli Municipal Council
9	Movad Municipal Council
10	Hinganghat Municipal Council
11	Pawni Municipal Council

12	Ghatanji Municipal Council
13	Satara Municipal Council
14	Chandur Bazar Municipal Council
15	Chandur Railway
16	Sindkhed Raja Municipal Council
17	Chikhaldara Municipal Council
18	Murgud Municipal Council
19	Uran Municipal Council
20	Murud Municipal Council
21	Patur Municipal Council
22	Faijpur Municipal Council
23	Council Sakoli Municipal Council
24	Jawhar Municipal Council
25	Wadi Municipal Council
26	Basmat Municipal Council
27	Deulgaon Municipal Council
28	Kurduwadi Municipal Council
29	Sangole Municipal Council
30	Matheran Municipal Council
31	Balapur Municipal Council
32	Kurundwad Municipal Council
33	Mangrulpir Municipal Council
34	Ashta Municipal Council
35	Bhadrawati Municipal Council
36	Rajapur Municipal Council
37	Warud Municipal Council
38	Anjangaon Municipal Council
39	Jejuri Municipal Council
40	Digras Municipal Council

41	Khultabad Municipal Council
42	Darvha Municipal Council
43	Desaiganj Municipal Council
44	Arni Municipal Council
45	Shegaon Municipal Council
46	Murtijapur Municipal Council
47	Hupari Municipal Council
48	Roha Municipal Council
49	Malkapur Municipal Council(Kolhapur)
50	Khapa Municipal Council
51	Bhagur Municipal Council
52	Nawapur Municipal Council
53	Tirora Municipal Council
54	Mahad Municipal Council
55	Ratnagiri Municipal Council
56	Ner Municipal Council
57	Telhara Municipal Council
58	Karjat Municipal Council
59	Alibag Municipal Council
60	Khed Municipal Council
61	Narkhed Municipal Council
62	Umari Municipal Council
63	Nadurga Municipal Council
64	Umarkhed Municipal Council
65	Rahata Municipal Council
66	Indapur Municipal Council
67	Bramhapuri Municipal Council
68	ShendurjanaGhat Municipal Council
69	Risod Municipal Council

70	Morshi Municipal Council
71	Mudkhed Municipal Council
72	Bhor Municipal Council
73	Chikhali Municipal Council
74	Kagal Municipal Council
75	Nandgaon Municipal Council
76	DhamanDattapur Municipal Council
77	Mhaswad Municipal Council
78	Lonar Municipal Council
79	Junnar Municipal Council
80	Kalamnuri Municipal Council
81	Khopoli Municipal Council
82	Malwan Municipal Council
83	Kinwat Municipal Council
84	Dharur Municipal Council
85	Pusad Municipal Council
86	Umared Municipal Council
87	Sawner Municipal Council
88	Dharangaon Municipal Council
89	Jamkhed Municipal Council
90	Pathardi Municipal Council
91	Hadgaon Municipal Council
92	Dharmabad Municipal Council
93	Bhum Municipal Council
94	Loha Municipal Council
95	Warangaon Municipal Council
96	Rahuri Municipal Council
97	Pathari Municipal Council
98	Sillod Municipal Council

99	Ambad Municipal Council
100	Yawal Municipal Council
101	Erandol Municipal Council
102	Aalandi Municipal Council
103	Majalgaon Municipal Council
104	Tumsar Municipal Council
105	Akot Municipal Council
106	Mehkar Municipal Council
107	Pandharkawda Municipal Council
108	Shrigonda Municipal Council
109	Malkapur Municipal Council (Amravati)
110	Karmala Municipal Council
111	Palghar Municipal Council
112	Wadgaon Municipal Council
113	Parola Municipal Council
114	Sawda Municipal Council
115	Nandura Municipal Council
116	Jamner Municipal Council
117	Wai Municipal Council
118	Wai Municipal Council
119	Tuljapur Municipal Council
120	Taloda Municipal Council
121	Deglur Municipal Council
122	Rajura Municipal Council
123	Kandhar Municipal Council
124	Kannad Municipal Council
125	Chopada Municipal Council
126	Khamgaon Municipal Council
127	Kamthi Municipal Council

128	Manwat Municipal Council
129	Buldhana Municipal Council
130	Wai Municipal Council
131	Gadhinglaj Municipal Council
132	Gondiya Municipal Council
133	Umaraga Municipal Council
134	Igatpuri Municipal Council
135	Yavatmal Municipal Council
136	Amalner Municipal Council
137	Chiplun Municipal Council
138	Islampur Municipal Council
139	Shirpurwarwade Municipal Council
140	Tasgaon Municipal Council
141	Pachora Municipal Council
142	Ahmadpur Municipal Council
143	Daund Municipal Council
144	Kopargaon Municipal Council
145	Raver Municipal Council
146	Dondiichawarwade Municipal Council
147	Selu Municipal Council
148	Yewala Municipal Council
149	Dahanu Municipal Council
150	Shrirampur Municipal Council
151	Karanja Municipal Council
152	Satana Municipal Council
153	Shirur Municipal Council
154	Ambajogai Municipal Council
155	Shahada Municipal Council
156	Nilanga Municipal Council

157	Udagir Municipal Council
158	Akkalkot Municipal Council
159	Manmad Municipal Council
160	Bid Municipal Council
161	Parali Municipal Council
162	Talegaon Municipal Council
163	Usmanabad Municipal Council
164	Phaltan Municipal Council
165	Sinnar Municipal Council
166	Hingoli Municipal Council
167	Chalisgaon Municipal Council
168	Ambadnath Municipal Council
169	Bhusawal Municipal Council
170	Badlapur Municipal Council
171	Malegaon Municipal Corporation
172	Jalna Municipal Council
173	Nanded Municipal Corporation
174	Parbhani Municipal Corporation
175	Jalgaon Municipal Corporation
176	Dhule Municipal Corporation
177	Barshi Municipal Council
178	Amravati Municipal Corporation
179	Ichalkaranji Municipal Council
180	Ulhasnagar Municipal Corporation

-TRUE COPY-

ANNEXURE A-9

Govt Order No.CMM-2018/C.N. 311(26)/U.D.-34.
Hutatma Rajguru Square, Madam Kama Road,
Mantralaya, Mumbai - 400032
Dated 16.11.2018

Reference:-

1. Govt. Order, Urban Development Department No.CMM-2015/C.N.23/U.D.-34, dated 15.05.2015.
2. Extract of the meeting dated 04.09.2018 of Higher Authority Committee established under Clean India Movement (Urban) Higher Authority Committee.

INTRODUCTION:-

To give clean environment and better health to the people of urban areas and to provide toilets, Central Government has launched Swachha Bharat Mission for urban areas. That on the verge of Swachha Bharat Mission for urban areas of Central Government, the State Government had implemented as per Government Order started Swachha Maharashtra Mission for urban areas. Under this mission elimination of open defecation and make it clean under solid waste management project.

2. Under Swachha Maharashtra Mission Water Supply & Sanitation Department of Maharashtra has sanctioned the technical sanction to the solid waste management project for 32 cities of the State. NIRI institution has made appraisal of the said project and forwarded to State Government for sanction, accordingly under Swachha Maharashtra Mission for Urban Areas, a committee established under said mission under president ship of Chief Secretary a high authority committee has sanctioned solid waste management project for 32 cities for Rs. 174.95 Crore in its meeting, in which solid waste management project of Rs.40.7087 Crore for Amravati Municipal Corporation

is included. Accordingly to grant sanction to solid waste management project for Amravati Municipal Corporation Area was under consideration.

GOVERNMENT ORDER:-

Government of Maharashtra has granted permission to solid waste management project of Rs.40.7087 Crore for Amravati Municipal Corporation under Swachha Maharashtra Mission subject to terms and condition mentioned in paragraph 4 as follows.

2. Permitted financial figure of solid waste management project of Amravati Municipal Corporation, Amravati.

(Figure in Crore)

Cost of Sanction Project (As per DPR)	Swachha Bharat Mission (Urban) Sanction Cost	Grant sanction by Central Government (permissibleupt o 35 % of the project)	Permissible grant in ratio 60:40 by Central and State Government	Partnership of Local Civic body (excluding permissible grant of Central and State Government)
1	2	3	4	5
40.7087	77.6468	14.2480	9.4987	16.9619
				From 14th Finance Commission -Rs. 16.9619 Crore.

3. Procedure for distribution of Funds:-

3.1 Funds granted by the Central and State Government will be provided in two installments as per the guidelines given by the Central Government in terms of Swachha Bharat Mission.

3.2 The funds which are distributed as per guidelines given is to be kept in the banks as per the provided guidelines of Government by depositing in separate account.

3.3 The funds which are provided for the said project can only be use for the same project and if it use for other purposes then it should be treated as serious financial irregularities.

3.4 After the sanction of the project by the State Government for any local civic body, increase in the cost of project for any reason the responsibility will lies on the local civic body and in that event State Government will not provide any additional grant for the project.

3.5 Local civic body will have to arrange the additional amount other than those provided by Central and State Government as mentioned in column no. 5 under Swachha Maharashtra Mission for the project of solid waste management and spend as per the ratio of Central and State Government.

3.6 As per Financial Table of Swachha Maharashtra Mission, the local civic body has to raise funds of their part and local civic body is duty bound to submit consolidate cost utility certificate as per provided format by the Central Government.

3.7 The second installment will be provided only after submitting consolidate cost utility certificate as per provided format by the Central Government for first installment released by Central and State Government of their part.

4. TERMS AND CONDITION

4.1 Amravati Municipal Corporation will be implementation authority.

4.2 Implementation authority is under obligation to complete the said project within the specified period given under Solid Waste Management

Rules, 2016 and as per the guidelines given by the Central Government and Government Order mentioned in reference no. 1.

4.3 Detail project report of solid waste management project is prepared as per the guidelines under Solid Waste Management Rules, 2016. The success of the said report is based on the separation of solid waste on the spot. Hence it is necessary to collect the solid waste by separating on the spot.

Accordingly Amravati Municipal Corporation is under obligation until December 2018 on daily basis to collect the solid waste by separating them on the spot upto 90% of daily solid waste.

4.4 Corporation is under obligation to process the wet waste which is separated during the collection by central of de-central mechanism.

4.5 Implementation authority is under obligation to complete the transportation and scientific process of separated waste as per the terms mentioned in project report.

4.6 A committee was formed under the Chairmanship of Commissioner /Director Municipal Administration as per Government Order dated 27.10.2017 and dated 17.11.2017 to study and to implement the biomining process for scientific process on solid waste which is collected without any process in cities of the State. As per recommendation of this committee permission has been granted to establish biomining pilot projects in selected cities. That considering the experiences of such pilot project now Government is granting permission to the Amravati Municipal Corporation as per their detail project report for conducting biomining works on following terms and conditions.

(1) The rates for the biomining work are mentioned in detail project report of solid waste management for the related cities. Said rates are now modified and accordingly for Amravati Division, the rates will be Rs.420/per cubic

meter. Now as the rates of biominingare modified as per detail report of the project hence firstly technical permission is to be taken from Water Supply & Sanitation Department of Maharashtra.

(2) The draft tender for biomining work is prepared by State Mission Directorate hence related cities are directed to obtain the said draft of tender for biomining work from State Mission Directorate and make such necessary amendments and then publish the same. That under draft tender the installments of bills payable to contractor are mentioned and installments are associated with the places which are recovered after biomining process and hence related cities are not permitted to amend the same.

(3) After considering the scope of biomining work as contemplated in detail project report it is the local civic body who is responsible to repossess the 90 % of land from the land where old west is dump.

(4) The related local civic body/appointed agency will be responsible for the proper disposal of the production and the remaining west after biomining process.

(5) If after biomining process the local civic body failed to repossess the estimated waste filling land the related officers and employees will be held responsible for the same.

4.7 A required machinery instruments for solid waste management project as mentioned in detail project report are necessarily be purchased from the Government Marketplace portal (GeM) if purchase was not made from this portal it will be treated as financial irregularities and Government will be entitled to take proper action.

4.8 The detail project report is prepared considering the need of future ten years. While implementing the project report necessary purchase and construction to be done according to present need.

4.9 The local civic body/appointed agency is under obligation to pay the bills of the work within 15 days which are granted by the designated officer after making enquiry of the completed work and quality of work.

4.10 Local civic body will develop its own mechanism for maintenance of local solid waste management project and its expenses.

5. Appointed agency will be under obligation to fulfill the objectives while implementing solid waste management project for Amravati Municipal Corporation under Clean India Mission (Urban) which are as under:

- 100 % segregation at source of the solid waste from the city.
- Transportation of segregated waste as per the segregation.
- To make compost fertilizer from wet waste or to process the wet west as per bio-mechanization.
- If from wet waste compost fertilizer is produce then it should be examine from the State Government recommended laboratories according to standards of FCO for organic fertilizers to get the brand ”Harit Mahacity Compost" and to sell the said organic fertilizer under the name and styled as "Harit Mahacity Compost”.
- That on material recovery facility the dry waste will be segregate as secondary segregation. That the dry waste which can be recycled will be used and if possible sold the same.
- It will be mandatory to dispose off the remaining waste on the dumping land after the completion of above mentioned all process.
- It is mandatory to repossess the 90 % of land from the land from the dumping site after completion of all process conducted on old waste.

6. Said Government order is available on website of Maharashtra Government **www.maharashtra.gov.in**. The code of the said order is 201811161243259025. This order has pass by digital signature.

Under the name and by order of Hon'ble Governor of Maharashtra.

Sd/-
Kailas. M. Badhan
Dy. Secretary
Maharashtra Government

Copy to :-

1. Upper Chief Secretary of Hon'ble Chief Minister.
2. Personal Secretary to the State Minister Urban Development Department.
3. Personal Assistant to Upper Chief Secretary, Finance Department.
4. Personal Assistant to Upper Chief Secretary, Planning Department.
5. Personal Assistant to Principal Secretary Urban Development Department (2).
6. Member Secretary of Water Supply & Sanitation Department of Maharashtra, Mumbai.
7. Commissioner/Director, Directorate of Municipal Administration, Mumbai.
8. State Movement Director, Directorate of Clean Maharashtra Movement, Mumbai.
9. Divisional Commissioner, Amravati Division, Amravati.
10. Collector, Amravati.
11. Officer District Administration, Amravati.
12. Commissioner, Amravati Municipal Corporation
13. Selection file, Urban Development - 34.

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Govt. Order No.CMM-2018/C.N.311(26)/U.D.-34 dated 16.11.2018

ABSTRACT OF COST

No.	DESCRIPTION OF ITEM	ZONE – I (IN RS.)	ZONE – II (IN RS.)	ZONE – III (IN RS.)	TOTAL AMOUNT (IN RS.)
PART-I Waste Collection & Transportation					
1	Cost Estimates of Equipments and Vehicles for Primary Waste Storage, Primary Waste C & T Door to Door Collection (DTDC), Street Sweeping, Secondary Waste Transportation System.	0.00	0.00	0.00	0.00
	Sub Total (PART I)	0.00	0.00	0.00	0.00
(PART II) Waste Processing and Disposal					
A	Waste Processing				
2	Cost Estimates for Civil Works	24,59,892.00	15,17,996.00	8,71,115.00	48,49,003.00

	of Dumping Yard				
3	Cost Estimates for Civil Works Materials Recovery Facility (MRF) Shed	51,93,219.00	42,65,938.00	33,86,431.00	1.28,45,588.00
4	Cost Estimates for Civil Works of window Platform	3,30,91,278.00	2,11,67,800.00	1.12,31,665.00	6,54,90,733.00
5	Cost Estimates for Civil Works of Bio Gas Plant	2,55,90,000.00	0.00	0.00	2,55,90,000.00
	Sub Total (A)				
B	Waste Disposal				
6	Cost Estimates for Civil Works of Scientific Landfill site	5,00,76,643.00	0.00	0.00	5,00,76,643.00
	Sub Total (B)				
C	Site Development				
7	Cost Estimates for Civil Works of Security &	3,87,429.00	3,87,429.00	3,87,429.00	11,62,287.00

	Operating Room				
8					
9	Cost Estimates for Civil Works of Toilets	2,51,373 30	2,51,373 30	2,51,373 30	7,54,119.00
10	Cost Estimates for Civil Works of Drainage Works	10,87,322.00	5,90,224.00	5,90,224.00	22,67,770.00
11					
12	Cost Estimates for Civil Works of Pavement Works	12,81,997 00	6,41,165.00	6,41,165.00	25,64,337.00
13	Cost Estimates for Bio-mining of Old Dumped Waste	8,24,75,930. 00	0.00	0.00	8,24,75,930.00
14	Cost Estimates For Green Belt Development	3,21,057.00	2,85,384.00	2,49,712.00	8,56,153.00
15	Cost Estimates for Building Block	2,27,232.00	2,27,232.00	2,27,232.00	6,81,696.00
16	Cost Estimates for Fire Safety Works	78,192.00	52,128.00	34,752.00	1,65,072.00

17	Cost Estimates for Water Supply Works	5,02,085.00	5,02,085.00	5,02,085.00	15,06,255,00
18	Electricity Agreement, Culture & Safety Equipments	21,42,784.00	6,64,932.00	4,25,940.00	32,33,656.00
19	GST for Civil Work @ 12% (Item No.2+3+4+5 +6+7+8+9+ 10+11+12+ 14+1 5+17)	1,44,56,343. 00	35,80,395.00	22,00,611.00	2,02,37,349.00
	Sub Total (C)	10,32,11,744 .30	71,82,347.30	55,10,523 30	11,59,04,614.9 0
D	**Plant & Machinery, Vehicle and Equipments**				
20	Cost estimates for plant & Machinery, Vehicle & Equipments	6.14,09,609. 00	3,66,56,525. 00	2,42,55,625.0 0	12,23,21,759.0 0
	Sub Total (D)	6,14,09,609. 00	3,66,56,525. 00	2,42,55,625.0 0	12,23,21,759.0 0
	Sub Total (PART II = A+B+C+D)	28,10,32,385 ,00	7,07,90,606. 30	4,52,55,349.3 0	39,70,78,340.9 0
	Total Capital	28,10,32,385	7,07,90,606.	4,52,55,349.3	39,70,78,340.9

	Cost (PART I + PART II)	,00	30	0	0
PART III	**Awareness and IEC**				
21	For A-Class Municipal = 1 Cr. Of 5% DPR Cost: whichever is less.				1,00,00,000.00
22	Construction Material Testing Charges				9,300.00
				Sub Total (III)	**1,00,09,300.00**
				GRAND TOTAL (I+II+III)	**40,70,87,640.90**

Principal

-TRUE COPY-

Maharashtra Jeevan Pradhikaran

Telephone No.
(Off) 0721- 2664292/2664360
(Direct) 0721- 2664290
Fax 0721- 2663332

Chief Engineer
Maharashtra Jeevan Pradhikaran
Regional Department "Akshitam"
Maltekdi, Amravati-444 601.
E-mail: ce_amravati@mjp.gov.in

Modified Technical Sanction Order

Technical sanction point No. 32, Month of November, 2018

Subject:- Project of Solid Waste Management under Swachh Maharashtra Mission (Urban), Municipal Corporation, Amravati, District-Amravati.

Reference:- Letter of this office No. MJP/SO/Am/RCS/TecS/2012/2018, dt-1/9/18

As per reference letter, technical sanction had been granted to the of Project of solid waste management Report worth Rs. 40,70,87,641/- under Swachh Maharashtra Mission (Urban) for the area of Municipal Corporation Amravati. Biomining work is included in this project report. Hon'ble Member Secretary, Maharashtra Jeevan Pradhikaran, Mumbai has modified the rate of work of biomining vide his letter no. SECPDM/SWM/383,dt- 9/7/18.

Accordingly, as the changes are made in the rate of biomining in the report of solid waste management project of Municipal Corporation Amravati, the worth of project became less. Therefore, the technical sanction given previously by the reference letter is cancelled. On inspecting the modified project, modified technical sanction has been granted to the worth of budget of Rs. 37,97,57,851/- (In words Rupees thirty seven crore ninety seven lakh fifty seven thousand eight hundred and fifty one only) subject to terms and conditions under Form No. 85, Point No. 32, November 2018.

Terms and conditions

1) For the said proposal, funds are to be made available through Urban Development Department of the Government under Swachh Maharashtra Mission. Therefore, the terms and conditions of Government t Resolution, guidelines issued by government time to time for this programme should nave to be followed.
2) Before opening tender, working Estimate should have to be prepared and then it shall be necessary to get sanction it from the competent authority.
3) It shall be the responsibility of Municipal Corporation to publish tender by determining the Size and Specification of Appurtenance in Bio-gas Plant and by taking sanction of the competent authority to the detail budget.
4) Action should have to be taken in respect of Royalty Charges as per the terms mentioned in the rate list of Public Works Department.
5) By Identifying the Landfill Area by Land Development Authority, assumption should have to confirm that the same has handed over to the Municipal Corporation.
6) After completing the said project of solid waste management, it shall be the responsibility of Municipal Corporation to increase the house-taxes as required for the purpose of axiomatic the same.
7) Rough provisions have been made for the points which are not included in the rate-list. Quotation should be called and made sure of the rates.
8) Verification should have to be done once again by the Municipal Corporation regarding Landfill Location Criteria is according to MSW Manual 17.4.1.
9) Before calling tender of work, it should have to be made certain that the land required for project is in possession of Municipal Corporation.
10) It shall be responsibility of concerned Municipal Corporation to follow all the terms and conditions

accurately mentioned in Authorization Letter which to be obtained from Maharashtra Pollution Control Board for the said Project. Modified Authorization Letter should have to be obtained subject to Municipal Solid Waste Management Rules-2016.

11) Before starting actual construction, proposed Structural designs/drawings of all construction under the project should have to get sanctioned from the registered institutions.

12) If loss is caused in construction due to any reason, it shall be responsibility of the Municipal Corporation.

13) The said budgets are made on the basis of rate-list of Public Works Department at the State level of the year 2017-18, of the year 2016-17 of MJP and rate list of solid waste management of MJP of the year 2016-17 and therefore, the construction and measurements of works should be made as per the standard of Public Works Department.

14) For making drainage of water in proper way, precaution should be taken to keep systematic slope of drain and not to cause pollution.

15) On inspecting the technical side of the present work and proposed works, it should be associated.

16) It shall be mandatory to follow all guidelines and Circulars issued by the Government in respect of the programme of government under which the proposed works are to be taken.

17) Even though the technical sanction is granted to the proposal by MJP, MJP shall not accept any responsibility in respect of merit of the actual work as well as availability of funds.

18) Before starting actual work, material used in work for example cement, sand, metal, steel, rod, and concrete cube should be examined through government approved polytechnic, Mahavidyalay, Engineering Colleges. Similarly, at the time of actual work, Third Party

Inspection is compulsory so that the quality of work shall be good.

19) After completion of project and after set up of the concerned machineries, it shall be the responsibility of the concerned supplier to make implementation of the same perfectly. The terms about it should have to be included in the tender. Similarly, guarantee/warrantee of the machinery should have to be taken.

20) Some new vehicles have been proposed in the proposal to carry the solid waste. Prior to purchasing those vehicles, survey of the existing vehicles should be made and then only procedure should be done regarding purchasing of vehicles/machineries as per requirement.

21) It is necessary to give education of solid waste management to the citizens under Information, Education and Consultant (IEC). For that purpose, required campaign should be run by the Municipal Corporation. Roughly provision has been made in the budget for this purpose. By preparing the budgets in detail, the same should have to be get sanctioned from the competent authority.

22) Precaution should be taken that Bio medical waste disposal is not come in the said solid waste project. The disposal of the said waste should be done independently by scientific way.

23) After getting Administrative approval to the said project, the terms and conditions mentioned in the Administrative approval should have to be followed accurately.

24) It is necessary to set up the fire extinguisher system through the Municipal Corporation near the Landfill site; so that it shall be possible to control fire immediately if there is caught fire otherwise there shall be possibility to cause danger of air pollution due to burning of waste.

25) It shall be the complete responsibility of Municipal Corporation to dispose of End Product (Compost and RDF) in this project.

26) It shall be the responsibility of Municipal Corporation to obtain no objection certificate from the entire concerned department prior to starting of said work.

27) By presuming that the Municipal Corporation has ascertained the rate list, lead charges and rate of materials mentioned in the budget, Rate Analysis in the budget has been inspected.

28) It shall be the responsibility of Municipal Corporation to ascertain the measures, rates in support of the measures given in budget and to pay the actual bill of work according to the actual resulted measures.

29) Prior to starting the works of Bio-mining and Landfill, deep study should be done of the measures of existing waste which have been dumped and analysis should be done as well as measures of it should be fixed through contour mapping and further works should be taken in hand as per requirement. If possible, simple and less expensive, at local level method should be used. Municipal Corporation should take proper care in that respect.

30) The said proposal has been inspected by assuming that the information, submitted by the technical consultant and concerned Municipal Corporation is proper. If any discrepancy is come to notice in that, it shall be the responsibility of Municipal Corporation to make proper changes according to it and take sanction from the competent authority.

31) Terms and conditions, instructions given in rate-list of MJP and Public Works Department. Similarly, terms, conditions, instructions of the points as required should have to be incorporated in the tender.

32) It shall be the responsibility of Municipal Corporation to obtain Prior Qualification Report/Technical Authorization from the institution "Neeri", Nagpur for proposed Technology and Processes in the said project.

33) On completing the work of project, the drawing records should be preserved.

Scanned by CamScanner

34) During construction of various appurtenance in the project, provision should be made chiefly of the required roads for easy traffic and accordingly internal structure of appurtenance should have to be made.

35) It is necessary to make process on Leachate, creating during process under the project, by collecting it at one place.

Sd/-
(S..S. Charthal)
Chief Engineer (A)

Maharashtra Jeevan Pradhikaran. Regional Division, Amravati

Outward No. MJP/CE/RCS/Tec/2606/2018
Date-20/11/2018

Copy to-

1) Hon'ble Member Secretary, MJP, Mumbai , respectfully submits for information.
2) Hon'ble State Campaign Director, Swachh Maharashtra Mission (Urban), Nariman Point, Mumbai, respectfully submits for information.
3) Superintending Engineer, MJP, M.N.S.V.S. Thane area, forwarded for information.
4) Commissioner, Municipal Corporation, Amravati, for information and for further action.

Enclosure Letter:- One Proposal

5) Superintending Engineer, MJP, Board, Amravati forwarded for information
6) Executive Engineer, MJP Department, Amravati, forwarded for information

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Detailed Project Report (DPR) For Solid Waste Management (Under Swachh Maharashtra Mission)	NAME OF ULB:-	AMRAVATI
	NAME OF DISTRICT:-	AMRAVATI
	POPULATION (CENSUS 2011):-	6,47,057
	CLASS OF M. Corp.:-	D

ABSTRACT OF COST

NO.	DESCRIPTION OF ITEM	TOTAL AMOUNT (IN RS.)
PART-I	**Waste Collection & Transportation**	
1	Cost Estimates of Equipments and Vehicles for Primary Waste Storage, Primary Waste C&T Door to Door Collection (DTDC), Street Sweeping, Secondary Waste Storage & Secondary Waste Transportation System	0.00
	Sub Total (PART I)	**0.00**
PART-II	**Waste Processing & Disposal**	
A	**Waste Processing**	
2	Cost Estimates for Civil Works of Dumping Yard	48,49,003.00
3	Cost Estimates for Civil Works of Materials Recovery Facility (MRF) Shed	1,28,45,588.00
4	Cost Estimates for Civil Works of Windrow Platform	6,54,90,733.00
5	Cost Estimates for Civil Works of Bio Gas Plant	2,55,90,000.00
	Sub Total (A)	**10,87,75,324.00**
B	**Waste Disposal**	
6	Cost Estimates for Civil Works of Scientific Landfill Site	5,00,76,643.00
	Sub Total (B)	**5,00,76,643.00**
C	**Site Development**	
7	Cost Estimates for Civil Works of Security & Operating Room	11,62,287.00
8	Cost Estimates for Civil Works of Entrance Gate	0.00
9	Cost Estimates for Civil Works of Toilets	7,54,119.90
10	Cost Estimates for Civil Works of Drainage Works	22,67,770.00
11	Cost Estimates for Civil Works of Fencing Works	0.00
12	Cost Estimates for Civil Works of Pavement Works	25,64,327.00
13	Cost Estimates for Biomining of Old Dumped Waste	5,54,16,732.00
14	Cost Estimates For Green Belt Development	8,56,153.00
15	Cost Estimates For Building Block	6,81,696.00
16	Cost Estimate For Fire Safety Works	1,65,072.00
17	Cost Estimates For Water Supply Works	15,06,255.00
18	Electricity Arrangement, Culture & Safety Equipments	29,63,064.00
19	GST for Civil work @ 12 % (Item no. 2+3+4+5+6+7+8+9+10+11+12+14+15+17)	2,02,37,349.00
	Sub Total (C)	**8,85,74,824.90**
D	**Plant & Machinery, Vehicle and Equipments**	
20	Cost Estimates for Plant & Machinery, Vehicle & Equipments	12,23,21,759.00
	Sub Total (D)	**12,23,21,759.00**
	Sub Total (PART II=A+B+C+D)	**36,97,48,550.90**
	Total Capital Cost (PART I+PART II)	**36,97,48,550.90**
PART-III	**Awareness and IEC**	
21	For A- Class Municipal Council = 1 Cr. or 5% of DPR cost; whichever is less	1,00,00,000.00
22	Construction Material Testing Charges	9,300.00
	Sub Total (III)	**1,00,09,300.00**
	GRAND TOTAL (I+II+III)	**37,97,57,850.90**
	GRAND TOTAL (In LACS)	**3,797.58**

For MaRS Planning & Engineering Services Pvt. Ltd.
(Technical Consultant)
Ahmedabad, Gujarat

महापालिका, अमरावती

(P T O)

TECHNICAL SANCTION

Technically Sanctioned for

Rs. 37,97,57,851/-

Rs. Thirty Seven crore Ninty Seven Lacs fifty seven thousand, eight hundred fifty one only.

Vide Item No. 32 **of form No.85**

for the month of. November 2018

Chief Engineer
Maharashtra Jeevan Pradhikaran
Region, Amravati

Checked
L.B.Mule

Dhanpal

-TRUE COPY-

ANNEXURE A-11

REQUEST FOR PROPOSAL

FOR

Selection of Contractor

For

The Work of "Scientific Dumpsite Land Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati."

Under

Amravati Municipal Corporation, Amravati (Maharashtra).

VOLUME I: Request for Proposal (RFP) Document

DISCLAIMER

The information contained in this Request for Proposal (RFP) has been prepared solely to assist prospective Bidders in making their decision of whether or not to submit a bid. The Amravati Municipal Corporation (here in after referred to as "the Authority" in this Bid Document) does not purport this information to be all-inclusive or to contain all the information that a prospective Bidder may need to consider in order to submit a proposal. The designs, drawings, technical data and any other information provided in this RFP is only indicative and neither the Authority nor its employees, officers nor its consultants will make or will be deemed to have made any current or future representation, promise or warranty, express or implied as to the accuracy, reliability or completeness of the information contained herein or in any document or information, whether written or oral, made available to a Bidder, whether or not the aforesaid parties know or should have known of any errors or omissions or were responsible for its inclusion in or omission from this RFP.

Neither the Authority or its employees or consultants make any claim or give any assurance as to the accuracy or completeness of the information provided in this RFP Document. Interested parties are advised to carry out their own investigations and analysis of any information contained or referred to herein or made available at any stage in the bidding process in relation to the Project.

This RFP Document is provided for information purposes only and upon the express understanding that such parties will use it only for the purpose set forth above. It does not purport to be all-inclusive or contain all the information about the Projects in relation to which it is being issued.

The information and statements made in this RFP document have been made in good faith. Interested parties should rely on their own judgments in participating in the said Project. Any liability is accordingly expressly disclaimed even if any loss or damage is caused by any act or omission on part of the aforesaid, whether negligent or otherwise.

This RFP Document has not been filed, registered or approved in any jurisdiction. Recipients of this document should inform themselves of and observe any applicable legal requirements.

The Authority makes no representation or warranty and shall in unreliability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the RFP document.

The Authority reserves the right to modify, suspend, change or supplement his RFP. Any change to the RFP will be notified to all the Bidders to whom the RFP is issued. No part of this RFP and no part of any subsequent correspondence by the Authority, its employees, officers or its consultants shall be taken neither as providing legal, financial or other advice nor as establishing a contractor contractual obligation. Contractual obligations would arise only if and when definitive agreements have been approved and executed by the appropriate parties having the authority to enter into and approve such agreements. The Authority reserves the

right to reject all or any of the Bids submitted in response to this RFP at any stage without assigning any reasons whatsoever.

Bidders are responsible for all costs incurred by them when evaluating and responding to this document and any negotiation costs incurred by the recipient there after. The Authority may in its sole discretion proceed in the manner it deems appropriate which may include deviation from its expected evaluation process, the waiver of any requirements, and the request for additional information. Unsuccessful Bidders will have no claim whatsoever against the Authority nor its employees, officers nor its consultants.

I. Key Dates

Event	Date	Time	Web-Link/Venue
Start of Bid Download	17/12 /2018	16.00 pm	www.mahatender.gov.in
Pre-Bid Meeting	26/12/2018	11.00 am	At. Commissioner's Office, Amravati Municipal Corporation, Amravati
End Date of Online and Physical Bid Submission	11/01/2019	16.00 pm	Online Submission (Technical and Financial Bid): www.mahatender.gov.in Physical Submission (Technical Bid Only): Commissioner, Amravati Municipal Corporation, Amravati, Dist.- Amravati, Maharashtra
Technical Bid Opening	14/01/2019	16.00 pm	Amravati Municipal Corporation, Amravati
Financial Bid Opening	17/01/2019	16.00 pm	Amravati Municipal Corporation

II. Bid Data Sheet

A.

Tender Notice Number	AMC/SD/SWM-TEN/3155 /2018
Date of Issue	17/12 /2018
Tender Inviting Authority	The Amravati Municipal Corporation
Web-link	www.mahatender.gov.in

B.

Particulars	**Data**
Cost of Project	INR 5,54,16,732/-

Cost of Bid Document	INR 29,500/- (including GST 18%)
EMD	3% of total project cost (1% Paid should online)
Bid Validity Period	180 Days from the due date of Bidding
Eligible Bidder for Bidding	Individual Bidder/ Consortium/Joint Venture (Maximum 2 Members in Consortium/Joint Venture)
Method of Bid Submission	Online Submission- Technical & Financial Bid Physical Submission: Technical Bid Only
Performance Security	5 % of Contract Value (as per GRs of Maharashtra State)

III. All the correspondence should be in written, the written correspondence may be sent through email, fax or letter. All the communication and the bid submission should be addressed to the undersigned on the address below:

To,

T he Commissioner,
Amravati Municipal Corporation, Amravati (M.S)
Mob. No.: - 8668939250 – Dr.Vishal Kale (MOH)
Mob.No.:- 7030922905 - Dr.Ajay Jadhao (AMOH)

E-mail:-sanitationdepartment.amc@gmail.com

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1. Introduction

1.1. Background

The "Swachh Bharat Mission-Urban" (SBM-U) is a major initiative of Government of India with a vision of a 'Clean India' by 2019. To achieve the objectives of the Swachh Bharat Mission, Government of Maharashtra has launched "Swachh Maharashtra Mission" at the state level. Swachh Maharashtra Mission will be the nodal agency in urban areas for implementing the overall goals of SBM.

The Government of Maharashtra proposes to strengthen the entire MSWM system in all the Urban Local Bodies (ULBs) in Maharashtra so as to comply with the Solid Waste Management Rules 2016, Service Level Benchmarks of the Government of India (GoI) & achieve the objectives of Swachh Bharat Mission (SBM) by 2019.

1.2. Project Objective

To fulfill the objectives of the Swachh Maharashtra Mission, the Amravati Municipal Corporation, through this proposed project aims at reclamation of land from the existing dumpsite, Sukali Compost Depot, Amravati through the process of Bio-mining.

1.3. Current scenario

Sr. No.	Description	Details
1.	Population (Census 2011)	6,47,058
2.	Present Waste Generation (2017)	250 TPD estimated
3.	Dumpsite Site Location	Sukali Compost Depot.Amravati
4.	Approximate Total Old Waste at Site (Legacy Waste) to be processed for bio-mining	**131946.20 m^3**
5.	Total Area of the Site	9.35 HR

1.4. Current Tender

The Amravati Municipal Corporation (herein after referred to as "the Authority" in this Bid Document) is seeking proposals from eligible Bidders to undertake the works required for Scientific dumpsite reclamation through Bio-mining of legacy waste/un-processed municipal solid waste by excavation of complete mixed MSW from the dumpsite which underwent biological and physical degradation, resource recovery by using suitable mechanical sieving machine or any other suitable equipment/method, segregating, sorting, retrieving recoverable materials, storing, selling, diverting for recycling, dumpsite land reclamation, development of disposal facility and scientific residual Solid Waste disposal in disposal facility dumpsite during

contract period and hand back of reclaimed land and disposal facility to the Amravati Municipal Corporation at the end of contract period.

1.5. Objective of the Bid Document

This Bid Document is structured to provide prospective Bidders with sufficient information on which to prepare a Proposal and is organized in the following manner:

VolumeI: Request for Proposal Document

- Introduction
- Instruction to Bidders
- Preparation of Bid
- Submission of Bid
- Bid Opening and Evaluation
- Scope of Project
- Payment Schedule
- Miscellaneous

Volume II: Draft Contract Agreement

Volume III: Conditions of Contract

2. Instruction to Bidder

2.1. Scope of Bid

2.1.1. The Authority invites bids for the execution of works (herein after referred to as "the works") detailed in this Bid Document.

2.1.2. The successful bidder will be expected to complete the works by the intended completion date specified the bid data sheet of this RFP document.

2.2. Eligible Bidder

2.2.1. A Bidder may be a natural person, private entity, government-owned entity or any combination of them with a formal intent to enter into an agreement or under an existing agreement to form a Consortium/Joint Venture. For an applicant/ bidder can submit the Bid either individually or form a consortium. In case the Bidder is a Consortium/Joint Venture, it shall, comply with the following additional requirements:

(i) The number of members (incorporated under The Companies Act, 2013) in a Consortium /Joint Venture would be limited to 2 (two) members. The Members of the Consortium/Joint Venture shall nominate one member as the lead member (the "Lead Member"), the member other than the lead member shall be termed as the "the technical member". "The lead member" and "the technical member" are to be defined and detailed in the Form-2 of the Technical Bid submission forms provided in this RFP document. It is clarified that the lead member of the consortium would be regarded as being responsible for the due implementation of this Project. In computing the Technical Capacity and Financial Capacity of the Bidder / Consortium Member / Joint Venture, the Technical Capacity and Financial Capacity of their respective Associates shall also be considered.

(ii) Combined Technical capacity of all Consortium/Joint Venture members ("the Lead Member" and "the Technical Member") shall be considered towards qualifying and evaluation criteria, however the Financial strength of only the Lead member shall be considered towards qualifying and evaluation of Financial Capacity as prescribed in the clause 2.3.2 of this RFP document.

(iii) A consortium/Joint Venture shall have registered agreement wherein roles and responsibilities of Consortium members/joint venture parties clearly mentioned. The aforesaid mentioned agreement should be submitted along with the Bid in the format of Form 5of technical bid submission forms provided in the RFP document.

(iv) The Consortium/Joint Venture members shall nominate a person as the Authorize signatory from the Lead Member of the Consortium/Joint Venture who shall be authorized to sign their bid submission, the contract agreement or any

correspondence with the Authority. A power of Attorney in the name of Authorized Signatory has to be furnished by the Consortium/Joint Venture bidder along with their technical proposal. The Power of Attorney shall be as per the format providing in Form 4 of this RFP document.

2.3. Pre-Qualification Criteria

2.3.1. Technical Capacity

For demonstrating technical capacity ("the technical capacity"), the bidder has to comply with both of the following conditions (i) and (ii):

(i) Successfully handled, during preceding three financial years prior to the due date of this Bid submission, projects relating to:
   (a) Operation of Scientific Dumpsite Reclamation/ Bio-mining
   Or,
   (b) Operation of Municipal Solid Waste (MSW) is processing /treatment facility using segregation and composting of MSW.

(ii) Should have handled, during preceding three financial years prior to the due date of this bid submission, projects as mentioned in sub-clause (i) above, at least:
   (a) One Project of Minimum 30% of the quantity of waste mentioned in the sr.no. 4 of clause no. 1.3 of this tender document
   Or,
   (b) Multiple Projects (more than one) of aggregate 30% of the quantity of waste mentioned in the sr.no.4 of clause no. 1.3 with at least one of eligible project of capacity of 10% quantity of waste given in sr.no. 4 of clause no. 1.3 of this tender document.

Note:

- In case an eligible project for accessing "the technical capacity" has been jointly executed by the Bidder (as part of a consortium), then the entity claiming such eligibility should satisfy both of below conditions:
   (a) Have held minimum 51% share in the project for which the experience is being claimed the claiming entity shall produce proof of percentage shareholding in the project for which experience is being claimed.
   (b) The project shall be qualified as 'eligible project' for "the technical capacity only if the percentage shareholding in the project multiplied with the total project capacity is satisfying the criteria laid down in clause 2.3.1 above.

- The eligible projects claiming "the Technical Capacity" should have been executed for any Local Body/ any Government / Semi-Government Organizations / Public Sector Undertakings in India with direct contract with them.

2.3.2. Financial Capacity

For demonstrating the financial capacity ("the Financial Capacity"), the bidder has to comply with each of the following conditions:

(i) Minimum average turnover of INR 3.00 Cr. (50% of total project cost) in the preceding three financial years from the due date of submission of this bid;

(ii) Shall have a positive net worth of minimum INR 0.56 Cr. (10% of total project cost) in the preceding three financial year from the due date of submission of this bid;

(iii) Shall have availability of Liquid assets and/or availability of credit facilities of no less than INR 3.00 Cr. (50% of total project cost) at the time of submission of this bid. The bidder shall furnish Certificate for availability of Liquid asset dully certified from its statuary auditor/ certificates from banks for meeting the fund requirement to this effect.

Note:

- For the purpose of this RFP, turnover ("the turnover") shall mean the average of annual revenues from execution of the projects as listed in Clause 2.3.1 (i) during the preceding three financial years from the due date of submission of this bid. This shall not include capital grants/capital subsidies/donations/salaries/dividend/bonus/commission and interest income.

- For the purposes of this RFP, net worth (the "Net Worth") shall mean:

  (a) In case of Private Limited/ Limited Companies incorporated under the Companies 1956 (or the Companies Act 2013) (or equivalent Act in case of Foreign bidder) shall mean the sum of subscribed and paid up equity and all reserves created out of the profits and securities premium account after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation (as prescribed in the Companies Act2013).

  (b) In case of Partnership Firms means partners' capital plus reserve & surplus.

  (c) In case of individuals means sum total of all assets less liabilities.

2.3.3. Other Pre-Qualification Criteria

(i) The bidder should be technically capable enough to ensure all environmental hazard mitigation measures and demonstrate expertise in EHS – Environment, health and safety aspects and impacts that need to be addressed at dumpsite while adopting the works. The bidder shall furnish a write up in the format as provided in the Form10 of this RFP document demonstrating their proposal to follow the measures for the Protection of Environment, Health and Safety while executing the Works.

2.4. Essential Pre-Qualification Documents

Bidder to enclose all of the following documents in support of his pre-qualification for bidding:

(i) Incorporation certificate of the company/Proof of Company registration document/MoA;

(ii) Copy of Agreement with the concerned client;

(iii) Certificate(s) (completion or Currently operating, as the case may be) from its concerned client(s) in support of "the technical capacity" clearly stating the capacity of project (or, quantity processed till date in case of currently running project) including performance of the firm for the work completed during the contract period of the project in respect of the projects whose experience is claimed.

- Performance certificate should be issued from the concerned client(s) (Certificate issued by the officer of rank below then Executive Engineer/ Project Manager or equivalent) shall only be considered.
- In case a particular work/ contract has been jointly executed by the Bidder (as part of a consortium/ Joint Venture), it should further support its claim for the share in work done forth at particular work/ contract by producing a certificate from its client;

(iv) Audited balance sheet of preceding three financial years from the due date of submission of this bid and Certificate(s) from its Statutory Auditors in support of "the Financial Capacity"

- Certificate specifying the average Turnover of the Bidder (Individual bidder/Lead Member of Consortium/Joint Venture) in preceding three financial years from the due date of submission of this bid, and also specifying the methodology adopted for calculating such Turnover conforming to the provisions of this Clause.

- Certificate(s) specifying the net worth of the Bidder (Individual bidder/Lead Member of Consortium/Joint Venture), at the close of the preceding financial year from the due date of submission of this bid, and also specifying that the methodology adopted for calculating such net worth.

(v) Certificates from bank(s) for the arrangement of credit/fund for Project development as per the format provided in Form 7 of this RFP document.

(vi) Copy of the latest Service Return filed/ Copy of PAN Card;

(vii) GSTIN number;

2.5. One bid per Bidder

A Bidder is eligible to submit only one Bid for the Project in entire bidding process either individually or as a member of any one Consortium. Applicant/Bidder shall not be entitled to submit another bid either individually or as a member of any other Consortium, as the case may be.

2.6. Cost of Bidding

The Bidders shall be responsible for all the costs associated with the preparation of their Bids and their participation in the Bidding Process. The Authority will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

2.7. Site Visit and verification of Information

2.7.1. Prior to submitting the Proposal, the Bidders are advised to visit and examine the project site and its surroundings, obtain and ascertain for themselves all technical data, and other information necessary for preparing their Proposal (bid) including carrying out necessary technical surveys, field investigations, assets condition assessment etc. at its own cost and risk. Bidders are encouraged to submit their respective Bids after visiting the Project site/area to ascertain the ground situation, coverage, quality of assets or any other matter considered relevant by them. The Bidders shall be deemed to have full knowledge of the site conditions, whether physically inspected or not, if Bidder submits a Proposal for this project.

2.7.2. For the above purpose, the Bidders may approach the Authority for assistance during any site visit. The Bidders shall be responsible for all arrangements and shall release and indemnify the Authority and/or any of its agencies/consultants/advisors from and against all liability in respect hereof and shall be solely responsible for any personal injury, loss of or damage to property or any other loss, damage, costs or expenses, however caused, which, but for the exercise of such permission, would not have arisen due to this RFP.

2.7.3. It shall be deemed that by submitting a Bid, the Bidder has:

(i) Made a complete and careful examination of the Bidding Documents;

(ii) Received all relevant information;

(iii) Acknowledged and accepted the risk of inadequacy, error or mistake in the information provided in the Bidding Documents or furnished by the Authority and shall not be a basis for any claim for compensation, damages, extension of time of performance of its obligations, loss of profit etc. from the Authority, or a ground for termination of the Contract Agreement;

(iv) satisfied itself about all matters, things and information necessary and required for submitting an informed Bid, execution of the Project in accordance with the Bidding Documents and performance of all of its obligations there under;

2.8. Pre-Bid Meeting

2.8.1. The bidders or their official representative are invited to attend a pre-bid meeting. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage. The date, time and address of the Pre-bid meeting shall be as specified in the bid data sheet.

2.8.2. Bidders requiring any clarification on the bidding documents or questions on any matter that may be raised at that stage, may send their queries in written, addressed to contact person as mentioned in the Bid Data Sheet, latest by one day before the pre-bid meeting date mentioned in the bid data sheet. The responses of the Authority will be uploaded only on the Website **www.mahatender.gov.in** and shall not be communicated separately to the bidders.

2.8.3. The Authority shall endeavor to respond to the questions raised or clarifications sought by the Bidders. However, the Authority reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring the Authority to respond to any question or to provide any clarification which will have material adverse effect on the bidding outcome.

2.8.4. The Authority (AMC) may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by the Authority shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by Authority or its employees or representatives shall not in any way or manner be binding on the Authority.

2.9. Amendment in the Bidding Document

2.9.1. At any time prior to the deadline for submission of proposals, the Authority may amend the RFP documents, including any contractual document, by issuing an Addendum.

2.9.2. Any Addendum thus issued shall be part of the RFP documents and shall be published on the website **www.mahatender.gov.in** The Authority may communicate in writing by mail or by fax to all short listed Bidders to whom the RFP documents are issued. The Authority bears no obligation for any bidder not receiving the information of the addendum issued to this RFP for any reason whatsoever

2.10. Conflict of Interest

2.10.1. A Bidder shall not have the conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the AUTHORITY (AMC) shall forfeit and appropriate the Bid Security or Performance Security, as the case may be. Without limiting the generality of the above, a Bidder shall be considered to have a 'conflict of interest' that affects the 'Bidding Process', if:

(i) Such Bidder (or any constituent thereof) and any other Bidder (or any constituent thereof) have common controlling share holders or other ownership interest;
Or;

(ii) A constituent of such Bidder is also a constituent of another Bidder;
Or;

(iii) Such Bidder receives or has received any direct or indirect subsidy from any other Bidder, or has provided any such subsidy to any other Bidder;
Or;

(iv) Such Bidder has the same legal representative for purposes of this Bid as any other Bidder;
Or;

(v) Such Bidder has a relationship with another Bidder, directly or through common third parties, that puts them in a position to have access to each other's information about, or to influence the Bid of either or each of the other Bidder.

2.10.2. A Bidder shall be liable for disqualification and forfeiture of Bid Security or Performance Security and termination of contract as the case may be, if a conflict of interest on part of Bidder is discovered by the Authority during the Bidding Process or subsequent to the (i) during the bidding process, or (ii) issue of letter of award (LoA) or (iii) execution of the Contract Agreement.

3. Preparation of Bids

3.1. Procedure for Participation in e-Tendering

3.1.1. Registration of Bidders on e-Tendering System

All the bidders have to register on the website www.mahatender.gov.in User-id/contractor- id and password will be provided to the bidders on their registered e-mail id after completing the registration process. After signing-in through the user-id/contractor-id the bidder can download the bidding document and participate in further bidding process. For more details on the e-tendering procedure the bidders may refer the information provide on the website www.mahatender.gov.in

Digital Certificate

The bids submitted online should be signed electronically with Digital Certificate to establish the identity of the bidder submitting the bid online. For more details on the process of getting digital certificate and signing the bid document through digital certificate the bidders are advised to refer the information provided on the website www.mahatender.gov.in

3.1.2. Key Dates

The bidders are strictly advised to follow the time schedule (Key dates) of the bid of their side for tasks and responsibilities to participate in the bid, as all the stages of each bid are locked before the start time and date and after the end time and date for the relevant stage if the bid as set by the Authority

3.1.3. Preparation and Submission of Bids

The bidders have to prepare their bid online, encrypt their bid data in the Bid forms and submit Bid of all the envelopes and documents related to the Bid required to be uploaded as per the time schedule mentioned in the key dates provided in this RFP document dafter singing of the same by the Digital Signature of their authorized representatives.

Note:

(i) Bidders are requested to visit our e-tendering website regularly for any clarifications and/or due date extension or corrigendum.

(ii) Bidder must positively complete online e-tendering procedure at www.mahatender.gov.in

(iii) The Authority shall not be responsible in any way for delay/difficulties/ inaccessibility of the downloading facility from the website for any reason whatsoever.

(iv) In case, due date for submission & opening of tender happens to be a holiday, the due date shall be shifted to the next working day for which no prior intimation will be given.

(v) The Authority reserves the right for extension of due date of opening of technical bid.

3.2. Bid Validity Period

The bids shall remain valid for a period specified in Bid Data Sheet from the due date of biding as prescribed by the Authority. The validity of the bid can be extended by mutual consent in writing.

3.3. Bid Document Fees

The Bid Document shall be available for download to concerned eligible bidders immediately after online release of the bids and up to scheduled time and date as set in the key dates. The bid document can be downloaded free of cost, however, the bidders have to pay Bid document fees, of the amount as mentioned in the bid data sheet, at the time of their online bid submission The payment for the cost of bid document shall be made online through Debit/Credit card, Net banking or NEFT Challan as per the instruction provided on the website.

3.4. Earnest Money Deposit

3.4.1. The Bidder shall furnish, as part of his Bid, an Earnest Money Deposit (EMD) of the amount as mentioned in bid data sheet of this RFP document. The EMD must be submitted online through Debit/Credit card, Net banking or NEFT Challan as per the instructions provided on the website www.mahatender.gov.in.

3.4.2. No interest shall be payable on the EMD. The Bidder shall bear the cost relating to providing its EMD.

3.4.3. Any Bid not accompanied by the EMD shall be rejected by the Authority as being a non-responsive Bid.

3.4.4. The EMD of unsuccessful Bidders will be returned within 30 days **(or after the date of Work order of L1 bidder, whichever is later)** of the date of finalization of successful Bidder or signing of the contract agreement with the successful bidder whichever is later. If the Bid is cancelled for any reason whatsoever, the EMD shall be returned to all the bidders within 30 days from the date of such cancellation.

3.4.5. The EMD of the successful Bidder will be retained by the Authority and returned after 15 days of signing of contract agreement and furnishing the performance guarantee by the successful bidder. The successful bidder shall ensure that its EMD remains valid during such period.

3.4.6. The EMD will be forfeited if:

(i) Any bidder withdraws its bid during the validity period of the Bid;

(ii) The successful Bidder fails to sign contract agreement or submit performance guarantee, as the case may be.

(iii) The Authority finds out that the bidder has involved in corrupt and fraudulent practice or has given any material miss-representation in its bid knowingly or unknowingly

(iv) Any other reason thereof mentioned in this bid document.

(v) The Bidders fails to comply with the Bid process

3.5. Technical Proposal

3.5.1. The Technical Proposal shall comprise of the following documents

(i) Essential pre-Qualification Documents as specified in the clause 2.4

(ii) Technical Bid

a) Form 1: Letter Comprising the Bid cum undertaking

b) Form 2: Format for Description of Bidder

c) Form 3: Power of Attorney for Signing of Bid

d) Form 4: Power of Attorney for Lead Member of Consortium

e) Form 5: Format for Consortium/Joint Venture Agreement

f) Form 6: Form for Financial Pre-Qualification

g) Form 7: Format for Banker's Certificate

h) Form 8: Format for summary of Technical Pre-Qualification

i) Form 8(A): Details of Projects eligible for Technical Pre-Qualification

j) Form 9 (A): Format for Providing Details of Machinery to be Deployed for the Project

k) Form 9 (B): Details of Key Personnel to be deployed for the Project

l) Form 10: Format for Providing Environment, Health and Safety Management Plan

3.5.2. All the documents/ information enclosed with the technical proposals should be self-attested and certified by the Bidder. The Bidder shall be liable for forfeiture of his EMD, if any document/ information are found false/fake/untrue before acceptance of Bid. If it is found after acceptance of the Bid, the authority may at his discretion forfeit his performance security/guarantee, security deposit, enlistment deposit and take any other suitable action.

3.6. Financial Proposal

3.6.1. The bidder shall have to quote rates in format of Financial Bid submission provided on the e-tender website. A format of the financial bid has been provided in this RFP document.

3.6.2. The price quoted by the bidder shall be entirely in Indian currency (INR).

3.6.3. The Amount in the Financial Proposal shall be quoted in figures as well as in words. If any difference in figures and words found, lower of the two shall be taken as valid and correct.

3.6.4. The bidder shall have to quote rates inclusive of GST, all duties, taxes and other levies.

3.6.5. The rates and prices quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to any adjustments on any account.

3.7. Documents Comprising the Bid

The Bid submitted by the bidder shall comprise of the following parts:

A. Bid Document Fees and EMD as per the details and instructions provided in clause 3.3 &3.4 respectively

B. Technical Proposal as per the details and instructions provided in clause 3.5

C. Financial Proposal as per the details and instructions provided in clause 3.6

3.8. Language of Bid

3.8.1. The bid and all related correspondence and documents shall be written in the English language. Supporting documents and printed literature furnished by the Eligible Bidder with the Proposal may be in any other language provided that they are accompanied by an appropriate translation into English. Supporting materials that are not translated into English shall not be considered. For the purpose of interpretation and evaluation of the Proposal, the English language translation shall prevail.

4. Submission of Bids

4.1. Online submission of Bids

The bidders have to submit their respective bids online, as per the instructions provided on the website www.mahatender.gov.in for online submission of bids. The bidders shall submit their Bids dully completed in all respect on or before the due date of bid submission after singing of the same by the Digital Signature of their authorized representatives. The Bid submitted online by the Bidder shall be in the following part:

Part 1: This shall be known as "Envelop-A- Bid Document Fees & Earnest Money Deposit" and shall contain the documents as mentioned in clause 3.7 (A)

Part 2: This shall be Known as "Envelop B- the Technical Proposal" and shall contain the documents as specified in clause 3.7 (B)

Part 3: This shall be Known as "Envelop C- the Financial Proposal" and shall contain the Price Offer of the Bidder as mentioned in clause 3.7 (C).

4.2. Physical Submission of Bids

4.2.1. The bidders have to submit the documents ("the Original Documents"), mentioned Part 2 of the clause 4.1 above in physical form ("the physical bid submission") within the date and time for Physical Bid Submission as mentioned in the Bid data sheet.

4.2.2. The physically submitted Bid, "The Technical Proposal", shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder (Photocopy/ Scanned Copy of the signature will not be accepted). The pages in Proposal should be numbered. Each page shall be initialed by an authorized signatory of the Bidder. All alterations, omissions, additions, or any other amendments made to the Proposal shall also be initialed by the person(s) signing the Proposal.

4.2.3. The physically submitted bid shall be enclosed in a sealed envelope, and superscripted as "PHYSICAL SUBMISSION OF TECHNICAL PROPOSAL FOR THE WORK _____ (NAME OF THE WORK) _____".

4.2.4. The envelope shall bear the due date of physical bid submission, name and address of the authorized signatory of the bidder and shall be addressed as mentioned in the Bid data sheet.

4.2.5. The Authority expects Bidders to adhere to the sealing and marking instructions given above and assumes no responsibility for the misplacement or premature opening of the contents of the Proposal submitted.

4.3. Bid Due Date

4.3.1. The due date and time of the bid submission is as mentioned in the Bid data sheet.

4.3.2. The Online Bid and the physical bid should be submitted on or before the due date of bid submission.

4.3.3. The Authority may, in its sole discretion, extend the Bid Due Date by issuing an Addendum in accordance with clause 2.9 uniformly for all Bidders and publish the Addendum on the website of **www.mahatender.gov.in**

4.4. Withdrawal, Substitution and Modification of Bids

Bidders can withdraw and modify their respective online submitted bids till the end of the due date of bid submission. The Bidder will not be able to modify a Bid after the due

date of submission of these Bids. The bid for which withdrawal request has been received by the Authority after the due date of bidding shall be declined from the bidding process. In the event of withdrawal of a Bid by the Bidder, after the due date of its submission, the Authority reserves the right to forfeit the EMD of the bidder at its sole discretion

5. Bid Opening and Evaluation

5.1. Procedure for Bid opening and Evaluation

5.1.1. The Authority designated officer open the Bids online on the Bid Opening Date and Time as specified in the Bid Data Sheet.

5.1.2. The Authority designated officer will subsequently examine and evaluate the Bids in accordance with the provisions set out in this section.

5.1.3. Proposals shall first be checked for responsiveness with the requirements of the RFP and only those Proposals which are found to be responsive would be further evaluated for qualification in accordance with the criteria set out in this RFP.

5.1.4. The Technical proposal shall be evaluated next based on the criteria set out in this RFP documents. The Financial bids of only those bidders who qualifies the technical qualification shall be opened.

5.1.5. All technically qualified bidders will be notified for opening of the Financial Bids.

5.1.6. The Municipal commissioner of Amravati have right to reject or accept any bid if there is Conflict between bidder & Tender Scrutiny Committee (TSC) members.

5.1.7. The Municipal Commissioner, Amravati and Bidder has decide arbitrator if there is legal Conflict between bidder & TSC.

5.2. Clarifications

5.2.1. To facilitate evaluation of Proposals the Authority may, at its sole discretion, seek clarifications from any Bidder during the evaluation period. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) shall be in writing. If a Bidder does not provide clarifications sought within the prescribed time, its Proposal shall be liable to be rejected. In case the Proposal is not rejected, the Authority may proceed to evaluate the Proposal by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of the Authority.

5.2.2. Bidders are advised that the evaluation of Proposals will be entirely at the discretion of the Authority. Bidders will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bidding Process or selection will be given.

5.2.3. Any information contained in the Proposal shall not in any way be construed as binding on the Authority, its agents, successors or assigns, but shall be binding against the Bidder if any Project is subsequently awarded to it under the Bidding Process on the basis of such information.

5.2.4. The Authority reserves the right not to proceed with the Bidding Process at any time without notice or liability and to reject any Proposal without assigning any reasons.

5.3. Confidentiality

5.3.1. The Authority shall ensure that the rules for the bidding proceedings for the Project are applied in a non-discriminatory, transparent and objective manner. The Authority shall not provide to any Bidder information with regard to the Project or the bidding proceedings, which may have the effect of restricting competition.

5.3.2. Information relating to the examination, clarification, evaluation, and recommendation for the short-listed pre-qualified Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising the Authority in relation to or matters arising out of, or concerning the Bidding Process. The Authority will treat all information, submitted as part of Proposal, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or the Authority.

5.3.3. Any effort by a Bidder to influence Authority's evaluation of Bids or award decisions will result in the rejection of the Bidder's Bid.

5.4. Proposal Evaluation

5.4.1. **Envelope 'A'** shall be opened first online at the time and date notified and its contents shall be checked. In cases where Envelope 'A' does not contain all requisite documents,

such bid shall be treated as non-responsive, and **Envelope "B" and "C"** of such bid shall not be opened.

5.4.2. In the next step of evaluation, the Envelop 'B' shall be opened online at the time and date notified. The bidder shall have freedom to witness opening of the Envelope 'B' of the Bid

5.4.3. A detailed Technical Evaluation of the responsive bids shall be carried out and the bidder shall be considered technically qualified if:

(i) The online bid has been submitted in the manner as specified in clause 4.1.

(ii) The technical proposal contains all the documents as specified in clause 3.7 (B).

(iii) Physical bid had been received by the Authority within the specified time and it contains all the documents in original and has been submitted in the manner as specified in clause 4.2.

(iv) It is fulfilling the pre- Qualification Criteria as specified in clause 2.3 and furnished all the necessary support documents in support of such qualification.

(v) It has provided all the other information and documents as directed in this RFP document corresponding to the technical qualification of the bidder.

5.4.4. **Envelope 'C'** (Financial Proposal) of bidders who are not qualified in Technical Bid **(Envelope 'B')** shall not be opened.

5.4.5. **Envelope 'C'** (Financial Proposal) of the technically qualified bidders shall be opened online at the date time & notified. The bidder shall have freedom to witness opening of the **Envelope 'C'.**

5.4.6. After opening **Envelope 'C'** the Financial proposal shall be checked for responsiveness. A Financial Proposal shall be responsive if it has been submitted in the manner as specified in clause 3.6. If the financial proposal of a bidder is non-responsive, it shall be declined from the bidding process.

5.4.7. All the responsive Financial Bids would then be ranked in ascending order of the quoted financial offer, with the Bidder quoting the lowest financial offer shall be ranked First as "L1" and the Bidder quoting the second lowest Financial offer shall be ranked Second as "L2" and so on.

5.5. Successful Bidder

5.5.1. The Bidder ranked first (the "L1") in accordance with the above procedure would be declared as the successful Bidder.

5.5.2. In the event that two or more Bidder's Financial Bids are exactly the same, then the Authority reserves the right either to:

(i) the L-1 bidder shall be decided either by obtaining spontaneous online bid from all the bidder who have quoted the same L-1 rate, which of course must be lower than their original quoted rates
or;

(ii) Take any such measure as may be deemed fit in its sole discretion, including annulment of the bidding process.

5.5.3. The Authority will notify other Bidders that their Proposals have not been accepted and their EMD will be returned as promptly as possible as per provision set out in clause 3.4 of this RFP document

5.6. Award of Contract

5.6.1. The Authority shall notify the successful bidder (the "L1") as determined in clause 5.5 above, by issuing a 'Letter of Acceptance' (LOA) that his bid has been accepted.

5.6.2. The successful Bidder shall acknowledge his acceptance of the LoA issued by the Authority within 7 (seven) days as evidenced by signing and sending a copy of the LoA issued. In the event the duplicate copy of the LoA duly signed by the Authorized signatory of the Selected Bidder is not received within the stipulated date, the Authority may, unless it consents to extension of time for submission thereof, appropriate the EMD of such Bidder on account of failure of the Selected Bidder to acknowledge the LoA.

5.7. Performance Security

5.7.1. Prior to the signing of the contract agreement, the successful Bidder shall have to furnish Performance Security to the Authority in the form of bank guarantee ("the Performance Bank Guarantee" (PBG)) issued by a nationalized / scheduled bank located in India or a reputable bank located abroad having corresponding bank in India, in the format given in Form12, for an amount equivalent to 5% of the Contract value. The performance security of a joint venture shall be in the name of the joint venture (performance Security deposit should be paid latest GRs of State Government of Maharashtra).

5.7.2. Failure of the successful bidder to comply with the requirements of clause 5.7.1 above, shall constitute a breach of contract, cause for annulment of the award, forfeiture of the EMD, and any such other remedy the Authority may take under the contract, and the Authority may resort to awarding the contract to the next ranked bidder.

5.8. Signing of Contract Agreement

5.8.1. The successful bidder shall have to furnish the Performance security as directed in clause 5.7 above and sign the contract agreement within 21 days of issue of LoA.

5.8.2. The signing of contract agreement shall be reckoned as intimation to commencement of work. No separate work order shall be issued by the Authority to the contractor for commencement of work.

5.8.3. In the event of failure of the successful bidder to submit Performance Security and or sign the Contract Agreement, his EMD shall stand forfeited without prejudice to the right of the Authority for taking action against the bidder.

5.9. Fraud and Corrupt Practices

5.9.1. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process and subsequent to the issue of the LoA and during the subsistence of the Contract Agreement. Not with standing anything to the contrary contained herein, or in the LoA or the Contract Agreement, the Authority shall reject a Bid, withdraw the LoA, or terminate the Contract Agreement, as the case may be, without being liable in any manner whatsoever to the Bidder or Contractor, as the case may be, if it determines that the Bidder or Contract, as the case may be, has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process. In such an event, the Authority shall forfeit and appropriate the EMD or Performance Security, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practices, as the case may be.

5.9.2. For the purposes of Clause 5.9.1, the following terms shall have the meaning hereinafter respectively assigned to them:

(i) **Corrupt Practice** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with the Bidding Process or the LoA or has dealt with matters concerning the Contract Agreement or arising there from, before or after the execution there of, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process) ;

or (ii) engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LoA or after the execution of the Contract Agreement, as the case may be, any person in respect of any matter relating to the Project or the LoA or the Contract Agreement, who at any time has been or is a legal, financial or technical adviser of the Authority in relation to any matter concerning the Project;

(ii) **Fraudulent practice** means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;

(iii) **Coercive practice** means impairing or harming or threatening to impair or harm, directly or indirectly any person or property to influence any person's participation or action in the Bidding Process;

(iv) **Undesirable Practice** means(i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest;

And;

(v) **Restrictive practice** means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

6. Scope of Work

The current project intends to undertake the works required for Dumpsite Land Reclamation through Bio-mining of old Dumped Municipal Solid Waste/Legacy Waste, resource recovery and scientific disposal of residual solid waste under the Amravati Municipal Corporation, Amravati. The contract shall be awarded to the successful bidder ("the contractor") for a period of 6months reckoned from the date of signing of contract agreement or the date of issue of Consent to Establish (CTE) to the project, whichever is later. The Authority shall appoint an Engineer (the "Engineer-in charge") for overall supervision, monitoring and certification of the works executed by the contractor. The brief scope of work to be carried out by the selected contractor during the execution of the intended project includes, but not limited to, the following component:

(i) The project information and Site details has been provided in Appendix 1 of this RFP document.

(ii) The works shall be carried out by the contractor as per the specifications provided in Appendix-2 to Appendix-5 and scope of works provided in this section.

(iii) The contractor shall carryout Total Station Survey of complete project site including area earmarked in which Bio-mining is to be done. Total Station Survey shall be certified by the Engineer-in-charge. And calculate exact quantity of dumped waste at site, provide flow chart of how to reclaim site. The survey shall be done at the time of possession of the site as well as at the completion of each milestone of physical progress of land reclamation at the site. The survey report shall be submitted along with each running bill. The area earmarked by Authority for Reclamation through Bio-mining shall be considered as 100% area for the scope of work.

(iv) Minimum 90% of the earmarked land to be reclaimed which is presently covered by old and new /legacy waste.

(v) The Contractor shall carry out baseline environmental survey of the site as per EMP and specification.

(vi) The Contractor shall conduct its own due diligence for site investigation, analyzing the characteristics, composition and quantum of the waste at the Project site.

(vii) Dumpsite reclamation will be done by dividing the site into suitable sectors/loops in consultation of the Engineer-in-charge based on the priority of land reclamation.

(viii) Usually the top layer has fresh waste, dust and may have several materials in the active biological state. This layer is to be stabilized through application of Bio-Culture, herbal/biological sanitizers, inoculants or through any suitable scientific method as proposed by the contractor and accepted by the Engineer-in-charge. Odor shall be controlled and minimized through application of deodorant or scientific method.

(ix) Excavating the existing mixed compacted MSW in the land portion allocated/earmarked by the Authority and sieving them by Mechanical sieving machine or any other suitable technology proposed and accepted by the Engineer-in-charge.

(x) The contractor shall deploy sufficient machinery, manpower and required resources to execute the project scope within the project duration.

(xi) Provision, installation, operation and maintenance of plant, machineries, infrastructure

facilities and amenities for excavation, sieving of the excavated MSW, storing the segregated materials, reuse, marketing, selling, and transporting them from the project site.

(xii) Construction of temporary shed, platform and creation of facilities for handling, separating, segregating, storing and quantifying of the excavated MSW and processing material.

(xiii) Excavating the soil which lost its stability due to MSW dumping with necessary dewatering works in the portion of the land earmarked at the cost of the Contractor.

(xiv) MSW waste brought for segregation and processing from the earmarked land portion shall be quantified (in Cubic meter, based on number of vehicles trips and capacity) after excavation and record of the same shall be maintained by the Contractor and Authority jointly.

(xv) Segregate the excavated MSW in the land portion earmarked into as many kinds and categories as possible of Useful Material such as compost, soil conditioner, recyclables, raw RDF, filler material (Soil, C&D) and Un-useful material such as residual Solid Waste.

(xvi) Packing, storing, stacking, selling, diverting for recycling, marketing and recycling of all Useful Material within thirty days of segregation at the cost of the Contractor, without accumulation in the storage facility at the project site beyond thirty days.

(xvii) Baling, packing, stacking, storing and sale of non-recyclable fraction of high calorific as raw material to RDF producer/ user or sale to waste to energy or co-processing in cement plants or to thermal power plants.

(xviii) Stacking, transporting, spreading and compacting the segregated C&D, Soil and Inert as filler material in low level and depression area within the site and prepare well compacted and clear ground for proposed development at site or disposing such material in the low level area or quarry area designated by the Authority with statutory approval at the cost of the Contractor with proper compliance to the statutory requirements.

(xix) The revenue or the income from the sale of the segregated Useful Material such as reusable and recyclable, Compost, soil conditioner, raw RDF, C&D, Soil or any other by-product materials shall go to the contractors account. However, before selling the recovered material the Contractor, at its own cost, will conduct a lab testing of such materials from an NABL accredited lab, for the parameters as recommended by the Engineer-in-charge or applicable rules/guidelines, and submit the report of the same to the Engineer-in-charge. The contractor

shall initiate the sale or disposal process of such material by-products only after the acceptance/approval of the engineer-in-charge.

(xx) The Contractor shall hand over reclaimed land and scientific residual solid waste disposal site to the Authority in a good and acceptable condition as per SWM Rules 2016.

(xxi) The Contractor Shall be responsible for procuring necessary approvals from Component authority.

(xxii) Record of the residual solid waste disposal quantity (in Cubic meter, based on number of vehicles trips and capacity) shall be maintained by the Contractor and the Authority jointly.

(xxiii) Carrying out the entire project work in accordance with the Detailed Plan of Action and schedule proposed by Bidder and approved by the Authority at the cost of the Contractor.

(xxiv) Using only covered body vehicles for the transportation of materials at the cost of the Contractor.

(xxv) Apply method, process, equipment and resources which would reduce the impact of dumpsite reclamation activity in the adjacent areas.

(xxvi) Create facilities and make arrangements for controlling/ mitigating the emission, pollution and contamination (Environment impact) including air, water and soil including mitigation for of dust, odor and noise pollution at the cost of the Contractor.

(xxvii) Construction of temporary site office, water, power, sanitation facilities and accommodation facilities of workers for the Project as per statutory standards at the cost of the Contractor.

(xxviii) Providing security arrangement for the project site, machineries, equipment etc. at its own cost.

(xxix) Completing the work within the Contract Period.

7. Payment Schedule

7.1. Payment Mechanism

7.1.1. The Authority will be releasing payment for the work based on the percentage of proposed land (90% of the earmarked land by the Authority)to be reclaimed as per the achievement of the milestone mentioned in the table below:

Milestone	**Physical Progress**	**Time of Completion (will change based on quantity/area of legacy waste)**	**Broad Parameters of Physical Progress**	**% release of Contract Value**
First Milestone	40% of the proposed land to be reclaimed	2Months (to be changed by ULB based on quantity of waste/time required)	• 40% of the proposed land to be reclaimed	30%
Second Milestone	30% of the proposed land to be reclaimed	2Months (to be changed by ULB based on quantity of waste/time required)	• Cumulative 70% of the proposed land to be reclaimed	30%
Third Milestone	20% of the proposed land to be reclaimed	2 Months (to be changed by ULB based on quantity of waste/time required)	• Cumulative 100% of the proposed land to be reclaimed	40%

(Processing fee payment Interval= 30%, 30% &40 % respectively based on Physical progress as per clause 7.1.1 minus liquidated damage as per clause 7.2 and penalty for non-compliance as per clause 7.3)

7.1.2. The Contractor shall, on completion of the particular Milestone of the work, before the 20th (twentieth) day of the Month or in case the 20th (twentieth) day of a Month is a holiday then on the following working day of such Month, submit to the Authority a statement ("the Running Bill") providing the following details:

(i) Amount of Processing Fee for the completed milestone calculated in accordance with Clause 7.1.1

(ii) Items of Work Completed at site including photographic evidence of the same

(iii) Certificate from the Engineer-in-charge certifying the work done and milestone achieved.

(iv) Details of the employment of Man-hours, Machinery and equipment utilized to achieve the physical progress of that Milestone.

7.1.3. The Authority shall not pay interest on the bill amount, if delay occurs in the release of the payment, for any reason whatsoever.

7.2. Liquidated Damage

7.2.1. In case the work is not completed within the stipulated period of completion of whole or part of work (achievement of milestones specified by authority) along with all such extensions which are granted to the Contractor for either Authority's default or Force Majeure, the compensation shall be levied on the contractor at the rate of 0.05% of the contract amount per day of delay limited to maximum of 10% of contract amount.

7.2.2. The Authority will deduct the liquidated damages from payments due to the Contractor.

7.2.3. If the liquidated damage attains to a maximum of 10% of the contract amount the authority may:

(i) Terminate the contract agreement and forfeit the EMD and the Performance Security.

(ii) Retain the contractor on depositing the amount equivalent to the such liquidity damage of 10% of the contract amount. However, the retention of the contractor on such ground shall not free him from his liabilities for completion of the work or any future imposition of liquidity damages.

7.2.4. The decision of the Authority in this regard shall be final and binding upon both the parties.

7.3. Penalty for Non-Compliance

Sr. No.	Penalty Description	Penalty Amount
1.	Non-Compliance to, SWM Rules 2016 and other Environmental Standards notified by regulatory authorities or as specified in the Contract.	Rs. 1000/- per Incidence per day till the compliance of the failure in addition to the Penalties/ Actions imposed by various authorities.
2.	Non provision of 1. Site Facilities as per specifications	Rs. 500/- per item per day
3.	Non-compliance of Safety Standards, use of Personal Protective Equipment by the workers	Rs.500/- per Incidence per day till the compliance of the failure in addition to the Penalties/ Actions imposed by various authorities.

8. Miscellaneous

The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at AMRAVATI (M.S) shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process. The AUTHORITY, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to:

(i) Suspend and/or cancel the Bidding Process and/ or amend and/ or supplement the Bidding

Process or modify the dates or other terms and conditions relating thereto;

(ii) Consult with any Bidder in order to receive clarification or further information including justification of financial bid submitted;

(iii) Retain any information and/ or evidence submitted to the AUTHORITY by, on behalf of, and/or in relation to any Bidder; and/ or

(iv) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.

(v) It shall be deemed that by submitting the Bid, the Bidder agrees and releases the Authority, it employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection herewith and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or future.

Forms for Technical Bid Submission

Form 1: Letter Comprising the Bid cum undertaking

(On Non-Judicial Stamp of Rs.100)

Date:

To,

THE COMMISSIONER,

_____

_____,

_____,

_____,

Dear Sir,

Sub: RFP Reference No._____dated_____for Selection of Contractor to execute the work of Bio-mining of old dump site at Sukali Compost Depot, Amravati.

With reference to your RFP document dated……., I/we, have examined the Bidding Documents and understood their contents, hereby submit my/our Bid for the aforesaid Project "**Selection of Contractor for execute the work of Bio-mining of old dump site, Sukali Compost Depot, AMRAVATI"** and state as under:

1. The Bid is unconditional and unqualified.

2. All information provided in the Bid and in the Appendices is true and correct.

3. This statement is made for the express purpose of qualifying as a Bidder for the Project as explained in this RFP document.

4. I/We shall make available to the Authority for any additional information it may find necessary or require to supplement or authenticate the Bid.

5. I/We acknowledge the right of the Authority to reject our Bid with out assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.

6. We certify that in the last three years, we/ any of the Consortium Members have neither failed to perform on any contract, as evidenced by judicial pronouncement or arbitration award, nor been expelled from any project or contract nor have had any contract terminated for breach on our part.

7. I/We declare that:
   a. I/We have examined and have no reservations to the Bidding Documents, including any Addendum issued by the Authority.

   b. I/We do not have any conflict of interest in accordance with Clauses 2.10 of the RFP

document.

c. I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprise or any government, Centre or State; and

d. I/We here by certify that we have taken steps to ensure that in conformity with the provisions of Clause 5.9 of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

8. I/ We understand that you may cancel the Bidding Process at any time and that you are neither bound to accept any Bid that you may receive nor to invite the Bidders to Bid for the Project, without incurring any liability to Bidders

9. I/We believe that we/ our consortium/proposed consortium satisfy (ies) the pre-qualifying criteria and meet(s) the requirements as specified in the RFP document and am/are qualified to submit this Bid.

10. I/We declare that we/any Member of the Consortium am/are not a Member of any other Consortium submitting a Bid for the Project.

11. I/We certify that we have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that out rages the moral sense of the community.

12. I/ We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.

13. I/We undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the guidelines referred to above, we shall intimate the Authority of the same immediately.

14. We acknowledge that our Consortium/ proposed Consortium shall bear the following composition:

    a Lead Member: M/s…….

    b Technical member: M/s…….

And we further undertake that above consortium composition shall be maintained till the end of this contract period or extension thereof. We further acknowledge that the lead member takes the full responsibility towards execution of the project and the terms and condition laid down in the contract agreement. *(Individual Bidder to strike out this point).*

15. I/We here by irrevocably waive any right which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority in

connection with the selection of the Bidder, or in connection with the Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.

16. In the event of my/our being declared as the Selected Bidder, I/We agree to enter into a Contract Agreement in accordance with the draft that has been provided to me/us prior to the Bid Due Date. We agree not to seek any changes in the afore said draft and agree to a bid by the same.

17. I/We have studied all the Bidding Documents carefully and also surveyed the project area. We understand that except to the extent as expressly set for thin the Contract Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the Authority or in respect of any matter arising out of or concerning or relating to the Bidding Process including the award of Contract.

18. The Financial Bid has been quoted by me/us after taking into consideration all the terms and conditions stated in the RFP and draft Contract Agreement, our own estimates of costs and careful assessment of the site and all the prevailing and expected conditions that may affect the Bid.

19. I/We offer to the Authority a Bid Document Fees of INR ---------- (INR ----------) and EMD of INR----------) submitted online through the website "www.mahatender.gov.in"as specified in this RFP document.

20. I/We agree and understand that the Bid is subject to the provisions of the Bidding Documents. In no case, I/We shall have any claim or right of whatsoever nature if the Project/ Contract is not awarded to me/us or our Bid is not opened.

21. I/We hereby submit our Bid in the form as specified in the RFP document for undertaking the aforesaid Project in accordance with the Bidding Documents and the Contract Agreement.

22. I/We agree to keep this offer valid for 180 (One Hundred Eighty) days from the Due Date of online Bid submission as specified in the RFP document or any other such duration as directed by the Authority.

23. I/We agree and undertake to abide by all the terms and conditions of the RFP document. In witness thereof, I/we submit this Bid under and in accordance with the terms of the RFP document.

24. I/we have received all the clarifications issued by the Authority.

25. I/we will abide by the terms and condition set forth in the RFP document, condition of contract and draft Contract agreement and a copy of the same bearing initial of the undersign on every page is attached herewith.

26. Notwithstanding any qualification or conditions, whether implied or otherwise, contained in our Proposal we hereby represent and confirm that our Proposal is unqualified and

unconditional in all respects.

Yours faithfully,

Date:

(Signature of the Authorized signatory)

Place:

(Name and designation of the Authorized signatory)

Name and Seal of Bidder/Lead Firm

Form 2: Format for Description of Bidder

S.No.	Particulars	Details

		Individual Bidder Company (1)	**Lead Member of Consortium (2)**	**Technical Member of Consortium (3)**
1.	Name of the Bidding company			
2.	Date of incorporation and /or Commencement of Business			
3.	Brief description of the Bidder's main line of business			
4.	Details of individual (s) who will serve as the point of contact/ communication for Authority with the Bidder:			
a.	Name			
b.	Designation			
c.	Company/Firm			
d.	Address:			
e.	Mobile Number			
f.	Email Address			
g.	Fax Number			
5.	Details of Authorized Signatory of Bidder			
a.	Name			
b.	Designation			
c.	Company/Firm			
d.	Address:			
e.	Mobile Number			
f.	Email Address			
g.	Fax Number			

Note:

Column '1' to be filled by the Individual Bidder and Column '2' & '3' to be filled by the respective members of the consortium

Form 3: Power of Attorney for Signing of Bid

Know all men by these presents, we, _____(name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. _____(Name), son/daughter/wife of _____ and presently residing at _____who is presently employed with us/ the Lead Member of our Consortium and holding the position of _____, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and our behalf , all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our bid for the *[*Scientific Dumpsite Land Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati.*]*Project proposed or being developed by the Amravati Municipal Corporation (the "AUTHORITY") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders' and other meetings and providing information/ responses to the AUTHORITY, representing us in all matters before the AUTHORITY, signing and execution of all contracts including the Contract Agreement and undertaking consequent to acceptance of our bid, and generally dealing with the AUTHORITY in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/ or till the entering into of the Contract Agreement with the AUTHORITY.

AND we here by agree to ratify and confirm and do here by ratify and confirm all acts, deeds and things law fully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the power shear by conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHERE OF WE, _____, THE ABOVE NAME DPR IN CIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS_____DAY OF _____, 2018.

For_____

(Signature)

(Name, Title and Address)

Witnesses:

Accepted [Notarized]

(Signature)

(Name, Title and Address of the Attorney)

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a resolution/power of attorney in favor of the person executing this Power of Attorney for the delegation of power here under on behalf of the Bidder.*
- *To be executed on aStampPaperofRs.100/-,duly notarized.*

Form 4: Power of Attorney for Lead Member of Consortium

Whereas the _____ has invited bids for the Project titled [Project Name] ("the Project").

Whereas, M/S _____ and M/S _____(Collectively "the Consortium") Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal(RFP) and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

We, M/S_____having our registered office at _____ and, M/s._____ _____, having our registered office at_____, [the respective names and addresses of the Consortium members] (Collectively referred to as Consortium), constitute, appoint and authorize M/s_____, having its registered office at_____, being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (herein after referred to as "Attorney") and hereby irrevocably authorize the Attorney(with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders and other meetings, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the Authority, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the consortium's bid for the Project and/or upon award thereof till the Contract Agreement is entered into with the Authority. AND here by agree to ratify and confirm and do here by ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers here by conferred shall and shall always be deemed to have been done by us/

Consortium.

IN WITNESS WHERE OF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS_____DAY OF_____. For _____

(Name & Title)

For_____

(Name & Title)

For_____

(Executants)

(To be executed by all the Members of the Consortium)

Witnesses:

1.

2.

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as are solution/ power of attorney in favor of the person executing this Power of Attorney for the delegation of power here under on behalf of the Bidder.*
- *To be executed on a Stamp Paper of Rs.100/-duly notarized.*

Form 5: Format for Consortium/Joint Venture Agreement

PERFORMA FOR CONSORTIUM/JOINT VENTURE AGREEMENT BETWEEN M/s_____ and M/s_____In mention for Bid No. _____of_____ for the work of _____

The Joint Venture Agreement executed on this day of between M/S _____a company underthe Laws of Company Act, 1956 and having its registered office at_____and Corporate Office at (herein after called the LEAD PARTNER, which expression shall include its successors, Executers and permitted Assigns)AND M/s_____a company having its registered office at(herein after called as TECHNICAL PARTNER, which expression shall include its successors, Executors and permitted Assigns)for the purpose of making a Bid and entering into a contract (in case of award) for "_____

Works for" Tender No. of _____, _____ (herein after called as the Authority).

WHEREAS, the Authority Invited Bids as per above mentioned tender Document for the "_____"

WHEREAS in accordance with Instruction to Bidders of the Tender Specification. A Bidder may be a private entity or a government-owned entity or any combination of such entities with the intent to enter into an agreement supported by a letter of intent or under an agreement in the form of a consortium or Joint Venture

NOW THIS INDENTURE WITNESSETH AS UNDER

In consideration of the above premises and agreements all the partners to this Consortium/Joint Venture do hereby now agree as follows:

1. In consideration of the award of the Contract by the Authority to the Consortium/Joint Venture partners, we, the Partners to the Consortium/Joint Venture Agreement do hereby agree that M/s_____shall act as LEAD PARTNER and further declare and confirm that we shall jointly be bound unto the Authority for the successful performance of the Contract and shall be fully responsible for the works in terms of quality requirements and timeliness in performance in accordance with the Contract. Irrespective of Joint responsibility, it is expressly understood that LEAD PARTNER will be present at the site of the works, through its authorized representative at all times and play lead role in mobilizing resources and execution of the contract. The LEAD PARTNER will incur liabilities and receive instructions for and on behalf of any or all partners of the Consortium/Joint Venture and entire execution of the contract shall be done by the LEAD PARTNER and will be the sole responsibility of the lead partner of the consortium and payment under the contract shall be received by the LEAD PARTNER. The precise responsibility of the members of the Joint Venture in respect of planning, quality,

execution of the works is as under *(Provide Roles of Each Member of Consortium/Joint Venture):*

LEAD PARTNER:

TECHNICAL PARTNER:

If in the determination of the Authority that the LEAD PARTNER is unable to fulfill its responsibility as above, the Authority shall be at liberty to terminate the contract which shall be binding on all partners of the Joint Venture.

2. In case of any breach of the said Contract by the LEAD PARTNER or Technical Partners of the Consortium/Joint Venture Agreement, the Partner(s) do hereby agree to be fully responsible for the successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.

3. Further, if the Authority suffers any loss or damage on account of any breach in the Contract or any shortfall in meeting the performance guaranteed as per the works Contract, the Partner(s) of these presents undertake to promptly make good such loss or damages caused to the Authority, on its demands without any demur. It shall not be necessary or obligatory for the Authority to proceed against LEAD PARTNER to these presents before proceeding against or dealing with other Partner(s).

4. The financial liability of the Partners of this Consortium/Joint Venture agreement to the Authority, with respect to any of the claims arising out of the performance or non-performance of the obligations set forth in the said Consortium/Joint Venture Agreement, read in conjunction with the relevant conditions of the Contract shall, however, not be limited in any way so as to restrict or limit the liabilities of any of the Partners of the Joint Venture agreement.

5. It is expressly understood and agreed between the Partners to this Consortium/Joint Venture agreement that the responsibilities and obligations of each of the Partners has been delineated in clause no. 1 herein above to this agreement. It is further agreed by the Partners that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint responsibilities of the Partners under this Contract.

6. This Consortium/Joint Venture Agreement shall be construed and interpreted in accordance with the laws of India, courts of _____, Maharashtra shall have the exclusive jurisdiction in all matters arising there under.

7. It is further agreed that the Consortium/Joint Venture agreement shall be irrevocable and shall form an integral part of the contract, and shall continue to be enforceable till the Authority discharges the same. It shall be effective from the date first mentioned above for all purposes and intents.

IN WITNESS WHEREOF, the Partners to the Consortium/Joint Venture Agreement have through their Authorized Representatives executed these presents and affixed Common Seals of their companies, on the day, month and year first mentioned above.

[Name, Signature of all Joint Venture Partners]

[Name and Signature of Witnesses]

Form 6: Form for Financial Pre-Qualification

A. **Turnover**

Financial Year	**Annual Turnover (in INR)**
Year1	
Year2	
Year3	
Average Turnover	

B. **Net Worth asonYear1 (Financial Year preceding to Due date of Bidding):INR** _____

Note:

1. *The financial year shall mean the period commencing from April 1 of any given year to March 31 of the succeeding year.*

2. *The Bidder shall provide the Audited Annual Financial Statements of the corresponding years. Failure to do so would result in the Proposal being considered as non-responsive. In case the annual accounts for the latest financial year are not audited and therefore can not make it available, the applicant shall give an undertaking, to this effect and the statutory auditor shall certify the same. In such case, the applicant shall provide the audited annual reports for five years preceding the year for which audited annual report is not being provided.*

3. *A certificate from Statutory Auditor should be provided as supporting document certifying the Financial Pre-Qualification.*

(Signature of the Authorized signatory)

Form 7: Format for Banker's Certificate

To,
The Commissioner,
_____
_____
_____
_____

Dear Sir/Madam,

Ref: Request for Proposal issued by the _____ dated_____

Sub: **RFP Reference No._____dated_____for Selection of Contractor to** _____ *(Name of Work)*

This is to certify that M/s. _____* is a reputed company with a good financial standing. If the contract for this work _____ *(Name of Work)*, is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. …… to meet the working capital requirements for executing the above contract

Sd./
Senior Bank Manager
Name of Bank
Address
Contact No.

***Change the text as follows for Joint venture:**

This is to certify that M/s *(Name of Lead Member)* who has formed a Consortium/Joint Venture with M/s_____ *(Name of Technical Member)* is a reputed company with a good financial standing. If the contract for this work to _____ *(Name of Work)*, is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. …… to meet the working capital requirements for executing the above contract

Sd./
Senior Bank Manager
Name of Bank
Address

Contact No.

Form 8: Format for summary of Technical Pre-Qualification

(List only those works, which are similar to the proposed works for which the Qualification Information is submitted)

A. Summary Table

Name of Applicant/Member of Consortium (in case of consortium) Claiming the Project Experience: _____							
S. No.	**Brief Project Description**	**Project Award Date** *(Only those Project(s)awarded in preceding 5 FY from due date of bidding shall be considered*	**Project Completion Date/ expected completion date**	**Project Cost in INR (Cr)**	**Project Capacity (M^3/ MT) (A)**	**Claiming Entity's Share in the Project (%) (B)**	**Effective Handled Capacity A x B (c) (M^3/ MT)**

B. Average Project Capacity (As per column 'C') of eligible projects handled (as mentioned in summary table above is _____ (m^3/ MT)

1. *The details of each of the works mentioned in the above table must be provided separately in Form 8 (A).*
2. *Use a separate sheet for each member in case of a consortium.*
3. *Provide attested copies of Work Orders and Completion Certificates for each project. Work orders/ testimonials will be verified if required.*
4. *Each certificate of experience will be duly signed/ confirmed by a representative of the client.*

Form 8(A): Details of Projects eligible for Technical Pre-Qualification

(Provide Details for Only those Projects listed in Form 8, use separate sheet for each project)

Name of Applicant/Member of Consortium (In case of Consortium) Claiming the Project Experience : _____	
1.	Name of Project
2.	Location of Project
3.	Name of the Client
4.	Client's Address & Telephone Number, Fax Number and e mail ID of contact person
5.	Project Cost (in INR Cr)
6.	Nature of works and special features relevant to this project. (Details pertinent to the Technical Criteria of this RFP shall be submitted)
7.	Contract role (check one) 1. Sole Contractor 2. Consortium/Joint Venture 3. Sub-Contractor
8.	a) Project Capacity: b) Your Company's share in the Project (%):
9.	Date of Award
10.	Contract duration _____ years_____ Months
11.	Date of Completion
12.	Whether Completed in specified duration, If No, reason for delay
13.	Specified requirements
14.	Name and professional qualifications of applicant's Engineer-in-Charge of the work:
15.	Were there any penalties/fines/stop-notice/compensation/liquidated damages imposed? (Yes or No). If yes, give amount and explanation.

Form 9: Format for Submitting Dumpsite Reclamation and Gas/ Leachate Management Plan

The Bidder will submit a Dumpsite Reclamation, Gas and Leachate Management Plan covering the following topic:

1. Dumpsite land reclamation: Present the proposed Site layout development, land reclamation sequence on layout drawing, general arrangement of machineries, screening, sorting, storing, packing areas.
2. Excavation, Screening & Resource Recovery: Indicate number, type and capacity of equipment's/machinery to be deployed for the purpose of excavation, segregating, sorting, retrieving recoverable materials, storing, baling, packing, selling, provide the basis for deciding the number and justify the time period estimated for the activity and operation and maintenance details.
3. Bio-mining of un-processed municipal solid waste: Specify the proposed method in detailed, quantity of resources required, provide the basis for deciding the quantity of resources, number and justify the time period estimated for the activity and operation and maintenance details.
4. Development of facility for Scientific disposal of residual Solid Waste: Detail the proposed method and quality control protocol for laying various landfill liner layers, quantities of materials, equipment/ machinery proposed to be deployed and justification of the proposed to facility and scientific rejects disposal/ backfill in facility operation and maintenance details.

5. Leachate collection, treatment system and surface water drainage works: Present leachate collection system and surface water drainage system including the alignment, treatment, disposal locations and invert levels

All of the above should be suitably supported with the engineering drawings, manpower requirement, fuel/ power requirement and explanation of estimated time schedule.

Based on the above work requirement, the Bidder will provide details of plant, machinery and equipment proposed to be deployed in the works in the format 9(A)

The Bidder shall also provide a list of key personnel proposed to be deployed for the work with their curriculum mention in the Format Provided in Form 9 (B)

Form 9 (A): Format for Providing Details of Machinery to be deployed for the Project

Name of the bidding company/Consortium members' company owning the Machinery/Equipment_____					
Item of Equipment Including Make	Number and Capacity	Ownership Status		Age and Condition	Remarks Regarding Condition/Source/ Availability
		Owned/ Leased/ to be Procured	Number & Capacity		

Note:

1. *List only the key equipment for construction, standby power, material handling and vehicles for site, etc., which the Company proposes to use for the proposed works at the site.*

2. *The applicant should clearly demonstrate that he has access to all key equipment which will be required for the successful completion of the works.*

Form 9 (B): Details of Key Personnel to be deployed for the Project

(Use separate Sheet for each key personnel)

Name of Bidder Company/Consortium members' company *(in case of consortium)*:			
Proposed Position			
Key Personnel Information	1. Name 2. Date of Birth 3. Contact Number 4. Professional Qualification 5. Current Designation 6. Years With Present Employer		
Experience Summary Relevant to this Project			
Professional Experience over the last 10 Years *(in chronological order)*	From	To	Company/Project/Position/Relevant Technical and Management Experience

Form 10: Format for Providing Environment, Health and Safety Management Plan

The Bidder shall furnish a brief write-up of the following points:

1. Plan for Mitigation of Pollution during Project Execution work
2. Measures to manage hazardous waste if any during the project execution
3. Plan for Health and safety in and around the workplace to be followed during project execution
4. Emergency preparedness plan
5. Measures for Fire safety.
6. Measures for Health and safety of workers.
7. Envoi mental clearance from authorizes authority.

Form 11: Format for Letter of Acceptance (LoA)

LETTER OF ACCEPTANCE (LOA)

(On the Letter Head of the Authority)

Date:

M/s. _____

(Name and address of the contractor)

Subject: _____

(Name of the work as appearing in the bid for the work)

Dear Sir (s)/ Madam(s),

Your bid for the work mentioned above has been accepted on behalf of the *(Name of Authority*), at your bided offer as per scope of work given therein. You are requested to submit within 21 (Twenty-One) days from the date of issue of this letter:

(i) The performance security/performance guarantee of Rs. _____ (in figures) Rupees _____ (in words only). The performance security shall be in the form of bank guarantee of any nationalized / schedule commercial bank.

(ii) Sign the Contract Agreement.

Please note that the time allowed for carrying out the work as entered in the bid is 6 months including rainy season, shall be reckoned from the date of signing the contract agreement or issuance of Consent to Establish to the project whichever is later.

Signing the contract agreement shall be reckoned as intimation to commencement of work and no separate letter for commencement of work is required. Therefore, after signing of the agreement, you are directed to contact Authority/Engineer-in-charge for taking the possession of site and necessary instructions to start the work.

Yours faithfully,

Form 12: Format for Performance Bank Guarantee

To:

_____ *[the Authority]* _____ *[address of the Authority]* WHEREAS _____ *[name and address of Contractor]*(hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____dated _____ to execute _____ *[name of Contract and brief description of Works]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified there in as security for compliance with his obligations in accordance with the Contract; AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ *[amount of guarantee]* _____ *[in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified there in. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. This guarantee shall be valid until …… (*date of Validity as per the Bid Document)*

Signature and seal of the guarantor _____
Name of Bank _____
Address _____
Date _____

Form 13: Format for Retention Security Deposit Bank Guarantee (SBG)

To: _____ [the Authority]_____ [address of the Authority]WHEREAS _____ [name and address of Contractor](hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract Clause No. 7.2 that the Contractor shall furnish you with a Security Bank Guarantee (SBG) by a recognized bank for the sum specified there in as security for compliance with his obligations in accordance with the Contract;

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

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ [amount of guarantee] _____ [in words], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified there in. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.
This guarantee shall be valid until _____days *(Validity Period as per sub-Clause 7.2.4*)

Signature and seal of the guarantor _____
Name of Bank _____
Address _____
Date _____

Format of Financial Bid

Name of Work: _____

I/We do hereby BID to execution of the above work within the time specified at the rate _____ (In figures) _____ (In words) in all respects and in accordance with the specifications, designs, drawings and instructions in writing in all respects in accordance with such conditions so far as applicable. I/We have visited the site of work and am/are fully aware of all the difficulties and conditions likely to affect carrying out the work. I/We have fully acquainted myself/ourselves about the conditions in regard to accessibility of site and quarries/kilns, nature and the extent of ground, working conditions including stacking of materials, installation of tools and plant conditions effecting accommodation and movement of labor etc. required for the satisfactory execution of contract.

Should this bid be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract so far as applicable, or in default thereof to forfeit and pay to the Chief executive officer, _____ or his successors in office the sums of money mentioned in the said conditions.

Signature of Bidder Name of Bidder

Volume II- Draft Contract Agreement Format

Draft Contract Agreement Format

This agreement, made the_____day of 20_____ ,between the Amravati Municipal Corporation [name and address of the Amravati Municipal Corporation] (Hereinafter called as "the Authority") of the one-part M/S _____and[name and address of contractor] (hereinafter called "the Contractor") of the second part.

Whereas the Authority is desirous that the Contractor execute _____ [name and identification number of Contract] (hereinafter called "the Works") and the Authority has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects there in, at a contract price of INR _____.

NOW THIS AGREEMENT WITNESSETH as follows:

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

2. In consideration of the payments to be made by the Authority to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Authority to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.

3. The Authority hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein 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.

4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
   i. Letter of Acceptance;
   ii. Notice Inviting Bid;
   iii. Bid Document issued by the Amravati Municipal Corporation and its subsequent amendments and corrigendum

iv. Contractor's Bid;

v. Conditions of contract (including Special Conditions of Contract);

vi. Specifications;

vii. Drawings and Site Map;

viii. Any other document listed in the Condition of Contract forming part of the contract.

In witness whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____ was here unto affixed in the presence of:

Signed, Sealed and Delivered by the said

In the presence of:

Binding Signature of Authority

Binding Signature of Contractor (To be signed by the Authorized Signatory of the Bidder)

**********END OF DRAFT CONTRACT AGREEMENT**********

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Conditions of Contract

A. General Conditions of Contract (GCC)

1. Definitions

"**Authority**" means The Commissioner, of the Amravati Municipal Authority who will execute the contract agreement with the Contractor to carry out the work. The Authority may delegate any or all functions to a person or body nominated by him for specified functions. The word Authority/Government/Department wherever used denotes the Authority.

"**Completion**" means completion of the work, as certified by the Engineer-in-Charge, in accordance with provisions of agreement.

"**Contract**" means the Contract between the Authority and the Contractor to execute, complete and/or maintain the work. Agreement is synonym of Contract and carries the same meaning wherever used.

"**Contractor** "means a person, or a legal entity whose bid to carry out the work has been accepted by the Authority.

"**Contractor's bid**" means the completed bid document submitted by the Contractor to the Authority.

"**Contract amount**" means the amount of contract worked out on the basis of accepted bid.

"**Completion of work**" means completion of the entire contracted work. Exhaustion of quantity of any particular item mentioned in the bid document shall not imply completion of work or any component thereof.

"**Day**" means the calendar day.

"**Defect**" means any part of the work not completed in accordance with the specifications included in the contract.

"**Drawings**" means drawings including calculations and other information provided or approved by the Engineer-in-Charge.

"**Department**" means the Amravati Municipal Corporation or as specified.

"**Engineer in charge**" means the person nominated by the Authority for overall supervision and coordination of the work, provide approval to work plan and work schedules submitted by the contractor for commencement of the work, approval of drawings and specification, certification of the work executed by the contractor and invoice raised by the contractor. The Word “Engineer” wherever used, other than mentioned or specified, means the Engineer-in—charge

"**Equipment**" means the Contractor's machinery and vehicles brought temporarily to the Site for execution of work at his own cost.

"**Government**" means the Government of Maharashtra or the Government of India as the case may be.

"**In Writing**" means communicated in written form and delivered against receipt.

"**Material**" means all supplies including consumables used by the Contractor for incorporation in the work.

"**Stipulated date of completion**" means the date on which the Contractor is required to complete the work. The stipulated date is specified in the Contract Data.

"**Specification**" means the specification of the work included in the Contract and any modification or addition made or approved by the Engineer-in-Charge.

"**Start Date**" means the date 14 days after the signing of agreement for the work. However, the Authority may extend this time limit by another 14 days, as and when required.

"**Sub-Contractor**" means a person or corporate body who has a Contract (duly authorized by the Authority) with the Contractor to carry out a part of the work under the Contract.

"**Temporary Work**" means work designed, constructed, installed, and removed by the Contractor that are needed for the work.

"**Tender/Bid/Bid Document/Request for Proposal (RFP), Tenderer/Bidder**" are the synonyms and carry the same meaning where ever used.

"**Variation**" means any change in the work which is instructed or approved as variation under this contract.

"**Work**" the expression "**work**" or "**works**" **or "Project"** where used in these conditions shall unless there be something either in the subject or context repugnant to such work, be construed and taken to mean the work by virtue of contract, contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional.

"**Work Plan**" means the implementation plan, including phasing of works, physical completion milestones and other such details that the Authority shall seek from time to time with respect to tracking progress of the works.

2. Interpretations

In the contract, except where the context requires otherwise

2.1. Words indicating one gender include all genders;

2.2. Words indicating the singular also include the plural and vice versa;

2.3. Provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;

2.4. Written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record; Words have their normal meaning under the language of the Contract unless specifically defined.

2.5. The Engineer will provide instructions clarifying queries about the Conditions of Contract.

3. Documents Forming Part of Contract:

3.1. Notice Inviting Bid with all amendments.

3.2. Tender Document (Tender Notice No. –)with all amendments and corrigendum

3.3. Contract Agreement

3.4. Conditions of Contract:

a) Part A: General Conditions of Contract and Contract Data with all Annexures;

b) Part B: Special Conditions of Contract.

3.5. Specifications;

3.6. Drawings and site map

3.7. Technical and Financial Bid submitted by the Contractor

3.8. Any other document (s), as specified or important to execute this contract.

4. Language and Law

The language of the Contract and the law governing the Contract are stated in these conditions of contract.

5. Communications

All certificates, notice or instruction to be given to the Contractor by Authority/Engineer shall be sent on the address or contact details given by the Contractor in Form 2 of his submitted Bid. The address and contract details for communication with the Authority/Engineer shall be as per the details given in bid data sheet of the RFP Document or as specified in written from time to time. Communication between parties that are referred to in the conditions shall be in writing. The notice sent by facsimile (fax) or other electronic means (email) shall also be effective on confirmation of the transmission. The notice sent by registered post or speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service. In case of any change in address for communication, the same shall be immediately notified to Engineer-in-Charge.

6. Engineer's Decisions

6.1. Except where otherwise specifically stated, the Engineer under the guidance of The Commissioner, Municipal Corporation, and Amravati will decide contractual matters between the Authority and the Contractor in the role representing the Authority.

6.2. The Engineer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

7. Subcontracting

The Contractor may subcontract with the approval of the authority but may not assign the Contract without the approval of the Authority in writing. Subcontracting does not alter the Contractor's obligations.

8. Personnel

8.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel in the Form 9 (B) of his submitted technical bid to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

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

9. Force Majeure

9.1. The term "Force Majeure" means an exceptional event or circumstance:

a) Which is beyond a party's control;

b) Which such party could not reasonably have provided against before entering into the contract;

c) Which, having arisen, such party could not reasonably have avoided or overcome, and;

d) Which is not substantially attributed to the other Party

9.2. Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) in the sub-clause 9.1 above, are satisfied:

(i) War, hostilities (whether war be declared or not), invasion, act of foreign enemies);

(ii) Rebellion, terrorism, sabotage by persons other than the contractor's Personnel, revolution, insurrection, military or usurped power, or civil war;

(iii) Riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel;

(iv) Munitions of war, explosive materials, ionizing radiation or contamination by radio activity, except ass may be attributed to the Contractor's use of such munitions, explosives, radiation or radio activity, and;

(v) Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

9.3. In the event of either party being rendered unable by force majeure to perform any duty or discharge any responsibility arising out of the contract, the relative obligation of the party affected by such force majeure shall upon notification to the other party be suspended for

the period during which force majeure event lasts. The cost and loss sustained by either party shall be borne by respective parties.

9.4. For the period of extension granted to the Contractor due to Force Majeure the penalty clause shall not apply. It is clarified that the clause '9' shall not give eligibility for any adjustment or escalation in contract amount.

9.5. The time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such cause lasts. Should the delay caused by force majeure exceed six months, the parties to the contract shall be at liberty to foreclose the contract after holding mutual discussions.

10. Contractor's Risks

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

10.2. All risks and consequences arising from the inaccuracies or falseness of the documents and/or information submitted by the contractor shall be the responsibility of the Contractor alone, notwithstanding the fact that designs/drawings or other documents have been approved by the department.

11. Safety

The Contractor shall be responsible for the safety of all activities on the Site. The contractor shall comply to the safety guidelines and best industrial practice to implement safety at work place.

12. Liability for Accidents to Person

The contractor shall be deemed to have indemnified and saved harmless the Government and/or the Authority, against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the contractor or his subcontractor for the works whether under the General law or under workman's compensation Act, or any other statute in force at the time of dealing with the question of the liability of employees for the injuries suffered by employees and to have taken steps properly to ensure against any claim there under.

13. Contractor to Complete the Works

13.1. The Contractor shall execute the Works in accordance with the Milestone, Work plan, work schedule, Specifications, Drawings and site map as specified in the Bid Document. In the case of any class of work for which there is no such specification as is mentioned in the Tender Document, such work shall be carried out in accordance with the instructions and requirement of the Engineer-in-charge.

13.2. The contractor shall supply and take upon himself and at his cost the entire responsibility of the sufficiency of all the means and resources used for the fulfillment of this contract whether such means may or may not be specified in the scope of work, Bid Document, contract agreement or recommended by the Engineer-in-charge.

14. Discoveries

Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Authority/Government. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

15. Dispute Resolution System

15.1. No dispute can be raised except before the Authority in writing giving full description and grounds of Dispute. It is clarified that merely recording protest while accepting measurement and/or payment shall not be taken as raising a dispute.

15.2. No issue of dispute can be raised after 45 days of its occurrence. Any dispute raised after expiry of 45 days of its first occurrence shall not be entertained and the Authority shall not be liable for claims arising out of such disputes.

15.3. The Authority shall decide the matter within 45 days.

15.4. Appeal against the order of the Authority can be preferred within 30 days to the court of Amravati.

15.5. The contractor shall have to continue execution of the works with due diligence notwithstanding pendency of a dispute before any authority or forum.

16. Approval by the Engineer

16.1. The Contractor shall submit the work plan, work schedule, Specifications and Drawings for the commencement of the proposed work/part of proposed work/milestone of proposed work, before the commencement of such works. The contractor shall proceed for the commencement of such work only after the approval of the Engineer-in-charge.

16.2. The Contractor shall be responsible for design of the proposed Works.

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

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

17. Time Frame for completion of works

17.1. The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the milestone achievement schedule set out in the Bid Document as updated time to time by the approval of the Engineer-in-charge, and complete them by the Intended Completion Date.

17.2. The Engineer's approval of the work schedule shall not alter the Contractor's obligations

18. Extension of Time

18.1. If the Contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Engineer-in-charge, on account of which he desires such extension. Engineer-in-charge shall forward the aforesaid application to the competent authority as prescribed.

18.2. The Authority shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of grounds of having unavoidable hindrance in execution of work or on any other such grounds, and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

19. Liquidated Damages

19.1. The Contractor shall pay liquidated damages to the Authority at the rate per day stated in the sub-clause 7.2 of the RFP document, for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data) after considering the extension of time as specified in clause 17 of this GCC. The total amount of liquidated damages shall not exceed the amount defined in the sub-clause 7.2of the RFP document. The Authority will deduct the liquidated damages from payments due to the Contractor.

19.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Authority shall correct any overpayment of liquidated damages by the Contractor by adjusting such overpayment from the next payment due to the contractor or final settlement of payments with the contractor as the case may be. The contractor shall not pay any interest on any such amount of overpayment of liquidity damages.

19.3. Payment of liquidated damages does not affect the Contractor's liabilities.

19.4. Contractor should not claim for escalation bill any more.

20. Contract amount

20.1. No interest shall be payable to the Contractor on any payment due or awarded by the authority.

20.2. The rates quoted by the Contractor shall be deemed to be inclusive of GST and other levies, duties, cess, toll, taxes of Central and State Governments, local bodies and authorities.

21. Quality Control

21.1. Identifying Defects

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

21.1.2 The contractor shall permit the Authority's Technical auditor to check the contractor's work and notify the Engineer and Contractor of any defects that are found. Such a check shall not affect the Contractor's or the Engineer's responsibility as defined in the Contract Agreement.

21.2. Correction of Defects

21.1.3 The Engineer shall give notice to the Contractor of any Defects, in writing.

21.1.4 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time and satisfaction level of the Engineer as specified in the Engineer's notice.

21.1.5 If the Contractor has not corrected a Defect, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

22. Termination of Contract

22.1. The Authority or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. Fundamental breaches of Contract include, but shall not be limited to the following:

(a) Abandons the works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the contract;

(b) The Engineer-in-charge instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 60 days;

(c) The Authority or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(d) The Contractor without reasonable excuse fails to comply with the notice to correct a particular defect within a reasonable period of time;

(e) the Contractor does not maintain a valid instrument of financial Security, as prescribed;

(f) the Contractor has delayed the completion of the Works by such duration for which the maximum amount of liquidated damages is recoverable;

(g) if the Contractor, in judgmental of the engineer in charge has engaged in corrupt or fraudulent practices in competing for or in executing the contract, the definition of corrupt and fraudulent practice shall be as defined in clause 5.9 of the RFP document;

(h) the contractor fails to perform in the manner as specified in the Contract agreement, bid document, bid submitted by him or recommendation by the engineer-in charge;

(i) The contractor (in case of Consortium/joint venture) has modified the composition of the Consortium/joint venture and/or the responsibility of each member of the Consortium/joint venture from what is stated in Consortium/joint venture agreement without prior approval of the Authority.

22.2. Notwithstanding the above, the Authority may terminate the Contract for convenience.

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

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

23. Payment upon Termination

23.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less adjusted advance payments (on pro-rated basis) received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as per the percentage of milestone achievement. Additional Liquidated Damages shall not apply. If the total amount due to the Authority exceeds any payment due to the Contractor the difference shall be a debt payable to the Authority.

23.2. If the Contract is terminated at the Authority's convenience or because of a fundamental breach of Contract by the Authority, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

24. Performance Security

The Contractor shall have to submit performance security as set out in the clause 5.7 of the tender document. The contractor shall have to ensure that such performance security remains valid for the period as specified in the tender document.

25. Payment of contract Amount

25.1. Payment of the 'contract amount' shall be made to the contractor in accordance to the provision as set out in the clause 7 of the RFP document.

25.2. No advance payment shall be made to the contractor in any case.

25.3. The invoice for the payment shall be raised by the contractor, after the certification of the work completed by the contractor and the invoice by the Engineer-in-charge

25.4. The payment shall be made through Demand Draft/Cheque/NEFT/RTGS. No payment shall be made in cash

25.5. All payment shall be made in Indian currencies.

26. Completion Certificate

26.1. A provisional completion certificate in the prescribed format as given in Annexure I of this condition of contract shall be issued by the Engineer in charge after physical completion of the work.

26.2. After final payment to the contractor, a final completion certificate in the prescribed format as given in Annexure II of this condition of contract shall be issued by the Engineer in charge.

26.3. The Authority shall take over the Site and the Works within seven days of the issue of the provisional Completion certificate.

**********END OF GCC**********

B. Special Conditions of Contract (SCC)

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

1. Role of Parties to the Contract

1.1. Role of the Authority

The Authority shall play the following role in this project

(i) The Authority shall handover the Project Site and on an as-is-where-is basis, free from encumbrances, for the execution of the Project. The Authority will not provide any equipment or vehicle for the project. All equipment and machinery required by the successful contractor shall be arranged by the contractor at his own cost.

(ii) The Authority shall earmark the land (to be reclaimed and to be used for segregation and processing of excavated mixed MSW) and give possession to the Contractor within one week of the execution of the Contract Agreement.

(iii) The Authority shall provide access to the land earmarked to the contractor for implementing the project.

(iv) The Authority shall provide necessary clearances, permits, approvals, authorizations, and no objection certificates, at its own cost, which are required by the contractor to execute the project and obtain Water and Sewage Connection and Power Connection.

(v) The Authority shall permit the contractor to carry out the project till the conclusion of the Contract Period of Six months or any extension thereof.

1.2. Role of the Contractor

(i) The contractor shall execute and complete the project in accordance with the provisions set out in the tender document, the Conditions of contract and the contract agreement

(ii) The contractor shall have no right or title or leasehold right on the land earmarked to them. The Land earmarked to the Bidder shall not be used for any other purpose other than for the project purpose.

(iii) The contractor is entitled to switching over to the technologies according to the viability of the implementation of the project commercially subject to prior submission of proposal for such technology switch describing the details of such technology and advantage of using the technology and such proposal being approved by the engineer-in-charge.

(iv) The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Authority at any point of time.

2. Compliance to Law, Rules and Regulations

The contractor shall abide with all the rules and regulations of the Government of India, Government of Maharashtra, Local Governments or any other Government bodies that has direct or indirect incidence on the project, in addition to the rules and regulations mentioned below.

The Contractor shall keep the Authority indemnified in case any action is taken against the Authority by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Authority is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Authority shall have the right to deduct any money due to the Contractor including his amount of performance security. The Authority/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Authority.

The contractor shall perform his obligations for the completion of the works under the umbrella of the below given rules and regulations.

2.1. Compliance with Labour Regulations

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued

under any labour law in future either by the State or the Central Government or the local authority.

2.2. Protection of Environment

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all the terms and conditions prescribed in the Environmental Clearance/ Consent to Establish/Consent to operate issued to the project, existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

The contractor shall commence the project activities as per the rules, regulations and guidelines as set forward by the Solid Waste Management, 2016 and its subsequent amendments thereof, Construction and Demolition Waste Management Rules 2016 and its subsequent amendment thereof, Plastic Waste Management Rules 2016 and its subsequent amendment thereof, Bio-Medical Waste management rules 2016 and its subsequent amendment thereof, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and its subsequent amendment thereof, E-waste management rules 2016 and its subsequent amendment thereof, Environment Protection Act 1986 and its subsequent amendment thereof. Contractors to note that this is the minimum criteria required for the commencement of this work and the contractor will practice the best possible method to protect the Environment.

**********END OF SCC**********

Annexure I: Provisional Completion Certificate

Name of Work:

Agreement No._____ Date_____

Amount of Contract Rs _____

Quantity of Waste Processed _____ m^3.

Certified that the above-mentioned work was provisionally completed on (Date) and taken over on .....(Date) and that I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Engineer-in-Charge

Annexure II: Final Completion Certificate

Name of Work:

Agreement No._____ Date: _____

Name of Agency: _____

Certified that the above-mentioned work was physically completed on_____ (date) and taken over on_____(date) . Agreement amount Rs.

Final amount paid to contractor Rs. _____ .

Quantity of Waste Processed _____ m^3

Incumbency of officers for the work

I have satisfied myself to best of my ability that the work has been done

properly.

Date of Issue:_____

Engineer in Charge

-TRUE COPY-

ANNEXURE A-12

INDIA NON JUDICIAL

RS.500 **FIVE HUNDRED RUPPEES**

MAHARASHTRA **2018** **AP 231809**

AGREEMENT

THIS AGREEMENT of which Tender Notice, For I, & Form II etc. operating herein before AND Declaration, Terms &Conditions, Form B-I, A-2 and conditions of contract etc. appearing herein after which are part and parcel of this agreement, made at Amravati on this **5** the Day **9** of Two thousand Nineteen.

-BETWEEN-

The Municipal Corporation of City of Amravati through it's Commissioner, hereinafter referred to as the 'Corporation' (which expression shall unless the context does not so admit, include it's successors and assign's) of the One PART

AND

Shri. **Sadguru bagadebaba Enterprise Ltd.** Shri. **Dilip Gaikwad** and Shri. **P.H. Jadhao** carrying on business in partnership of _____ at _____ in the firm name and style of **S. B. Enterprises** Limited Company Registered under the Companies Act, 1956.

(No. 1 of 1956) and having it's Registered office at **Pune** hereinafter referred to as the "CONTRACTOR" (which expression shall unless the context does not so admit, include him/his heirs, executors, administration/survivors or Survivor of them, the heirs, executors and administrators of the last survivor, the

partner or partner for the time being of the said firm of _____ its successors of the OTHER PART.

DECLARATION

I hereby declare that I have made myself thoroughly conversant with the local condition regarding all materials such as stones, murum, and etc. and labour on which I have based my rates for this work. The specifications and lead for this would have been carefully studied and understood be me before submitting the tender. I under take tousle only the best materials approved by the City Engineer in charge of the work of his duly authorized representative before starting the work and to abide by this decision.

I hereby undertake to pay the labourers engaged on the work as per minimum wages Act. 1948 applicable to the zone concerned.

Sd/-

Contractor Signature

INDIA NON JUDICIAL

RS.500 **FIVE HUNDRED RUPPEES**

MAHARASHTRA **2018** **AP 231808**

CONTRACT AGREEMENT

This agreement, made the **5** day of **9,** 2019, between the **Amravati Municipal Corporation**having registered address at Amravati Municipal Corporation,Rajkamal Square, Amravati, Maharashtra – 444601] (hereinafter called as "the Authority") of the one-part and **M/S. Sadguru Bagadebaba Enterprises in JV with P.H Jadhav** having registered address of Lead Member – M/s Sadguru Bagadebaba Enterprises, Ward no.3, Sr. No. 156/2b/2, Harwada, Manjiri Budhruk, Pune Maharashtra, 411036 (hereinafter called "the Contractor") of the second part.

Whereas the Authority is desirous that the Contractor execute **The Work of "Scientific Dumpsite Land Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati under Amravati Municipal Corporation, Amravati, Maharashtra** (hereinafter called "the Works") and the Authority has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects there in, at a contract price of INR 4,63,83,804.68/- including GST and all other taxes.

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter refereed to, and they shall be deemed to form and be read and constructed as part of this Agreement.

2. In consideration of the payments to be made by the Authority to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Authority to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.
3. The Authority hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein 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.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
    i. Letter of Acceptance;
    ii. Notice Inviting Bid;
    iii. Bid Document issued by the Amravati Municipal Corporation and its subsequent amendments and corrigendum.
    iv. Contractor's Bid;
    v. Conditions of contract (including Special Conditions of Contract);
    vi. Specifications'
    vii. Drawings and Site Map;
    viii. Another document listed in the Condition of Contract forming part of the contract.

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A. **General Conditions of Contract (GCC**)

1. Definitions

"Authority" means The Commissioner, of the Amravati Municipal Authority who will execute the contract agreement with the Contractor to carry out the work. The Authority may delegate any or all functions to a person or body nominated by him for specified functions. The work Authority/Government/Department wherever used denotes the Authority.

"Completion" means completion of the work, as certified by the Engineer-in –Charge, in accordance with provisions of agreement.

"Contract" means the Contract between the Authority and the Contractor to execute, complete and/or maintain the work. Agreement is synonym of Contract and carries the same meaning wherever used. **The "Contractor" is** a person or corporate body whose Bid to carry out the Works has been accepted by the Authority.

"Contract" means a person, or a legal entity whose bid to carry out the work has been accepted by the Authority.

"Contractor's bid" means the completed bid document submitted by the Contractor to the Authority. **"Contract amount"** means the amount of contract worked out on the basis of accepted bid. **"Completion of work"** means completion of the entire contracted work. Exhaustion of quantity of any particular item mentioned in the bid document shall not imply completion of work or any component thereof.

"Defect" means any part of the work not competed in accordance with the specification included in the contract.

"Drawings" means drawings including calculation and other information provided or approved by the Engineer-in-Charge.

"Department" means the Amravati Municipal Corporation or as specified.

"Engineer-in-Charge" means the person nominated by the Authority for overall supervision and coordination of the work, provide approve to work plan and work schedules submitted by the contractor of commencement of the work, approval of drawings and specification, certification of the work executed by the contractor and invoice raised by the contractor. The Word "Engineer" wherever used, other than mentioned or specified, means the Engineer-in-charge.

"Equipment" means the Contractor's machinery and vehicles brought temporarily to the site for execution of work at his own cost.

"Government" means the Government of Maharashtra or the Government of India as the case may be. **"In Writing"** means communicated in written dorm and delivered against receipt.

"Material" means all supplies including consumables used by the Contractor for incorporation in the work.

"Stipulated dated of completion" means the date on which the Contractor is required to complete the work. The stipulated date is specified in the Contract Data.

"Specification" means the specification of the work included in the Contract and any modification or addition made or approved by the Engineer-in-Charge.

"Start Date" means the date 14 days after the signing of agreement for the work. However, the Authority may extend this time limit by another 14 days, as and when required.

"Sub-Contractor" means a person or corporate body who has a Contract (duly authorized by the Authority) with the Contractor to carry out a part of the work under the Contract.

"Temporary Work" means work designed, constructed, installed, and removed by the Contractor that are needed for the work.

"Tender/Bid/Bid Document/Request for Proposal (RFP), Tenderer/Bidder" are the synonyms and carry the same meaning where ever used.

"Variation" means any change in the work which is instructed or approved as variation under this contract.

"Work" the **expression "work"** or **"work"** or **"Project"** where used in these conditions shall unless there be something either in the subject or context repugnant to such work, be construed and taken to mean the work by

virtue or contract, contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional.

"Work Plan" means the implementation plan, including phasing of works, physical completion milestones and other such details that the Authority shall seek from time to time with respect to tracking progress of the works.

2. Interpretations

In the contract, except where the context requires otherwise

2.1. Words indication one gender include all genders;

2.2. Words indicating the singular also include the plural and vice versa;

2.3. Provisions including the work "agree", "agreed" or "agreement" require the agreement to be recorded in writing;

2.4. **"Written"** or "**in writing**" means hand-written, type-written, type-written printed or electronically made, and resulting in a permanent record; Words have their normal meaning under the language of the Contract unless specifically defined.

2.5. The Engineer will provide instruction clarifying sense about the Conditions of Contract.

3. Documents Forming Part of Contract

3.1. Notice Inviting Bid with all amendments.

3.2. Tender Document (Tender Notice No. AMC/SD/SWMTN/257/2019) with all amendments and corrigendum

3.3. Contract Agreement

3.4. Conditions of Contract:

3.5. Specification;

3.6. Drawings and site map

3.7. Technical and Financial Bid submitted by the Contractor

3.8. Any other document (s), as specified or important to execute this contract.

4. Language and Law

The language of the Contract and the law governing the Contract are stated in these conditions of contract.

5. Communications

All certificates, notice or instruction to be given to the Contractor by Authority/Engineer shall be sent on the address or contact details given by the Contractor in Form 2 of his submitted Rid the address and contract details for communication with the Authority/Engineer shall be as per the details given in bid data sheet of theRFP Document or as specified in written from time to time. Communication between parties that are referred to in the conditions shall be in writing. The notice sent by facsimile (fax) or other electronic means (email) shall also be effective on confirmation of the transmission. The notice sent by registered post or speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service. In case of any change in address for communication, the same shall be immediately notified to Engineer-in-Charge.

6. Engineer's Decisions

6.1. Except where otherwise specifically stated, the Engineer under the guidance of the Commissioner, Municipal Corporation, and Amravati will decide contractual matters between the Authority and the Contractor in the role representing the Authority.

6.2. The Engineer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

7. Subcontracting

The Contractor may subcontract with the approval of the authority but may not assign the contract without the approval of the Authority in writing. Subcontracting does not alter the Contractor's obligations.

8. Personnel

8.1. The Contractor shall employ the key personnel named in the Schedule of key Personnel in the Form 9 (B) of his submitted technical bid to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

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

9. Force Majeure

9.1. The term "Force Majeure" means an exceptional event or circumstance:

a) Which is beyond a party's control;
b) Which such party could not reasonably have provided against before entering into the contract;
c) Which, having arisen, such party could not reasonably have avoided or overcome, and;
d) Which is not substantially attributed to the other Party

9.2. Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) in the sub-clause 9.1 above, are satisfied:

(i) War, hostilities (whether war be declared or not), invasion, act of foreign enemies);

(ii) Rebellion, terrorism, sabotage by persons other than the contractor's Personnel, revolution, insurrection, military or usurped power, or civil war;

(iii) Riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel;

(iv) Munitions of war, explosive materials, ionizing radiation or contamination by radio activity, except ass may be attributed to the Contractor's use of such munitions explosives, radiation or radio activity, and;

(v) Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

9.3. In the event of either party being rendered unable by force majeure to perform any duty or discharge any responsibility arising out of the contract, the relative obligation of the party affected by such force majeure shall upon notification to the other party be suspended for the period during which force majeure event lasts. The cost and loss sustained by either party shall be borne by respective parties.

9.4. For the period of extension granted to the Contractor due to Force Majeure the penalty clause shall not apply. It is clarified that the clause '9' shall not give eligibility for any adjustment or escalation in contract amount.

9.5. The time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such cause lasts. Should the delay caused by force majeure exceed six months, the

parties to the contract shall be at liberty to foreclose the contract after holding mutual discussions.

10. Contractor's Risks

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

10.2. All risks and consequences arising from the inaccuracies or falseness of the documents and/or information submitted by the contractor shall be the responsibility of the Contractor alone, notwithstanding the fact that designs/drawings or their documents have been approved by the department.

11. Safety

The Contractor shall be responsible for the safety or all activities on the Site. The Contractor shall comply to the safety guidelines and best industrial practice to implement safety at work place.

12. Liability for Accidents to Person

The contractor shall be deemed to have indemnified and saved harmless the Government and/or the Authority, against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the contractor or his subcontractor for the works whether under the General law or under workman's compensation Act, or any other statute in force at the time of dealing with the question of the liability of employees for the injuries suffered by employees and to have taken steps properly to ensure against any claim there under.

13. Contractor to Complete the Works

13.1. The Contractor shall execute the Works in accordance with Milestone, Work plan, work schedule, Specification, Drawings and site map as specified in the Bid Document. In the case of any class of work for which there is no such specification as is mentioned in the Tender Document, such work shall be carried out in accor5dance with the instructions and requirement of the engineer-in-charge.

13.2. The Contractor shall supply and take upon himself and at his cost the entire responsibility of the sufficiency of all the manes and resources used for the fulfillment of this contract whether such means may or may not be specified in the scope or work, Bid Document, contract agreement or recommended by the Engineer-in-charge.

14. Discoveries

Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Authority /Government. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instruction for dealing with them.

15. Dispute Resolution System

15.1. No dispute can be raised except before the Authority in writing giving full description and grounds of Dispute. It is clarified that merely recording protest while accepting measurement and/or payment shall not be taken as raising a dispute.

15.2. No issue of dispute can be raised after 45 days of its occurrence. Any dispute raised after expiry of 45days of its first occurrence shall not be entertained and the Authority shall not be liable for claims arising out to such disputes.

15.3. The Authority shall decide the matter within 45 days.

15.4. Appeal against the order of the Authority can be preferred within 30 days to the court of Amravati.

15.5. The contractor shall have to continue execution of the works with due diligence notwithstanding pendency of a dispute before any authority or forum.

16. Approval by the Engineer

16.1. The Contractor shall submit the work plan, work schedule, Specifications and Drawings for the commencement of the proposed work/part of proposed work/milestone of proposed work, before the commencement of such works. The contractor shall proceed for the commencement of such work only after the approval of the Engineer-in-charge.

16.2. The Contractor shall be responsible for design of the proposed Works.

16.3. The contractor shall obtain approval of third parites to the design of the Works where required.

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

17. Time Frame for Completion of Works

17.1. The contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the milestone achievement schedule set out in the Bid Document as updated time to time by the approval of the Engineer-in-charge, and complete them by the Intended Completion Date.

17.2. The Engineer’s approval of the work schedule shall not alter the Contractor’s obligations.

18. Extension of Time

18.1. If the Contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Engineer-in-charge, on account of which he desires such extension. Engineer-in-charge shall forward the aforesaid application to the competent authority as prescribed.

18.2. The Authority shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of grounds of having unavoidable hindrance in execution of work or on any other such ground, and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

19. Liquidated Damages

19.1. In case the work is not completed within the stipulated period of completion of whole or part of work (achievement of milestones specified by authority) along with all such extensions which are granted to the Contractor for either Authority's default of Force Majeure, the compensation shall be levied on the contractor at the rate of 0.05% of the contract amount per day of delay limited to maximum of 10% of contract amount.

19.2. The Authority will deduct the liquidated damages from payments due to the Contractor.

19.3. If the liquidated damage attains to a maximum of 10% of the contract amount the authority may:

(i) Terminate the contract agreement and forfeit the EMD and the performance Security.

(ii) Retain the contractor on depositing the amount equivalent to the liquidity damage of 10% of the contract amount. However, the retention of the contractor on such ground shall not free him from his liabilities for completion of the work or any future imposition of liquidity damages.

19.4. The decision of the Authority in this regard shall be final and binding upon both the parties.

19.5. The Contractor shall pay liquidated damages to the Authority at the rate per day stated in the sub-clause 19.1 above, for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data) after considering the extension of time as specified in clause 17 of this GCC. The total amount of liquidated damages shall not exceed the amount defined in the sub-clause 19.3.

19.6. If the Intended Completion Date is extended after liquidated damages have been paid, the Authority shall correct any overpayment of liquidated damages by the Contractor by adjusting such overpayment from the next payment due to the contractor or final settlement of payments with the contractor as the case may be. The contractor shall not pay any interest on any such amount of overpayment of liquidity damages.

19.7. Payment of liquidated damages does not affect the Contractor's liabilities.

19.8. Contractor should not claim for escalation bill any more.

20. Penalty for Non-Compliance

Sr. no.	Penalty Description	Penalty Amount

1	Non-Compliance to, SWM Rules 2016 and other Environmental Standards notified by regulatory authorities or as specified in the Contract.	Rs. 10,000/- per Incidence per day till the compliance of the failure in addition to the Penalties/Actions imposed by various authorities.
2	Non provision of 1. Site Facilities as per specifications	Rs. 5,00/- per item per day
3	Non-Compliance of Safety Standards, use of Personal Protective Equipment by the workers	Rs. 5,000/- per Incidence per day till the compliance of the failure in addition to the Penalties / Actions imposed by various authorities.

21. Contract Amount

21.1. No interest shall be payable to the Contractor on any payment due or awarded by the authority.

21.2. The rates quoted by the Contractor shall be deemed to be inclusive of GST and other levies, duties, cess, toll, taxes of Central and State Governments, local bodies and authorities.

22. Quality Control

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

22.2. The contractor shall permit the Authority's Technical auditor to check the contractor's work and notify the Engineer and Contractor of any defects that are found. Such a check shall not affect the Contractor's or the Engineer's responsibility as defined in the Contract Agreement.

22.3. The Engineer shall give notice to the Contractor of any Defects, in writing.

22.4. Every time notice of a Defect is given, the Contractor shall correct the notified Defect with the length of time and ratification level of the Engineer as specified in the Engineer's notice.

22.5. If the Contractor has not corrected a defect, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

23. Termination of Contract

23.1. The Authority may terminate the Contract if the contractor causes a fundamental breach of the Contract. Fundamental breaches of Contract include as under:

(a) Abandons the works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the contract;

(b) The Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(c) The Contractor without reasonable excuse fails to comply with the notice to correct a particular defect within a reasonable period of time;

(d) The Contractor does not maintain a valid instrument of financial Security, as prescribed;

(e) The Contractor has delayed OR failed to execute work within stipulated time.

(f) If the Contractor, in judgment of the engineer in charge has engaged in corrupt of fraudulent practices in competing for or in executing the contract, the definition of corrupt and fraudulent practice shall be as defined in clause 5.9 of the RFP document;

(g) The contractor fails to perform in the manner as specified in the Contract agreement, bid document, bid submitted by him or recommendation by the engineer-in-charge;

(h) The contractor (in case of Consortium/joint venture) has modified the composition of the Consortium/joint venture from what is stated in Consortium/joint venture agreement without prior approval of the Authority.

(i) Contractor failed to perform / execute / run project as per scope of work.

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

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

24. Payment Upon Termination

24.1. If the Contract is terminated because of a fundamental breach of Contract by the contractor, the Engineer shall issue a certificate for the value of the work done less adjusted advance payments (on pro-rated basis) received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as per the percentage of milestone achievement. Additional Liquidated Damages shall not apply. If the total amount due to the Authority exceeds any payment due to the Contractor the difference shall be a debt payable to the Authority.

24.2. If the Contract is terminated at the Authority's convenience or because of a fundamental breach of Contract by the Authority, the Engineer shall issue a certificate for the value of the Work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

25. Performance Security

25.1. Contractor shall have to furnish Performance Security to the Authority in the form of bank guarantee ("the Performance Bank Guarantee" (PBG) issued by a nationalized / scheduled bank located in India or a reputable bank located aboard having corresponding bank in India, in the format given in Form 12 of RFP, for an amount equivalent to 5% of the Contract value. The performance security of a joint venture shall be in the name of the joint venture (Additional performance Security deposit should be paid latest GRs of State Government of Maharashtra)

25.2. The contractor shall have to ensure that such performance security remains valid for the period till end of works and as specified in the tender document.

26. Payment of Contract Amount

26.1. The Authority will be releasing payment for the work based on the percentage of proposed land (90% of the earmarked land by the Authority) to be reclaimed as per the achievement of the milestone mentioned in the table below:

Milestone	Physical Progress	Time of Completion 9will change based on quantity/area of legacy waste)	Broad Parameters of Physical Progress	% release of Contract Value
First Milestone	40% of the proposed land to be reclaimed	2 Months (to be changed by ULB based on quantity of waste/time required)	40% of the proposed land to be reclaimed	30%
Second Milestone	30% of the proposed land to be reclaimed	2 Months (to be changed by ULB based on quantity of waste/time required)	Cumulative 7% of the proposed land to be reclaimed	30%
Third	20% of the proposed	2 Months (to be changed	Cumulative 100% of the	40%

Milestone	land to be reclaimed	by ULB based on quantity of waste/time required)	proposed land to be reclaimed	

(Processing fee payment Interval= 3% 30%& 40% respectively based on Physical progress as per clause 26.1 minus liquidated damage as per clause 19 and penalty for non-compliance as per clause 20)

26.2. The Contractor shall, on completion of the particular Milestone of the work, before the 20th (twentieth) day of the Month or in case the 20th (twentieth) day of a Month is a holiday then on the following working day of such Month, submit to the Authority a statement ("the Running Bill") providing the following details:

(i) Amount of Processing Fee for the completed milestone calculated in accordance with Clause 26.1

(ii) Items of Work Completed at site including photographic evidence of the same

(iii) Certificate from the Engineer-in-Charge certifying the work done and milestone achieved.

(iv) Details of the employment of Man-hours, Machinery and equipment utilized to achieve the physical progress of the Milestone.

26.3. No advance payment shall be made to the contractor in any case

26.4. The invoice for the payment shall be raised by the contractor, after the certification of the work completed by the contractor and the invoice by the Engineer-in-Charge.

26.5. The payment shall be made through Demand Draft/Cheque/NEFT/RTGS, No payment shall be made in cash.

26.6. All payment shall be made in India currencies.

26.7. The authority shall not pay interest on the bill amount, if delay occurs in the release of the payment, for any reason whatsoever.

27. Completion Certificate

27.1. A provisional completion certificate in the prescribed format as given in Annexure 1 of this condition of contract shall be issued by the Engineer in charge after physical completion of the work.

27.2. After final payment to the contractor, a final completion certificate in the prescribed format as given in Annexure II of this condition of contract shall be issued by the Engineer in charge.

27.3. The Authority shall take over the Site and the Works within seven days of the issue of the provisional Completion certificate.7

B. Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

1. Role of Parties to the Contract

1.1. Role of the Authority

The authority shall play following role in this project

(i) The Authority shall handover the Project Sit and on an as-is-where-is basis, free from encumbrances, for the execution of the Project. The Authority will not provide any equipment or vehicle for the project. All equipment and machinery required by the Successful contractor shall be arranged by the contractor at his own cost.

(ii) The Authority shall earmark the land (to be reclaimed and to be used for segregation and processing of excavated mixed MSW)

and give possession to the Contractor within one week of the execution of the Contract Agreement.

(iii) The Authority shall provide access to the land earmarked to the contractor for implementing the project.

(iv) The Authority shall provide necessary clearances, permits, approvals, authorization, and no objection certificates, at its own cost, which are required by the contractor to execute the project and obtain Water and Sewage connection – and Power Connection.

(v) The Authority shall permit the contractor to carry out the project fill the conclusion of the Contract Period of Six months or any extension thereof.

1.2. Role of the Contractor

(i) The contractor shall execute and complete the project in accordance with the provisions set out in the tender document, the Conditions of contract and the contract agreement.

(ii) The contractor shall have no right or title or leasehold right on the land earmarked to them. The Land earmarked to the Bidder shall not be sued for any other purpose other than for the project purpose.

(iii) The contractor is entitled to switching over to the technologies according to the viability of the implementation of the project commercially subject to prior submission of proposal for such technology switch describing the details of such technology and advantage of using the technology and such proposal being approved by the engineer-in-charge.

(iv) The employees of the Contractor and the Sub-Contractor and the Sub-Contractor in no case shall be treated as the employees of the Authority at any point of time.

2. Compliance to Law, Rule and Regulation

The Contractor shall abide with all the rules and regulation of the Government of India, Government of Maharashtra, Local Governments or any other Government bodies that has direct or indirect incidence on the project, in addition to the Rules and regulations even or Govt. of India and Govt. of Maharashtra. The Contractor shall keep the Authority informed in case any action is taken against the Authority by the competent authority account of contravention of any of the provisions of any Act or rules made there under regulation or notification including amendments. If the Authority is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications / byelaws / Acts / Rules / regulations including amendments, of any on the part of the Contractor, the Engineer / Authority shall have the right to deduct any money due to the Contractor including his amount of performance security. The Authority / Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Authority.

The contractor shall perform his obligations for the completion of the works under the umbrella of the below given rules and regulations.

2.1. Compliance with labour regulations

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations notifications and bye laws of the

State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority.

2.2. Protection of Environment

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all the terms and conditions prescribed in the Environmental Clearance / Consent to Establish / Consent to operate issued to the project, existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government of the local authority. The contractor shall commence the project activities as per the rules, regulations and guidelines as set forward by the Solid Waste Management, 2016 and its subsequent amendments, thereof, Construction and Demolition Waste Management Rules 2016 and its subsequent amendment thereof, Plastic Waste Management Rules 2016 and its subsequent amendment thereof, Bio-Medical Waste Management rules 2016 and its subsequent amendment thereof, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and its subsequent amendment thereof, E-waste management rules 2016 and its subsequent

amendment thereof, Environment Protection Act 1986 and its subsequent amendment thereof. Contractors to note that this is the minimum criteria required for the commencement of this work and the contractor will practice the best possible method to protect the Environment.

3. Scope of Work for the Contractor

The current project intends to undertake the works required for Dumpsite Land Reclamation through Bio-mining of old Dumped Municipal Solid Waste/Legacy Waste, resource recovery and scientific disposal or residual solid waste under the Amravati Municipal Corporation, Amravati, the contract shall be awarded to the successful bidder ("the contractor") for a period of 6 months reckoned from the date of signing of contract agreement or the date of issue of Consent to Establish (CTE) to the project, whichever is later. The Authority shall appoint an Engineer (the "Engineer-in charge") for overall supervision, monitoring and certification of the works executed by the contractor. The brief scope of work to be craned out by the selected contractor during the execution of the intended project includes, but not limited to the following component:

(i) The Contractor shall carryout Total Station Survey of complete project site including area earmarked in which Bio-mining is to be done. Total Station Survey shall be certified by the Engineer-in-charge and City Engineer. And calculate exact quantity of dumped waste at site, provide flow chart of how to reclaim site. The survey shall be done at the time of possession of the site as well as at the completion of each milestone of physical progress of land reclamation at the site. The survey report shall be submitted along with each running bill. The area earmarked by

Authority for Reclamation through Bio-mining shall be considered as 100% area for the scope of work.

(ii) Minimum 90% of the earmarked land to be reclaimed which is presently covered by old and new / legacy waste.

(iii) The Contractor shall carry out baseline environmental survey of the site as per EMP and specification.

(iv) The Contractor shall conduct its own due diligence for site investigation, analyzing the characteristics, composition and quantum of the waste at the Project site.

(v) The Contractor shall carry out baseline environmental survey of the site as per EMP and specification.

(vi) The Contractor shall conduct its own due diligence for site investigation analyzing the characteristics, composition and quantum of the waste at the Project site.

(vii) Dumpsite reclamation will be done by dividing the site into suitable sectors/loops in consultation f the Engineer-in-charge based on the priority of land reclamation.

(viii) Usually the top layer has fresh waste, dust and may have several materials in the active biological state. This layer is to be stabilized through application of Bio-Culture, herbal/biological sanitizers, inoculants or through any suitable scientific method as proposed by the contractor and accepted by the Engineer-in-charge. Odor shall be controlled and minimized thorough application of deodorant or scientific method.

(ix) Excavating the existing mixed compacted MSW in the land portion allocated/earmarked by the Authority and sieving them by Mechanical sieving machine or any other suitable technology proposed and accepted by the Engineer-in-charge.

(x) The contractor shall deploy sufficient machinery, manpower and required resources to execute the project scope within the project duration.

(xi) Provision, installation, operation and maintenance of plant, machineries, infrastructure facilities and amenities for excavation, sieving of the excavated MSW, storing the segregated materials, reuse, marketing, selling, and transporting them from the project site.

(xii) Construction of temporary shed, platform and creation of facilities for handing segregating, storing and quantifying of the excavated MSW and processing material, as per detail discussion with Engineer-in-charge.

(xiii) Excavating the soil which lost its stability due to MSW dumping with necessary dewatering works in the portion of the land earmarked at the cost of the Contractor.

(xiv) MSW waste brought for segregation and processing from the earmarked land portion shall be quantified (in Cubic meter, based on number of vehicles trips and capacity) after excavation and record of the same shall be maintained by the Contractor and Authority jointly. Weekly report shall be submitted to head office (AMC) by contractor.

(xv) Segregate the excavated MSW in the land portion earmarked into as many kinds and categories as possible of Useful Material such as compost, soil conditioner, recyclables, raw RDF, filler material (Soil, C&D) and Un-useful material such as residual Solid Waste.

(xvi) Packing, storing, stacking, selling, diverting for recycling, marketing and recycling of all Useful and un-useful Material within thirty days of segregation at the cost of the Contractor,

without accumulation in the storage facility at the project site beyond thirty days.

(xvii) Baling, packing, stacking, storing Serial to RDF producer user or sale to waste to energy or co-processing cement plants or to thermal power plants.

(xviii) Stacking, transporting, spreading and compacting the segregated C&D, Soil and inert as filler material in low level and depression area within the site or suggested within territory of city and prepare well compacted and clear ground for proposed development at site or disposing such material in the low level area or quarry area designated by the Authority with statutory approval at the cost of the Contractor with proper compliance to the statutory requirements.

(xix) The revenue or the income from the sale of the segregated Useful Material such as reusable and recyclable, Compost, soil conditioner, raw RDF, C&D, Soil or any other by-product materials shall go to the contractors account. However, before selling the recovered material the Contractor, at its own cost, will conduct a lab testing of such materials from an NABL accredited lab, for the parameters as recommended by the Engineer-in-charge or applicable rules/guidelines, and submit the report of the same to the Engineer-in-charge. The contractor shall initiate the sale or disposal process of such material by-products only after the acceptance/approval of the engineer-in charge.

(xx) The Contractor shall hand over reclaimed land and scientific residual solid waste disposal site to the Authority in a good and acceptable condition as per Act, Rules 2016.

(xxi) The Contractor Shall be responsible for procuring necessary approvals from competent authority.

(xxii) Record of the residual solid waste disposal quantity (in Cubic meter cases on number of vehicles trips and capacity) shall be maintained by the Contactor and the Authority jointly and submitted regularly to the Authority.

(xxiii) Carrying out the entire project work in accordance with the Detailed Plan of action and schedule proposed by Bidder and approved by the Authority at the cost of the Contractor.

(xxiv) Using only covered body vehicles for the transportation of materials at the cost of the Contractor.

(xxv) Apply method, process equipment and resources which would reduce impact of dumpsite reclamation activity in the adjacent areas.

(xxvi) Create facilities and make arrangements for controlling / mitigation the emission, pollution and contamination (Environment impact) including at water and soil including mitigation for of dust odor and noise pollution at the cost of the Contractor

(xxvii) Construction of temporary site office, water, power, sanitation facilities and accommodation facilities of workers for the Project as per statutory standards at the cost of the Contractor.

(xxviii) Providing security arrangement for the project site, machineries, equipment CCTV cameras etc. at its own cost.

(xxix) Completing the work within the Contract Period.

……..END OF SCC……..

In witness whereof the parties thereto have caused this agreement to be executed the day and year first before written.

The common Seal of Authority was here unto affixed in the presence of Signed------- and Delivered by the said.

Sd/-	Sd/-
Dy. Commissioner	Director: M/s Sadguru Bagadebada
Amravati Municipal Corporation	Enterprises
Binding Signature of Authority	(authorized signatory of
	M/S Sadguru Bagadebaba
	Enterprises in JV with P.H Jadhav)
Signature of Witness -1:	Binding Signature of Contractor
Name Prashant upadhye	Member of Standing Committee

Designation	Signature of Witness – 1
	Name:
Signature of Witness -2:	Designation:
Name Deepak	Signature of Witeness-2
Designation	Name:
	Designation

-TRUE COPY-

ANNEXURE A-13

जा.क्र./अमनपा/वावि/श.अ./ 535/2019 दि. 20/09/2019

WORK ORDER

To,

M/s. Sadguru Bagadebaba Enterprises in JV with P.H Jadhav
Office of M/S Sadguru Bagadebaba Enterprises,
WARD NO. 3, SR. NO. 156/2B/2, CHARWADA, MANJIRI
BUDHRUK, Pune, Maharashtra, 411036.

Subject: work order for The Work of "Scientific Dumpsite Land Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati under Amravati Municipal Corporation, Amravati, Maharashtra

Reference: i. Acceptance of award issued for subject work dated on 30/07/2019.

ii. Standing committee resolution No.31 Dt. 26/07/2019 for the approval of financial offer.

iii. Agreement with Amravati MC for the subject work dated on 20/09/2019.

With respect to above subject and financial proposal submitted by your firm M/S Sadguru Bagadebaba Enterprises in JV with P.H. Jadhav is the lowest (L-1 in) financial proposal with rate of Rs. 4,63,83,804.68/- including GST and other taxes which is 16.30% below the estimate Amount of Rs 5,54,16,732.00/-.

Your bid for the work mentioned above has been accepted on behalf of the Amravati Municipal Corporation, at your bided offer as per scope of work given therein. Standing committee, AMC has given approval for your financial offer with resolution number 31 dated on 26/07/2019.

Letter of Award has been issued to you dated on 30/07/2019 and same has been accepted from You M/S Sadguru Bagadebaba Enterprises in JV with P.H. Jadhav have submitted performance security of amount Rs. 63,08,197/- in the form of bank guarantee.

We hereby issue work order for subject work and instruct you to start the works immediately with following instructions;

1. You shall execute the works as per the conditions of contract of the agreement executed for the subject work. Any delay in works or issues with performance shall lead to applicable penalty and liquidity damages as mentioned in the agreement.
2. All taxes, security deposits shall be deducted from every bill as per the applicable norms of Govt of India , PWD Department Govt of Maharashtra and Amravati Municipal Corporation respectively.
3. The time allowed for carrying out the construction work as in the agreement is **6 months** including rainy season, shall be reckoned from the date of signing the contract agreement.
4. You are instructed to execute the works as per SWM Rules 2016, CPHEEO manual for MSW 2016.

5. You are instructed to take all necessary NOCs, Environmental Clearance, Consents from respective government departments, MPCB and with respect to SWM Rules 2016, all applicable acts and regulations of Ministry of Environment Forest and Climate Change, Govt of India.
6. You are instructed to follow and responsible to work with respect to all applicable acts, rules, regulations issued by Govt of Maharashtra, Maharashtra Pollution Control Board, Ministry of Environment Forest and Climate Change (GoI) And National Green Tribunal (NGT), etc.
7. All the payments to be made to contractor from authority shall not exceed contract price.

Signing the contract agreement shall be reckoned as intimation to commencement of work and no separate letter for commencement of work is required. Therefore, after signing of the agreement, you are directed to contact Authority/Engineer-in-charge for taking the possession of site and necessary instructions to start the work.

You are instructed to provide the acceptance of this Work Order within 7 days. Failure to provide acceptance of work order shall subject to cancellation of award of work and agreement.

(Ravindra M. Pawar)
City Engineer
Amravati Municipal Corporation,
Amaravati, Maharashtra.

28/9/19

Copy to,

1. The Hon'ble Commissioner, AMC for information.
2. The Hon'ble Deputy Commissioner (Gen.), AMC for information.
3. The MOH, AMC for information.
4. Shri. Laxman Pawade, Assistant Engr. For execution and supervision of site report to head office as per condition mention in agreement. 28.09.19 — 28/9/19
5. Shri. Madhukar Raut, Deputy Engr. For execution and supervision of site report to head office as per condition mention in agreement. 28/9/19
6. M/s MaRS planning & Engineering services Pvt Ltd. For further action as per your agreement with AMC.

28/09/19

Dmcpal

-TRUE COPY-

SADGURU BAGDEBABA ENTERPRISES

SR.NO. 156/2B/2, GODAI PARK OPPOSITE VSI CHARWADA, MANJARI- 412307.

MOB NO. 9225608361/9823728361

Date: 27/11/2019.

To,
Mr.Pawade Sir
Amravati Municipal Corporation, Amravati.

Subject- Selection of Work Station for Tender tender quantity of 131946.20 m3 **"Scientific Dumpsite Land Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati."**

Dear Sir,

Thank you very much for your support.As per RFP document,We have completed Total Station Survey of total SukaliDumpyard.

As we have accepted Tender condition of Approx quantity of 131946.20 m3 from 9.35 HR area and 90% land to be reclaimed from mentioned quantity of 131946.20 m3.

But at present based on total survey report total dump covered area is **7.64** Hector.
And total quantity is **399867.73 M3.**Which is approx 3.5 time than tender quantity.we have estimated tender cost Rs.419 per M3 (As per MJP Standard Estimate for Maharashtra)and total estimation is Rs.5,54,16,732.00 .

Request you to please select working stations for bio mining process from attached Total Station Survey report. Which will cover 131946.20 m3 waste from respective 9.35HR.After your confirmation we will start work as per tender condition on immediate effect. Kindly give acceptance on server report.

discussed we have appointed below mentioned supervision/technical staff for Sukali bio Miningwork.This id for your information.

1)ManjitsighKuldeepsinghSethi
Designation- Site Engineer
Mo.No.- 99709 56935

2)SanjayJabardastGaikwad-
Designation- Site Supervisor
Mo.No.9545607010

3)Rahul Jayant Parwani-
Designation- Site Supervisor
Mo.No.70200 07552

SADGURU BAGDEBABA ENTERPRISES

SR.NO. 156/2B/2, GODAI PARK OPPOSITE VSI CHARWADA, MANJARI- 412307.

MOB NO. 9225608361/9823728361

Date: 27/11/2019.

Regards,

Sadguru Bagadebaba Enterprises

DilipGaikwad

Proprietor

Proprietor

Enclosed-

1. Survey Report
2. Survey Map

Copy to,

1.The Hon'ble Commissioner, AMC

2.The Hon'ble Deputy Commissioner (Gen) ,AMC

3.The Hon'ble MoH ,AMC

4.Mr.LaxmanPawade, Assist Engineer

Filling Report

Sl. No.	Section From	Previous Section	Difference	Width	Cutting Volume				Filling Volume			
					Area Sq. Meters	Previous Area	Average Sq. Meters	Volume Cubic Meters	Area Sq. Meters	Previous Area	Average Sq. Meters	Volume Cubic Meters
1	590.003		0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	595.000	590.003	4.997	20.919	0.000	0.000	0.000	0.000	17.602	0.000	8.801	43.979
3	600.000	595.000	5.000	40.405	0.000	0.000	0.000	0.000	79.228	17.602	48.415	242.075
4	605.000	600.000	5.000	57.602	0.000	0.000	0.000	0.000	176.561	79.228	127.895	639.473
5	610.000	605.000	5.000	75.391	0.000	0.000	0.000	0.000	300.578	176.561	238.570	1192.848
6	615.000	610.000	5.000	93.993	0.000	0.000	0.000	0.000	463.995	300.578	382.287	1911.433
7	620.000	615.000	5.000	110.387	0.000	0.000	0.000	0.000	643.169	463.995	553.582	2767.910
8	625.000	620.000	5.000	125.245	0.000	0.000	0.000	0.000	789.565	643.169	716.367	3581.835
9	630.000	625.000	5.000	130.526	0.000	0.000	0.000	0.000	902.957	789.565	846.261	4231.305
10	635.000	630.000	5.000	128.159	0.000	0.000	0.000	0.000	942.804	902.957	922.881	4614.403
11	640.000	635.000	5.000	153.119	0.000	0.000	0.000	0.000	936.205	942.804	939.505	4697.523
12	645.000	640.000	5.000	154.505	0.000	0.000	0.000	0.000	957.508	936.205	946.857	4734.283
13	650.000	645.000	5.000	153.722	0.000	0.000	0.000	0.000	974.925	957.508	966.217	4831.083
14	655.000	650.000	5.000	184.279	0.000	0.000	0.000	0.000	1061.185	974.925	1018.055	5090.275
15	660.000	655.000	5.000	228.214	0.000	0.000	0.000	0.000	1098.160	1061.185	1079.673	5398.363
16	665.000	660.000	5.000	241.073	0.000	0.000	0.000	0.000	1121.460	1098.160	1109.810	5549.050
17	670.000	665.000	5.000	242.806	0.000	0.000	0.000	0.000	1153.289	1121.460	1137.375	5686.873
18	675.000	670.000	5.000	244.513	0.000	0.000	0.000	0.000	1174.606	1153.289	1163.948	5819.738
19	680.000	675.000	5.000	243.957	0.000	0.000	0.000	0.000	1131.450	1174.606	1153.028	5765.140
20	685.000	680.000	5.000	240.397	0.000	0.000	0.000	0.000	1110.199	1131.450	1120.825	5604.123
21	690.000	685.000	5.000	240.418	0.000	0.000	0.000	0.000	1108.465	1110.199	1109.332	5546.660
22	695.000	690.000	5.000	240.418	0.000	0.000	0.000	0.000	1098.013	1108.465	1103.239	5516.195
23	700.000	695.000	5.000	235.210	0.000	0.000	0.000	0.000	1100.942	1098.013	1099.478	5497.388
24	705.000	700.000	5.000	234.782	0.000	0.000	0.000	0.000	1105.503	1100.942	1103.223	5516.113
25	710.000	705.000	5.000	236.477	0.000	0.000	0.000	0.000	1116.689	1105.503	1111.096	5555.480
26	715.000	710.000	5.000	235.272	0.000	0.000	0.000	0.000	1109.445	1116.689	1113.067	5565.335
27	720.000	715.000	5.000	234.212	0.000	0.000	0.000	0.000	1059.783	1109.445	1084.614	5423.070
28	725.000	720.000	5.000	233.153	0.000	0.000	0.000	0.000	980.104	1059.783	1019.944	5099.718
29	730.000	725.000	5.000	232.041	0.000	0.000	0.000	0.000	928.220	980.104	954.162	4770.810
30	735.000	730.000	5.000	230.249	0.000	0.000	0.000	0.000	961.003	928.220	944.612	4723.058
31	740.000	735.000	5.000	228.456	0.000	0.000	0.000	0.000	928.727	961.003	944.865	4724.325
32	745.000	740.000	5.000	226.663	0.000	0.000	0.000	0.000	859.775	928.727	894.251	4471.255
33	750.000	745.000	5.000	224.878	0.000	0.000	0.000	0.000	825.067	859.775	842.421	4212.105
34	755.000	750.000	5.000	223.110	0.000	0.000	0.000	0.000	816.785	825.067	820.926	4104.630
35	760.000	755.000	5.000	221.342	0.000	0.000	0.000	0.000	865.954	816.785	841.370	4206.848
36	765.000	760.000	5.000	219.687	0.000	0.000	0.000	0.000	912.287	865.954	889.121	4445.603
37	770.000	765.000	5.000	218.262	0.000	0.000	0.000	0.000	944.322	912.287	928.305	4641.523
38	775.000	770.000	5.000	217.112	0.000	0.000	0.000	0.000	966.390	944.322	955.356	4776.780
39	780.000	775.000	5.000	215.947	0.000	0.000	0.000	0.000	966.933	966.390	966.662	4833.308
40	785.000	780.000	5.000	214.782	0.000	0.000	0.000	0.000	988.389	966.933	977.661	4888.305
41	790.000	785.000	5.000	213.875	0.000	0.000	0.000	0.000	993.193	988.389	990.791	4953.955
42	795.000	790.000	5.000	213.507	0.000	0.000	0.000	0.000	990.338	993.193	991.766	4958.828
43	800.000	795.000	5.000	213.133	0.000	0.000	0.000	0.000	964.443	990.338	977.391	4886.953
44	805.000	800.000	5.000	213.133	0.000	0.000	0.000	0.000	929.775	964.443	947.109	4735.545
45	810.000	805.000	5.000	215.468	0.000	0.000	0.000	0.000	922.949	929.775	926.362	4631.810
46	815.000	810.000	5.000	217.801	0.000	0.000	0.000	0.000	982.398	922.949	952.674	4763.368
47	820.000	815.000	5.000	233.272	0.000	0.000	0.000	0.000	1051.413	982.398	1016.906	5084.528
48	825.000	820.000	5.000	254.619	0.000	0.000	0.000	0.000	1044.787	1051.413	1048.100	5240.500
49	830.000	825.000	5.000	252.480	0.000	0.000	0.000	0.000	1083.034	1044.787	1063.911	5319.553
50	835.000	830.000	5.000	250.313	0.000	0.000	0.000	0.000	1027.284	1083.034	1055.159	5275.795
51	840.000	835.000	5.000	248.140	0.000	0.000	0.000	0.000	952.110	1027.284	989.697	4948.485
52	845.000	840.000	5.000	245.966	0.000	0.000	0.000	0.000	901.949	952.110	927.030	4635.148
53	850.000	845.000	5.000	243.793	0.000	0.000	0.000	0.000	948.731	901.949	925.340	4626.700
54	855.000	850.000	5.000	241.648	0.000	0.000	0.000	0.000	994.912	948.731	971.822	4859.108
55	860.000	855.000	5.000	239.503	0.000	0.000	0.000	0.000	999.557	994.912	997.235	4986.173
56	865.000	860.000	5.000	237.350	0.000	0.000	0.000	0.000	1029.944	999.557	1014.751	5073.753
57	870.000	865.000	5.000	235.194	0.000	0.000	0.000	0.000	1045.095	1029.944	1037.520	5187.598
58	875.000	870.000	5.000	233.042	0.000	0.000	0.000	0.000	1094.725	1045.095	1069.910	5349.550
59	880.000	875.000	5.000	230.896	0.000	0.000	0.000	0.000	1147.177	1094.725	1120.951	5604.755
60	885.000	880.000	5.000	228.750	0.000	0.000	0.000	0.000	1162.049	1147.177	1154.613	5773.065
61	890.000	885.000	5.000	226.606	0.000	0.000	0.000	0.000	1122.303	1162.049	1142.176	5710.880
62	895.000	890.000	5.000	224.466	0.000	0.000	0.000	0.000	1038.458	1122.303	1080.381	5401.903
63	900.000	895.000	5.000	222.326	0.000	0.000	0.000	0.000	958.094	1038.458	998.276	4991.380
64	905.000	900.000	5.000	220.187	0.000	0.000	0.000	0.000	837.068	958.094	897.581	4487.905
65	910.000	905.000	5.000	218.047	0.000	0.000	0.000	0.000	814.862	837.068	825.965	4129.825
66	915.000	910.000	5.000	215.907	0.000	0.000	0.000	0.000	826.463	814.862	820.663	4103.313
67	920.000	915.000	5.000	118.108	0.000	0.000	0.000	0.000	837.137	826.463	831.800	4159.000
68	925.000	920.000	5.000	116.178	0.000	0.000	0.000	0.000	823.191	837.137	830.164	4150.820
69	930.000	925.000	5.000	114.573	0.000	0.000	0.000	0.000	832.451	823.191	827.821	4139.105

Filling Report

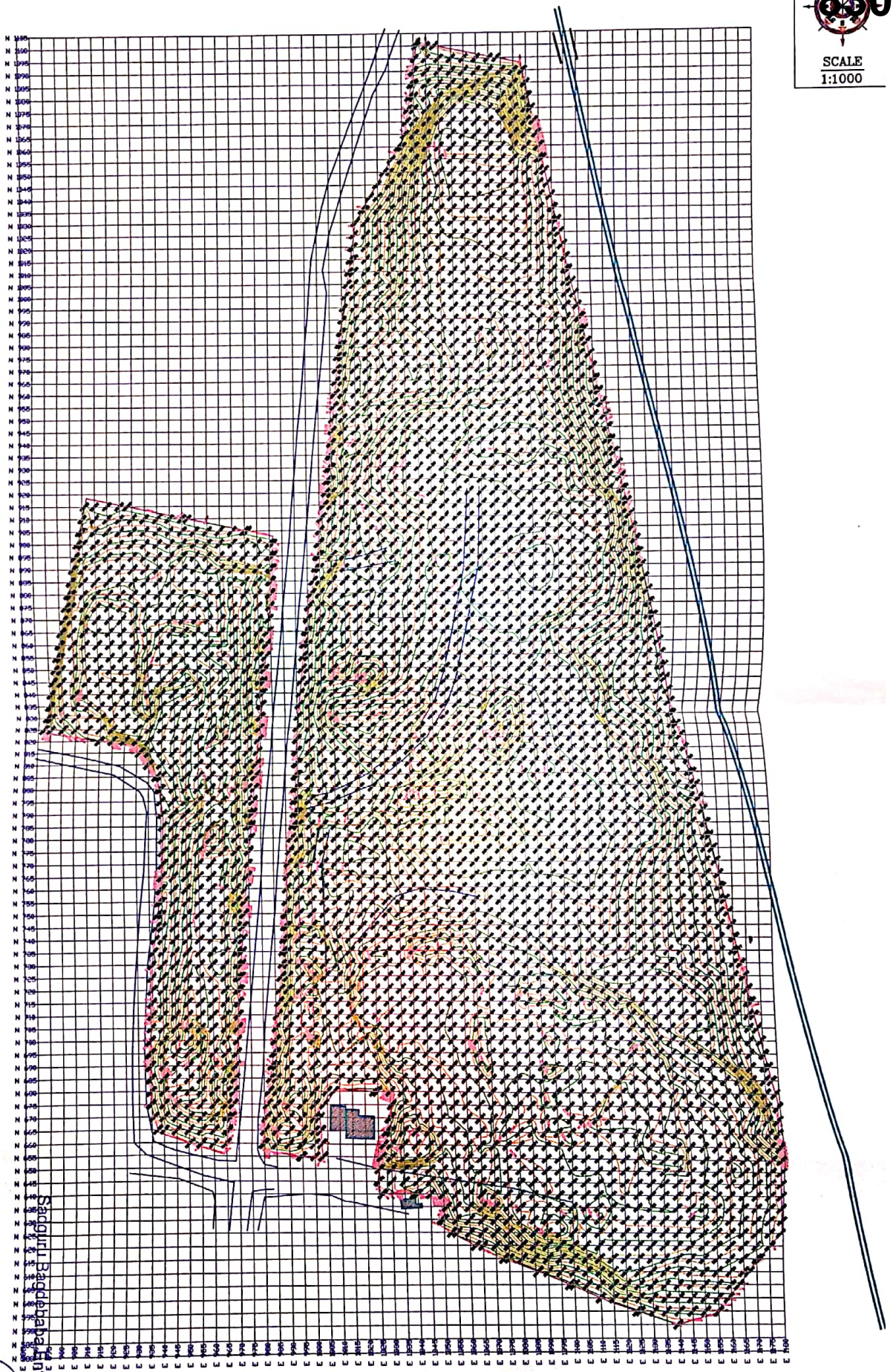
Sl. No.	Section From	Previous Section	Difference	Width	Cutting Volume				Filling Volume			
					Area Sq. Meters	Previous Area	Average Sq. Meters	Volume Cubic Meters	Area Sq. Meters	Previous Area	Average Sq. Meters	Volume Cubic Meters
70	935.000	930.000	5.000	112.968	0.000	0.000	0.000	0.000	835.709	832.451	834.080	4170.400
71	940.000	935.000	5.000	111.362	0.000	0.000	0.000	0.000	799.915	835.709	817.812	4089.060
72	945.000	940.000	5.000	109.783	0.000	0.000	0.000	0.000	759.946	799.915	779.931	3899.653
73	950.000	945.000	5.000	108.263	0.000	0.000	0.000	0.000	731.743	759.946	745.845	3729.223
74	955.000	950.000	5.000	106.743	0.000	0.000	0.000	0.000	651.849	731.743	691.796	3458.980
75	960.000	955.000	5.000	105.223	0.000	0.000	0.000	0.000	557.471	651.849	604.660	3023.300
76	965.000	960.000	5.000	103.721	0.000	0.000	0.000	0.000	539.799	557.471	548.635	2743.175
77	970.000	965.000	5.000	102.219	0.000	0.000	0.000	0.000	531.440	539.799	535.620	2678.098
78	975.000	970.000	5.000	100.625	0.000	0.000	0.000	0.000	538.439	531.440	534.940	2674.698
79	980.000	975.000	5.000	98.924	0.000	0.000	0.000	0.000	534.924	538.439	536.682	2683.408
80	985.000	980.000	5.000	97.189	0.000	0.000	0.000	0.000	530.489	534.924	532.707	2663.533
81	990.000	985.000	5.000	95.407	0.000	0.000	0.000	0.000	551.334	530.489	540.912	2704.558
82	995.000	990.000	5.000	93.609	0.000	0.000	0.000	0.000	553.165	551.334	552.250	2761.248
83	1000.000	995.000	5.000	91.720	0.000	0.000	0.000	0.000	531.245	553.165	542.205	2711.025
84	1005.000	1000.000	5.000	89.868	0.000	0.000	0.000	0.000	519.849	531.245	525.547	2627.735
85	1010.000	1005.000	5.000	88.051	0.000	0.000	0.000	0.000	539.793	519.849	529.821	2649.105
86	1015.000	1010.000	5.000	86.234	0.000	0.000	0.000	0.000	551.421	539.793	545.607	2728.035
87	1020.000	1015.000	5.000	84.416	0.000	0.000	0.000	0.000	560.669	551.421	556.045	2780.225
88	1025.000	1020.000	5.000	82.600	0.000	0.000	0.000	0.000	573.816	560.669	567.243	2836.213
89	1030.000	1025.000	5.000	80.783	0.000	0.000	0.000	0.000	591.109	573.816	582.463	2912.313
90	1035.000	1030.000	5.000	64.585	0.000	0.000	0.000	0.000	564.828	591.109	577.969	2889.843
91	1040.000	1035.000	5.000	59.466	0.000	0.000	0.000	0.000	552.071	564.828	558.450	2792.248
92	1045.000	1040.000	5.000	57.864	0.000	0.000	0.000	0.000	550.207	552.071	551.139	2755.695
93	1050.000	1045.000	5.000	56.262	0.000	0.000	0.000	0.000	550.440	550.207	550.324	2751.618
94	1055.000	1050.000	5.000	54.661	0.000	0.000	0.000	0.000	543.510	550.440	546.975	2734.875
95	1060.000	1055.000	5.000	53.059	0.000	0.000	0.000	0.000	490.445	543.510	516.978	2584.888
96	1065.000	1060.000	5.000	51.457	0.000	0.000	0.000	0.000	436.249	490.445	463.347	2316.735
97	1070.000	1065.000	5.000	49.855	0.000	0.000	0.000	0.000	383.740	436.249	409.995	2049.973
98	1075.000	1070.000	5.000	48.271	0.000	0.000	0.000	0.000	330.741	383.740	357.241	1786.203
99	1080.000	1075.000	5.000	46.711	0.000	0.000	0.000	0.000	269.251	330.741	299.996	1499.980
100	1085.000	1080.000	5.000	45.150	0.000	0.000	0.000	0.000	180.515	269.251	224.883	1124.415
101	1090.000	1085.000	5.000	43.589	0.000	0.000	0.000	0.000	84.592	180.515	132.554	662.768
102	1095.000	1090.000	5.000	32.547	0.000	0.000	0.000	0.000	16.204	84.592	50.398	251.990
103	1100.000	1095.000	5.000	7.056	0.000	0.000	0.000	0.000	3.914	16.204	10.059	50.295
104	1101.379	1100.000	1.379	0.026	0.000	0.000	0.000	0.000	0.000	3.914	1.957	2.699
								0.000				399867.73

शहर अभियंता
महानगरपालिका,अमरावती

Sadguru Bagadebaba Enterprises

Proprietor

DETAIL CONTOUR SURVEY
AT:-AMRAVATI,



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SCALE
1:1000

Sadguru Bapdebaba Enterprises
Proprietor

-TRUE COPY-

TOTAL PLOT AREA=63413+13179=76592 SQ.M
TOTAL PLOT AREA=71.65.80R.

LEGEND

Sr. No.	DESCRIPTION	
1	BOUNDRY	
2	COUNTOUR-0.5	

CONTOUR INTERVAL 0.5M
GRID INTERVAL 5X5m

CLIENT :-

TITLE:-DETAIL SURVEY BY
AT:- AMRAVATI

KARTIK SUR
SURVEYORS & CO

MaRS Planning & Engineering Services Pvt. Ltd.
www.marsconsultancy.com
E-mail: amc.pmcmars@gmail.com

Ref: MaRS/PMC/AMC/0055-R/2019-20

Dated: 25th November 2019

To,
City Engineer,
Amravati Municipal Corporation
Rajkamal Square, Amravati,
Maharashtra-444601

Subject: Earmarking the site area of legacy waste for the "work of conducting Scientific Dumpsite Land Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati." Under Amravati Municipal Corporation, Amravati (Maharashtra).

Reference: i. Verification of total station survey report and drawing for the legacy waste site area
ii. agreement between M/S Sadguru Bagadebaba Enterprises In JV with PH Jadhav AND Amravati Municipal Corporation for subject work.

Sir,
As per the verification of total station survey report (Conducted in Oct-2019) and drawing for the site area for the subject work; it is derived that total quantity of legacy waste of approx.131946.20 m^3 fall under the area of 30708.66 Sqm till the chainage of 800 m from base chainage of 590 m.

As per clause 3.ii of agreement cited (ii) above; Earmarked area is of 30708.66 Sqm (rounded to 3.1 Ha) to be reclaimed for approx.1.31 Lakh m^3quantity through bio-remediation and biomining of legacy waste.

Regards
Project Manager,

Mars Planning & Engineering Services Pvt. Ltd.

M/S MaRS Planning & Engineering Services Pvt. Ltd.

C/c to:-
For information;

(1) Medical Officer (Sanitation), Amravati MC.
(2) Dy.MC (Gen), Amravati MC

CE.

Principal

-TRUE COPY-

ANNEXURE A-16

PHOTOGRAPHS SHOWING THE WORK OF FORMATION OF HEAPS AND SPREADING OF BIO-CULTURE

5 Phasewise screening with Power screens and land reclaimation through Biomining

-TRUE COPY-

ANNEXURE A-17

MaRs Planning & Engineering Services Pvt. Ltd.
E-mail: amc.pmcmars@gmail.com

Ref: MaRS/PMC/AMC/0099/2020-21 Dated: 12th Oct 2020

To,

Commissioner,
Amravati Municipal Corporation
Rajkamal Square, Amravati,
Maharashtra-444601

Subject: Submission of total station survey report conducted for legacy waste at Sukhali compost depot, Amravati.

Reference: 1. Survey conducted in 4th Oct 2020

2.1st Survey conducted in Oct 2019

Sir,

With regard to above subject; We herewith submit total station survey report conducted to waste at Sukhali compost depot, Amravati.

Survey conducted on 3rd and 4th Oct 2020. Following is the summary of report.

1. Total area under legacy waste is 7.99 Ha with existing total quantity of legacy waste on site is 437070.31 m3 on the date of survey.

2. Quantity of legacy waste on right side of Akoli ring road is 365640.1 m3 under area of 5.3 Ha.

3. Quantity of legacy waste on left side of Akoli ring road is 70423.8 m3 under area of 1.4 Ha

4. Quantity of legacy waste cleaned is 63860.65 m3 under the area of 1.3 Ha. Pending quantity to be cleaned is 72020.92 m3 (Total quantity of 135881 m3 and total area of 3.1 Ha) till chainage of 800 m with reference to first survey under reference no. 2 cited above.

It is recommended to AMC to instruct contractor accordingly to complete bio-mining for the earmarked site from chainage of 590 m to 800 m covering area of 3.1 Ha at the earliest.

This survey has been jointly conducted and verified (report) by Amravati Municipal Corporation and Project Management Consultant.

For your information and further necessary actions please,

Enclosed: Quantity report and drawing for total station survey of Sukhali compost depot.

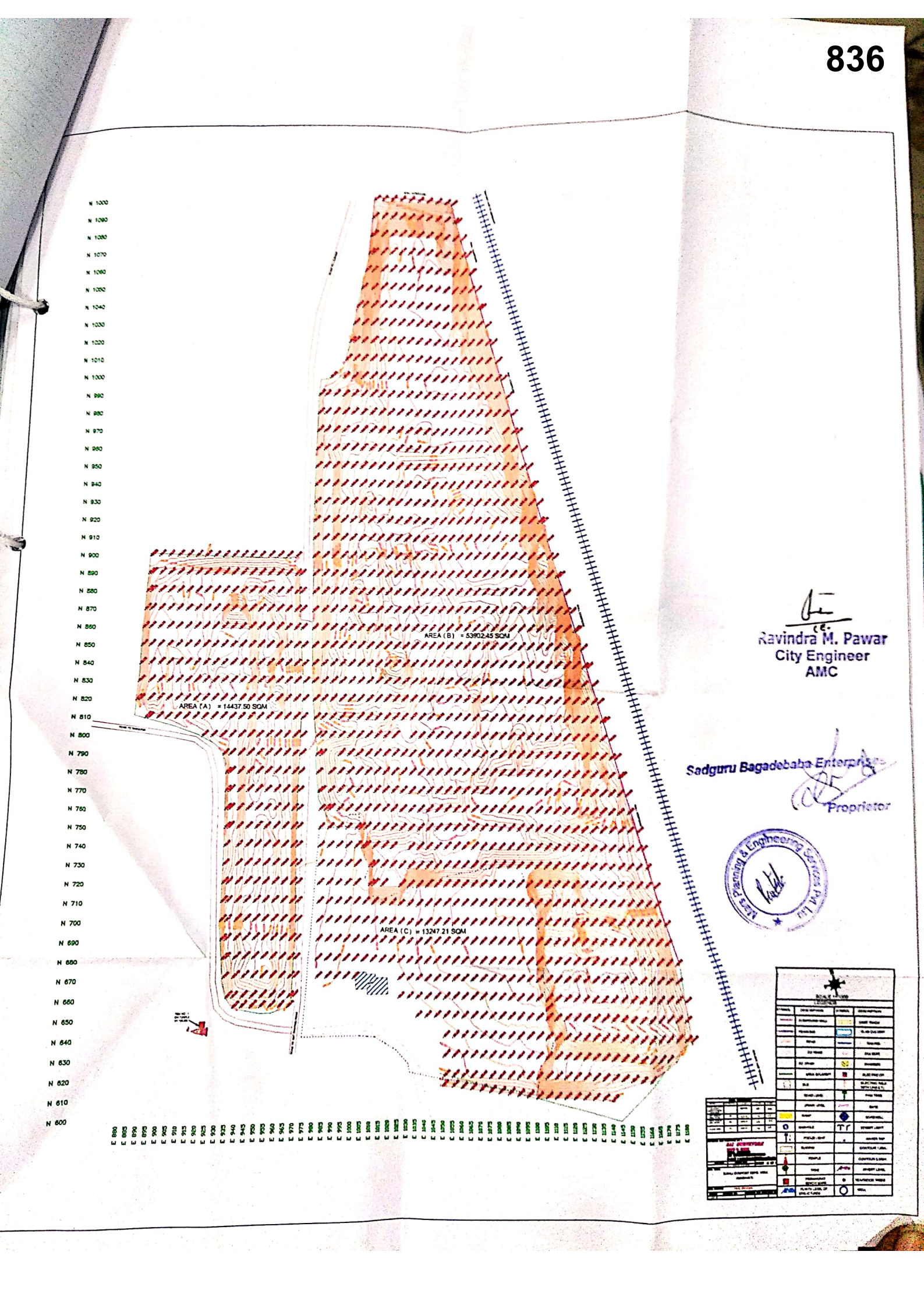
Sd/-
regards
Project Manager,

M/S MaRS Planning & Engineering Services Pvt. Ltd.

Copy to:

1. Shri. Pawar, City Engg, Amravati MC

2. Shri. Pawade, Asst Engg, Amravati MC.



Ravindra M. Pawar
City Engineer
AMC

Sadguru Bagadebaba Enterprise
Proprietor

Quantity Statement of clean and remain legacy waste at sukali compost deopt. Amravati.

Sr. No.	Section from (Chainage)	Previous section	Difference in m	width in m	Reading of 1st survey report for filling volume			
					Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum
1	2	3	4	5	6	7	8	9
1	590	0	0	0	0	0	0	
2	600	590	10	18.59	34.975	0	17.4875	174.875
3	610	600	10	37.181	183.181	34.975	109.078	1090.78
4	620	610	10	64.486	344.0425	183.181	263.61175	2636.1175
5	630	620	10	107.488	681.06	344.0425	512.55125	5125.5125
6	640	630	10	154.558	1026.131	681.06	853.5955	8535.955
7	650	640	10	131.598	1452.924	1026.131	1239.5275	12395.275
8	660	650	10	130.297	1222.205	1452.924	1337.5645	13375.645
9	670	660	10	128.994	1221.973	1222.205	1222.089	12220.89
10	680	670	10	127.692	1153.758	1221.973	1187.8655	11878.655
11	690	680	10	136.945	1112.0275	1153.758	1132.89275	11328.9275
12	700	690	10	122.326	1206.998	1112.0275	1159.51275	11595.1275
13	710	700	10	140.888	1284.398	1206.998	1245.698	12456.98
14	720	710	10	120.818	1191.8035	1284.398	1238.10075	12381.0075
15	730	720	10	138.333	404.7585	1191.8035	798.281	7982.81
16	740	730	10	35.864	130.615	404.7585	267.68675	2676.8675
17	750	740	10	48.368	141.752	130.615	136.1835	1361.835
18	760	750	10	42.698	143.833	141.752	142.7925	1427.925
19	770	760	10	36.789	214.1795	143.833	179.00625	1790.0625
20	780	770	10	101.426	203.819	214.1795	208.99925	2089.9925
21	790	780	10	55.486	139.402	203.819	171.6105	1716.105
22	800	790	10	63.124	188.643	139.402	164.0225	1640.225
							Total (A)	**135881.57**

Sadguru Bagadebaba Enterprises
Proprietor

Mars Planning & Engineering Services Pvt. Ltd.

Ravindra M. Pawar
City Engineer
AMC

838

Reading of 2nd survey report for Cutting volume					Balance filling volume			
width in m	Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum	Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum
10	11	12	13	14	15	16	17	18
0	0	0	0	0	0	0	0	0
5	20	0	10	100	14.975	0	7.4875	74.875
8	100	20	60	600	83.181	14.975	49.078	490.78
61.9	112.21	100	106.105	1061.05	231.8325	83.181	157.50675	1575.0675
70.23	453.23	112.21	282.72	2827.2	227.83	231.8325	229.83125	2298.3125
84.24	493.12	453.23	473.175	4731.75	533.011	227.83	380.4205	3804.205
86.31	455.23	493.12	474.175	4741.75	997.694	533.011	765.3525	7653.525
80	732.23	455.23	593.73	5937.3	489.975	997.694	743.8345	7438.345
128.35	489.35	732.23	610.79	6107.9	732.623	489.975	611.299	6112.99
127	545.32	489.35	517.335	5173.35	608.438	732.623	670.5305	6705.305
125.56	634.65	545.32	589.985	5899.85	477.3775	608.438	542.90775	5429.0775
123.87	623.45	634.65	629.05	6290.5	583.548	477.3775	530.46275	5304.6275
122	634.23	623.45	628.84	6288.4	650.168	583.548	616.858	6168.58
116.31	623.98	634.23	629.105	6291.05	567.8235	650.168	608.99575	6089.9575
29	201.23	623.98	412.605	4126.05	203.5285	567.8235	385.676	3856.76
23.83	167.23	201.23	184.23	1842.3	-36.615	203.5285	83.45675	834.5675
22.31	201.21	167.23	184.22	1842.2	-59.458	-36.615	-48.0365	-480.365
0	0	0	0	0	143.833	141.752	142.7925	1427.925
0	0	0	0	0	214.1795	143.833	179.00625	1790.0625
0	0	0	0	0	203.819	214.1795	208.99925	2089.9925
0	0	0	0	0	139.402	203.819	171.6105	1716.105
0	0	0	0	0	188.643	139.402	164.0225	1640.225
			Total (B)	63860.65			Total ©	72020.92

B - Upto date Quantity clean

C - Quantity remain to be clean

Sadguru Bagadebaba Enterprises

Proprietor

Mars Planning & Engineering Services Pvt. Ltd.

Ravindra M. Pawar
City Engineer
AMC

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ANNEXURE A-18

MaRs Planning & Engineering Services Pvt. Ltd.

E-mail: amc.pmcmars@gmail.com

Ref: MaRS/PMC/AMC/00104/2020-21 Dated: 15th Dec 2020

To,

City Engineer,
Amravati Municipal Corporation
Rajkamal Square, Amravati,
Maharashtra-444601

Subject: Recommendations of total station survey report conducted for legacy waste at Sukhali compost depot, Amravati.

Reference: 1. Survey conducted in 3rd and 4th December 2020

2. Survey report submitted by contractor M/S Sadguru Bagadebaba in JV with M/s P.H. Jadhav dated on 15 Dec 2020.

3. Instructions by Amravati Municipal Corporation regarding recommendations on survey report

4 1st Survey conducted in Oct 2019.

Sir,

With regard to above subject; We herewith submit recommendations on total station survey report submitted for legacy waste at Sukhali compost depot, Amravati.

Survey conducted on 3rd and 4th Dec 2020. Following is the summary of report.

1. Quantity of legacy waste cleaned is 101325.8 m3 under the area of 2.73 Ha. Pending quantity to be cleaned is 33934.45 m3 (Total quantity of 135881 m3 and total area of 3.1 Ha) till chainage of 800 m with reference to first survey under reference no. 4 cited above.

It is recommended to AMC to instruct contractor accordingly, to complete bio-mining for the earmarked site from chainage of 590 m to 800 m covering area of 3.1 Ha and total quantity of 135881 m3 at the earliest as per the survey report referred cited 4 above.

This survey has been jointly conducted (Contractor, AMC and PMC) and verified (report) by Amravati Municipal Corporation and Project Management Consultant.

For your information and further necessary actions please.

Sd/-
regards
Project Manager,

M/S MaRS Planning & Engineering Services Pvt. Ltd.

Copy to:

1. Shri. Pawade, Asst Engg, Amravati MC.

Quantity Statement of clean and remain legacy waste at sukali compost deopt. Amravati.

Sr. No.	Section from (Chainage)	Previous section	Difference in m	width in m	Reading of 1st survey report for filling volume			
					Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum
1	2	3	4	5	6	7	8	9
1	590	0	0	0	0	0	0	
2	600	590	10	18.59	34.975	0	17.4875	174.875
3	610	600	10	37.181	183.181	34.975	109.078	1090.78
4	620	610	10	64.486	344.0425	183.181	263.61175	2636.1175
5	630	620	10	107.488	681.06	344.0425	512.55125	5125.5125
6	640	630	10	154.558	1026.131	681.06	853.5955	8535.955
7	650	640	10	131.598	1452.924	1026.131	1239.5275	12395.275
8	660	650	10	130.297	1222.205	1452.924	1337.5645	13375.645
9	670	660	10	128.994	1221.973	1222.205	1222.089	12220.89
10	680	670	10	127.692	1153.758	1221.973	1187.8655	11878.655
11	690	680	10	136.945	1112.0275	1153.758	1132.89275	11328.9275
12	700	690	10	122.326	1206.998	1112.0275	1159.51275	11595.1275
13	710	700	10	140.888	1284.398	1206.998	1245.698	12456.98
14	720	710	10	120.818	1191.8035	1284.398	1238.10075	12381.0075
15	730	720	10	138.333	404.7585	1191.8035	798.281	7982.81
16	740	730	10	35.864	130.615	404.7585	267.68675	2676.8675
17	750	740	10	48.368	141.752	130.615	136.1835	1361.835
18	760	750	10	42.698	143.833	141.752	142.7925	1427.925
19	770	760	10	36.789	214.1795	143.833	179.00625	1790.0625
20	780	770	10	101.426	203.819	214.1795	208.99925	2089.9925
21	790	780	10	55.486	139.402	203.819	171.6105	1716.105
22	800	790	10	63.124	188.643	139.402	164.0225	1640.225
		800	10	64.125	196.5	188.643	192.5715	1925.715
							Total (A)	135881.57

Sadguru Bagadebaba Enterprises

Ravi

Proprietor

Reading of 3rd survey report for Cutting volume					Balance filling volume			
width in m	Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum	Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum
10	11	12	13	14	15	16	17	18
0	0	0	0	0	0	0	0	0
45	9.93	0	4.965	49.65	25.045	0	12.5225	125.225
95	207.45	9.93	108.69	1086.9	-24.269	25.045	0.388	3.88
155	444.45	207.45	325.95	3259.5	-100.4075	-24.269	-62.33825	-623.3825
125.5	654.54	444.45	549.495	5494.95	26.52	-100.4075	-36.94375	-369.4375
145.6	768.32	654.54	711.43	7114.3	257.811	26.52	142.1655	1421.655
154.75	803.34	768.32	785.83	7858.3	649.584	257.811	453.6975	4536.975
145	773.34	803.34	788.34	7883.4	448.865	649.584	549.2245	5492.245
203	844.23	773.34	808.785	8087.85	377.743	448.865	413.304	4133.04
195	824.45	844.23	834.34	8343.4	329.308	377.743	353.5255	3535.255
201	802.23	824.45	813.34	8133.4	309.7975	329.308	319.55275	3195.5275
195	777.34	802.23	789.785	7897.85	-429.658	309.7975	369.72775	3697.2775
185	734.34	777.34	755.84	7558.4	550.058	429.658	489.858	4898.58
188	683.23	734.34	708.785	7087.85	508.5735	550.058	529.31575	5293.1575
182	606.21	683.23	644.72	6447.2	-201.4515	508.5735	153.561	1535.61
182	575.34	606.21	590.775	5907.75	-444.725	-201.4515	-323.08825	-3230.8825
185	503.32	575.34	539.33	5393.3	-361.568	-444.725	-403.1465	-4031.465
0	203.34	503.32	353.33	3533.3	-59.507	-361.568	-210.5375	-2105.375
0	0	203.34	101.67	1016.7	214.1795	-59.507	77.33625	773.3625
0	0	0	0	0	203.819	214.1795	208.99925	2089.9925
0	0	0	0	0	139.402	203.819	171.6105	1716.105
0	0	0	0	0	188.643	139.402	164.0225	1640.225
0	0	0	0	0	196.5	188.643	192.5715	1925.715
			Total (B)	101325.8			Total ©	33934.45

B - Upto date Quantity clean

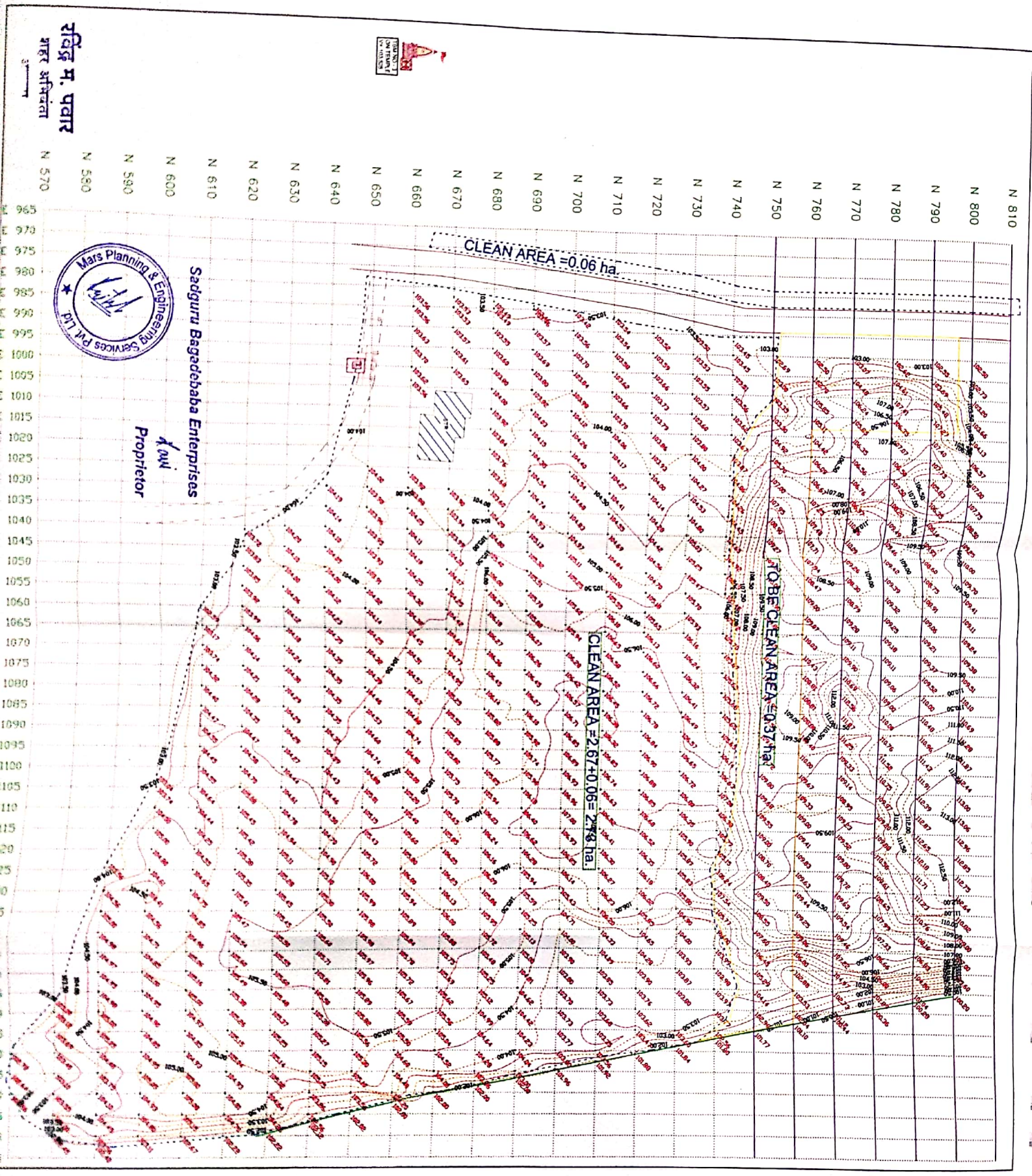
C - Quantity remain to be clean

Mars Planning & Engineering Services Pvt. Ltd.

Sadguru Bagadebaba Enterprises

Proprietor

842



Principal

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ANNEXURE A-19

MaRS Planning & Engineering Services Pvt. Ltd.
www.marsconsultancy.com
E-mail: amc.pmcmars@gmail.com

Ref: MaRS/PMC/AMC/00107/2020-21

Dated: 02nd January 2021

To,
The Municipal Commissioner,
Amravati Municipal Corporation
Rajkamal Square, Amravati,
Maharashtra-444601

Subject: Recommendation on total station survey report (conducted on 23rd Dec 2020) conducted for legacy waste at Sukhali compost depot, Amravati.

Reference:
1. 1st Survey conducted in Oct 2019
2. Total Station Survey Conducted in 23rd Dec 2020.
3. Instructions by Amravati Municipal Corporation regarding recommendations on survey report.

Sir,

With regard to above subject; We herewith submit recommendations on total station survey report submitted for legacy waste at Sukhali compost depot, Amravati.

Survey conducted on 23rd Dec 2020. Following is the summary of report.

1. With reference to first survey under reference no. 1 cited above Quantity to be cleaned is 135881 m^3 under earmarked area of 3.1 Ha till chainage of 800 m.
2. With reference to survey conducted on 23rd Dec 2020 under reference no.3 cited above; Quantity of legacy waste cleaned is 144467 m^3 under the area of 3.28 Ha.

This is to inform you that biomining works has been completed as per the tender quantity.

This survey has been jointly conducted (Contractor, AMC and PMC) and verified (report) by Amravati Municipal Corporation and Project Management Consultant.

For your information and further necessary actions please.

Regards

Project Manager

Mars Planning & Engineering Services Pvt. Ltd.

M/S MaRS Planning & Engineering Services Pvt. Ltd.

आपला अर्ज प्राप्त दिनांक 4-1-21

बांधकाम विभाग
महानगरपालिका, अमरावती

Copy to:
1. Shri, Ravindra Pawar, City Engg, Amravati MC.
2. Shri. Pawade, Asst Engg, Amravati MC.
3. Dr. Seema Netam, Medical Officer (Sanitation), Amravati MC.

04/01/21
आवक लिपिक
म.न.पा. अमरावती
स्वच्छता विभाग

HO. : 601, Sur Mount, Opp. ISCON Mega Mall, S.G Highway, Ahmedabad - 380 015, Gujarat, INDIA| Phone : +91 79 2686 0890 | Tele Fax : +91 79 2686 0130 | E-mail : info@marsconsultancy.com

आपला दि. 04/01/2021 रोजी मिळाला

सा.प्र.विभाग
महानगरपालिका, अमरावती

-TRUE COPY-

REVISED DETAILED PROJECT REPORT

For Conducting Bio-remediation and Bio - mining of Legacy Waste at Sukali Compost Depot for Solid Waste Management in Amravati Municipal Corporation

Amravati

District-Amravati 444601

Submitted To

Swachh Maharashtra Mission
Maharashtra Urban Development Mission
C/0 MUINFRA, Ground Floor, CR-2
Building, Barrister Rajni Patel Road,
Nariman Point,
Mumbai- 400 021
Telephone : 022- 66157390
E-mail : director.smau@gmail.com

Submitted By

Amravati Municipal Corporation
Rajkamal Chowk,
Amravati, Maharashtra
Telephone : (+)**0721-2579292**
Telefax : (+)**0721-2673950**
E-mail : **amravaticorporation@yahoo.in**
website : http://www.amtcorp.org

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1. Introduction to the Project

1.1 Project background

1.1.1 Background of preparation of DPR for MSW in Amravati

Government of Maharashtra launched Swachcha Maharashtra Mission (SMM) for implementation of Swachcha Maharashtra Mission goals and objective in state of Maharashtra.

As part of SBM Mission objective, SMM as a nodal agency undertaken task of preparation of Detailed Project Report for all urban local bodies in Maharashtra under SBM (urban).

SMM appointed consultant for preparation of Detailed Project Report for Municipal Solid Waste Management for Amravati Municipal Corporation. DPR was prepared in consultation with ULB officials put for technical approval and administrative sanction to government of Maharashtra. Administrative sanction for the DPR with cost of Rs. 40.70 Cr provided by high power committee under Urban Administration Department Government of Maharashtra dated on 18th Nov 2018. Due to revision in biomining rates; Revised Technical sanction for DPR of Rs.37.97 Cr was received in November 2018 from Maharashtra Jeevan Pradhikaran (MJP).

1.1.2 Details of Approved DPR for MSW Amravati Municipal Corporation

Following table provides the details of approved DPR for MSW of Amravati Municipal Corporation.

Table 1-1 : Details of Approved DPR for MSW Amravati Municipal Corporation

Sr. No.	Description of item	Total Amount
A	Waste Processing	
1	Cost Estimates for civil works of dumping yard	4849003.00
2	Cost Estimates for civil works of MRF Shade	12845588.00
3	Cost Estimates for civil works of windrow platform	65490733.00
4	Cost Estimates for civil works of Bio gas plant	25590000.00
	Sub total (A)	**108775324.00**
B	Waste disposal	
5	Cost Estimates for civil works of Scientific landfill site	50076643.00
	Sub total (B)	50076643.00
C	Site development	
6	Cost Estimates for civil works of Security & Operating room	1162287.00
7	Cost Estimates for civil works of Entrance Gate	0
8	Cost Estimates for civil works of Toilets	754119.90
9	Cost Estimates for civil works of Drainage works	2267770.00
10	Cost Estimates for civil works of fencing works	0
11	Cost Estimates for civil works of Pavement works	2564327.00
12	Cost Estimates for Bio mining of old dumped waste	55416732.00
13	Cost Estimates for Green Belt Development	856153.00
14	Cost Estimates for Building Block	681696.00
15	Cost Estimates for fire safety works	165072.00
16	Cost Estimates for water supply works	1506255.00
17	Cost Estimates for Electricity Arrangement, Culture and safety equipments	2963064.00
18	GST (12%) (For Item 1+2+3+4+5+6+7+8+9+10+11+13+14+15+16)	20237349.00

Sr. No.	Description of item	Total Amount
	Sub total (C)	88574824.90
D	Plant & Machinery, Vehicle and Equipments	
19	Cost estimates for plant & Machinery, vehicle & equipments	122321759.00
	Sub total (D)	122321759.00
	Sub total (A+B+C+D)	369748550.90
E	Awareness and IEC	
20	For A-class Municipal Council = 1Cr. Or 5% of DPR Cost, whichever is less	10000000.00
21	Construction Material Testing Charges	9300.00
	Sub total (E)	**10009300.00**
	Grand Total	**379757850.90**
		37.97 Cr.

1.1.3 Estimation of quantity of Old Dumped Waste in approved DPR:

Existing dump site for Solid waste Amravati is situated in Sukhali Compost depot. During the preparation of DPR quantity of old dump waste calculated based on discussions with ULB officials and site visit. It was observed that 80 % of disposal site was covered with existing waste having average length of 321.82 m, width of 200m. and height of 2.05m. The quantity of waste dumped in this dumpsite was derived about 131945 Cum (i.e. 64257.02 tones considering bulk density 0.48 MT/Cum).

1.2 Need for the Revised DPR for Bio-remediation and Bio-mining of Legacy Waste

For implementation of approved DPR, Amravati Municipal Corporation issued model RFP as instructed by UD, Govt of Maharashtra, for conducting bioremediation and biomining of legacy waste at Sukhali compost depot.

AMC appointed Contractor for bioremediation and biomining of legacy waste at Sukhali compost depot was appointed in Sept 2019.

As per the scope of work total station survey was conducted in Oct 2019 for existing dump site of Sukhali Compost Depot. At the time of execution, as per the quantity survey report, it was observed that actual quantity of legacy waste is 4.0 Lakh Cum under the area of 6.5 Ha which was significantly more than approved quantity of DPR as 131945 Cum. Based on the actual quantity; area under legacy waste of approved quantity of 131945 Cum was earmarked as 3.1 Ha.

As per approved DPR; it is proposed to construction 200 TPD processing, treatment plant with RDF and windrow composting, Sanitary Landfill Site and Biomethanization plant at the Sukhali compost depot. To implement all components of approved DPR and comply the SWM rules 2016; total 8.5 Ha land is required including SLF construction.

Hence, For remaining quantity commissioner AMC instructed to prepare revised DPR and send request proposal for Urban Development Department Govt of Maharashtra.

Based on recent total station survey conducted in Oct 2020, total station survey actual quantity is about 5,00,000 Cum on land of 7.99 ha which include clear dumpsite and road land. Details have been enclosed in annexure.

1.2.1 Issues during implementation of bio-remediation and bio-mining of legacy waste as per earlier approved DPR

During the implementation of biomining works significant variation in the quantity of legacy waste observed based on quantity derived on total station survey and approved DPR. As per approved DPR quantity of legacy waste for bio mining is taken as 131945 Cum and in tender document it is mentioned that 90% earmark land will be reclaimed. At time of execution of bio mining work total station survey of said site conducted and land had been earmarked under quantity of 131945 Cum which is about 3.1 ha. This is earmarked land to be reclaimed through bioremediation and biomining is too less than that required for construction of construction of processing unit and SLF. Hence due to non availability of clear land, implementation of approved components such as MRF facility, windrow platforms, sanitary landfill site and biomethanization plant and thereby compliance of SWM rules 2016 is getting significantly delayed.

1.2.2 Background Ongoing NGT petition of Amravati Municipal Corporation for Legacy waste

Sukhali compost depot site as dump site is being in operation since last more than 25 years. Site is situated at western direction of Amravati city. Since Amravati city is expanding, issues pertaining to legacy waste have been escalated by surrounding residents nearby of Sukhali compost depot. Petition has been filed in Hon'ble National Green Tribunal against Amravati Municipal Corporation regarding environmental violations due to open dumping of MSW in sukhali compost depot. The case is under hearing with Hon'ble NGT (western bench) and AMC has been strictly instructed to conduct bio-remediation and biomining of legacy waste at the earliest. Other Hon'ble NGT instructed MPCB to enforce environmental compensation (EC) of Rs 48 Cr to Amravati Municipal Corporation for environmental violations due to legacy waste.

Hence to follow the directions of NGT and implement all components of approved DPR and comply SWM rules 2016; it is important to reclaim the entire land of legacy waste through bioremediation and bio-mining of legacy waste in Sukhali Compost Depot.

.

2. Details of Revised Proposal for Legacy Waste

2.1 Existing situation analysis

Existing dump site of municipal solid waste is situated at Sukhali compost Depot located at western part of Amravati. Total area of dump site is 9.35 Ha under survey no. 155, 156. Dump site is being in operation since last 25 years. Total area of Sukhali compost depot is 9.35 Ha under which land under legacy waste is 8.0 Ha. DP road of 60 m wide ROW Akoli ring road is passing through the existing dump site. Due to lack of processing and treatment facility; fresh waste is being dumped on existing site. Presently bioremediation and biomining of legacy waste is ongoing as per the approved DPR component.

Figure 2-1 : Existing situation

2.1.1 Location of Sukhali Compost Depot

Existing dump site of municipal solid waste is situated at Sukhali compost Depot located at western part of Amravati. Site is approximately 10 km away from city center location. Following figure provides the details of the location of legacy waste site, Sukhali Compost Depot.

Figure 2-2 : Location of dump site

2.1.2 Present status at Sukali Compost Depot

Amravati Municipal Corporation has appointed contractor in Sept 2019 for conducting Bioremediation and Biomining of legacy waste as per the RFP instructed by UD, Govt of Maharashtra. All the required NOCs has been obtained prior to commission of works. Renewal of authorization as per SWM Rules 2016 received from MPCB for Sukhali compost depot.

Works has commissioned from month of October 2019 with formation of trenches, hipping and spreading of bio-culture. Total station survey was conducted prior to execution of works. Phasewise trenches, formation of hips and spreading of bio-culture implemented. Screening machines (Power screens) deployed on site phasewise. At present work are ongoing and screening machines are deployed on the site. Till date more than 40% (1.3 Ha) of the earmarked site (3.1 Ha) has been reclaimed through bioremediation and biomining.

Figure 2-3 : Present status at Sukhali compost depot

<table>
<tr><td> </td><td> </td></tr>
<tr><td colspan="2">Conducting total station survey</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td colspan="2">Formation of trenches and hipping of legacy waste</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td>Spraying of bio-culture</td><td>Screening of legacy waste</td></tr>
</table>

2.2 Quantification of legacy waste at Sukali Compost Depot.

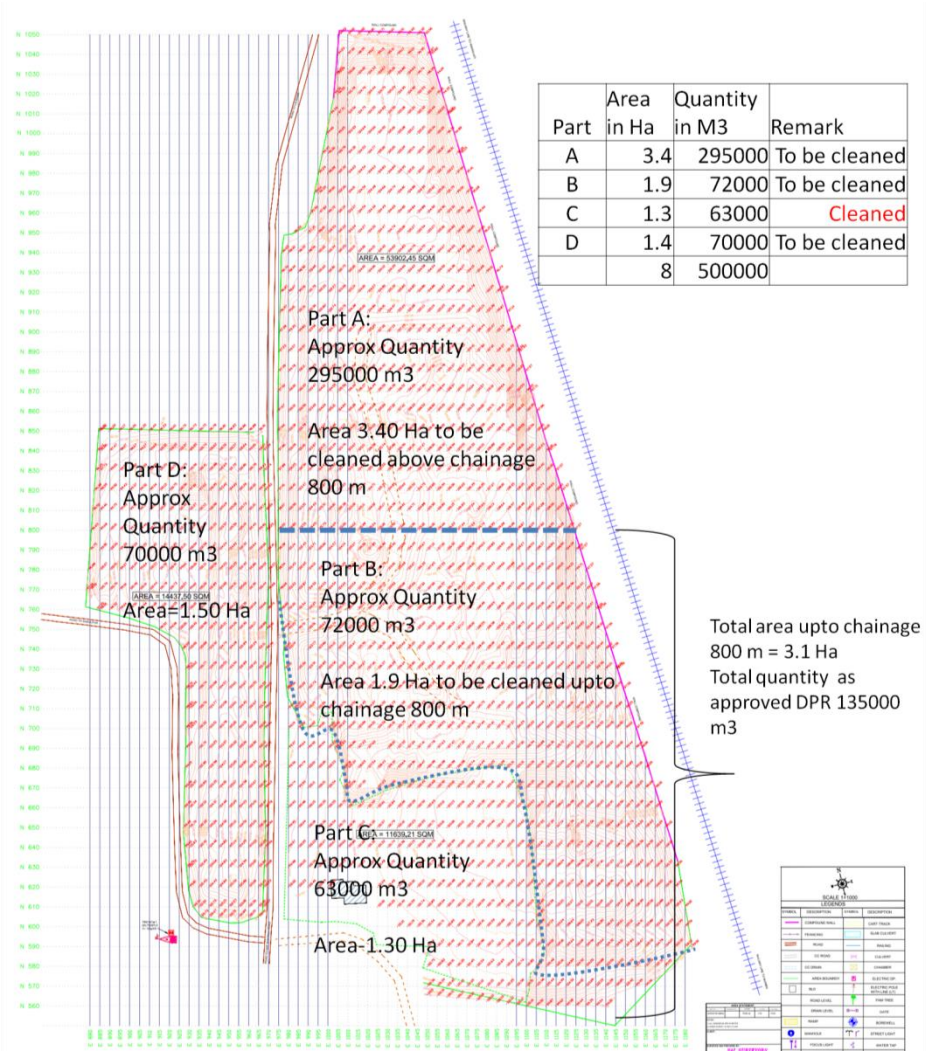
Total station survey conducted for entire site for assessment of existing situation and quantification of legacy waste on site as dated on 12th Oct 2020. Details of the total station survey report along with drawings have been enclosed in the annexure. Following are the summary of the quantification of legacy waste with respect to survey conducted on 12th Oct 2020.

1. Total area under legacy waste is 7.99 ha with existing total quantity of legacy waste on site is 437070.31 Cum.
2. Quantity of legacy waste on right side of akoli ring road is 365640. Cum under area of 5.3 ha.
3. Quantity of legacy waste on left side of akoli ring road is 70423.8 cum under area of 1.4 ha.
4. Quantity of legacy waste cleaned is 63860.65 Cum under area of 1.3 ha. Pending quantity to be cleaned 72020.92 Cum.

Above details are as on Oct 2020. At present, daily waste approx 250 MT being dumped at same site only in demarcated are at northern side of the dump site.

Following figure provides the summary of survey conducted for quantification of legacy waste.

Figure 2-4 : summary of quantification of legacy waste as per total station survey Oct 2020



Part	Area in Ha	Quantity in M3	Remark
A	3.4	295000	To be cleaned
B	1.9	72000	To be cleaned
C	1.3	63000	Cleaned
D	1.4	70000	To be cleaned
	8	500000	

2.3 Proposed Methodology for conducting bio-remediation and bio-mining of legacy waste at Sukali Compost Depot.

Bioremediation and bio-mining of existing and proposed legacy waste is being conducted as per the SWM Rules 2016 and CPCB Guidelines for the disposal of legacy waste 2019.

Following is the proposed methodology for conducting bio-remediation and bio-mining of legacy waste in Sukhali compost depot Amravati

Proposed Technology for Bio-remediation and Bio-mining

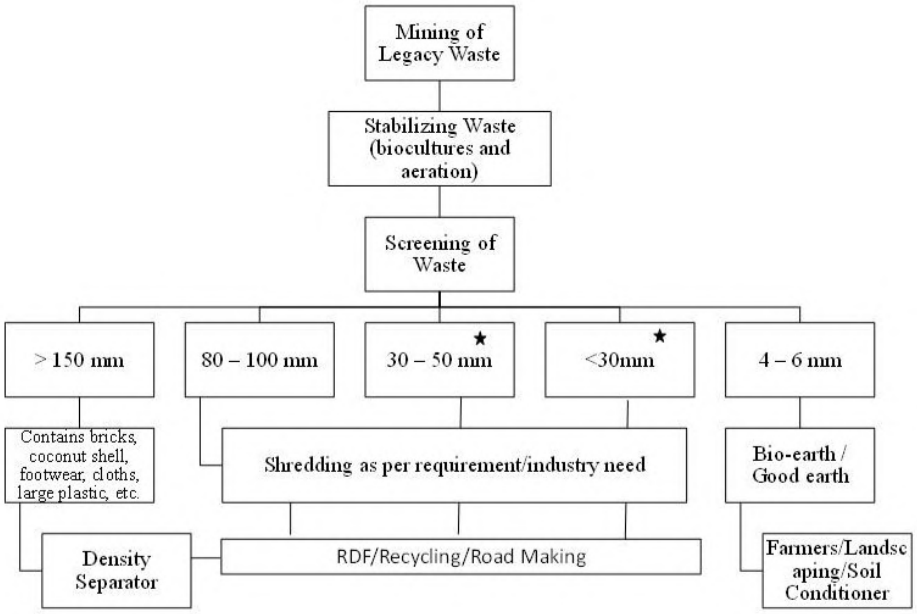
1. Mechanical excavators for formation of trenches and spreading of bio-culture for bio-remediation
2. Mobile Trommel screens with screen size of 25 mm.
3. Static Trommel screen of 4 mm screen size for bio solids.
4. Shredder for dry waste- RDF and bailing machine if required.

2.3.1 Methodology for For Bio-remediation and Bio-mining

1. Phasing for conducting biomining of legacy.
2. Planning for procurement of man power and machines.
3. Conducting survey and investigations for dump site prior to commencement of works.
4. Conducting total station survey and demarcation of site for legacy waste.
5. Conducting environmental baseline survey and characterization of waste for all sites.
6. Submission of phasewise plan for respective town for conducting bio-mining.
7. Identification of nearby cement factories for RDF supply.
8. Discussion with ULB officials and nearby farmers for supply of bio-solids.
9. Deployment of machineries in phased manner- Mobile trommel machines, static screens, Shredder.
10. MoU with nearby cement factories.
11. Execution of works as per the phasewise plan.
12. Conducting bio-remediation with formation of trenches and spreading of bio-culture.
13. Screening of settled material through trammels.
14. Shredding for dry material and packing.
15. Provisions for bio solids with supply to farmers and stacking of inert material in dedicated space.
16. Fresh waste daily coming on site shall be stacked at demarcated locations on site and will be further processed after construction of fresh waste plant of capacity 200 TPD

CPCB Guidelines for Disposal of Legacy Waste (Old Municipal Solid Waste) published in Feb, 2019 shall be followed during the execution of works.

Trenching method for bio-mining is proposed to be adopted for biomining process. JCBswill be deployed to dig 2-2.5 meter deep trenches downwards from the top of a legacy waste heap at 1.5 to 2 meter intervals. The uppermost layers will be converted into in-situ wind-rows. Mist-spray the waste lightly with bio-cultures will be sprayed to control odour and get the decomposing microbes dispersed into the waste. These slices will be brought town to form terraces and turn one aerated windrow onto another weekly before repeating the process until almost ground level is reached. Screening will be commissioned when waste moisture is low enough. Following diagram provides overview of bio-remediation and bio-mining of legacy waste.



The above methodology is tentative; during the execution changes will be done as per the actual requirement.

Utilization of recovered material from legacy waste

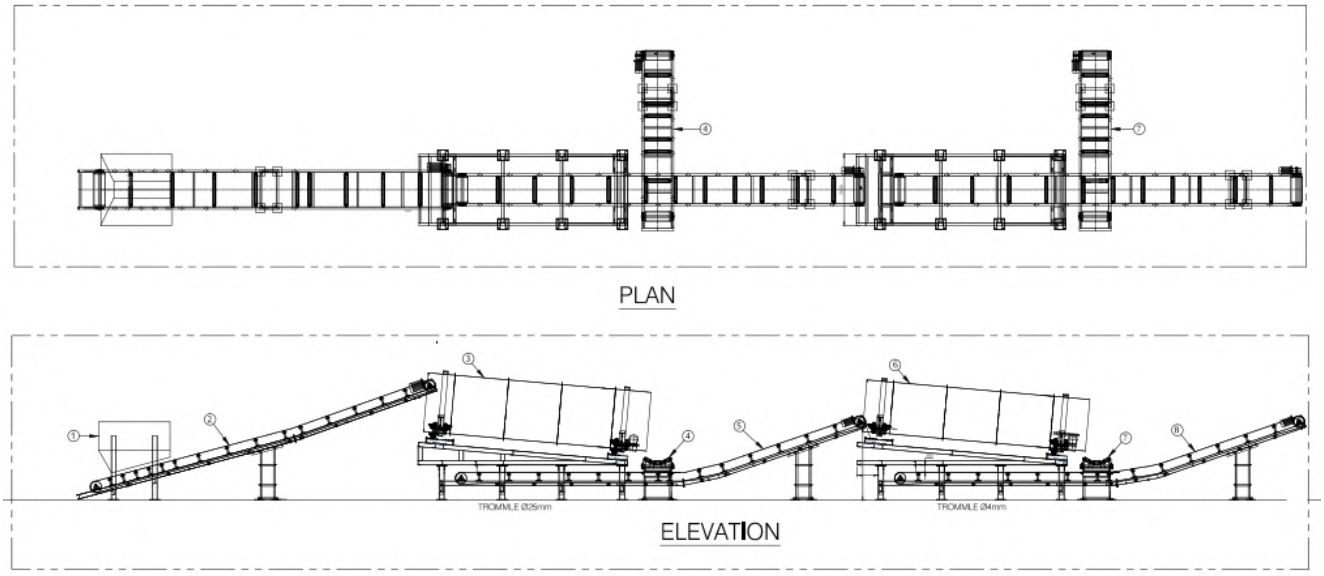
Biomining will recover plastics, metals, cloths etc which can be used for refuse derive fuel (RDF). RDF can be supplied nearest industries using solid fuel such as cement industries or power plants. Plastic to be supplied to nearest bitumen hot-mix plants and also ULB tenders will specify Plastic Roads in road tenders to ensure offtake of the thin-film plastic fractions.

Integration with kabadiwalas within the local body to see who will be willing to pick up or accept which items. storage sheds will be provided for use by waste-picker groups or kabadiwalas. Transporters will be identified who can transport different fractions out on their return trips for inert material which can be used as earth filling for road constructions.

1. Particles less than 4-6 mm can be used as bio-solids or soil conditioners to be mixed with soil for farming purpose.
2. Inert material will be utilized as earth filling in road construction and filling in low lying area. Part of the inert material stacked at site will be disposed in sanitary landfill site once it is constructed after area reclamation.
3. Following diagram provides the schematic representation of utilization of recovered material from legacy waste.

The above methodology is tentative; during the execution changes will be done as per the actual requirement.

Figure 2-5 : tentative layout of trommel screening machine for biomining



TROMMEL Ø25mm
(1) FEED HOPPER
(2) INLET CONVEYOR
(3) TROMMEL Ø25mm
(4) REGECT CONVEYOR

TROMMEL Ø4mm
(5) COLLETED FEED CONVEYOR
(6) TROMMEL Ø4mm
(7) REGECT CONVEYOR
(8) FINISH MATERIAL CONVEYOR

Typical plan and section for trommel to be used for bio-mining of legacy waste. The plan is tentative; actual plant details will be provided during execution on actual requirement.

2.4 Project Cost Estimation for conducting bio-remediation and bio-mining of legacy waste

Project cost estimation derived based on the biomining Rate of Rs 420 per Cum as per earlier approved DPR. Quantity of legacy waste derived based on total station survey conducted in Oct 2020. Following table provides the details of project cost estimation for conducting bio-remediation and biomining of legacy waste for remaining quantity at Sukhali compost depot, Amravati.

Table 2-1 : Project Cost for conducting bio-remediation and biomining of legacy waste for remaining area Sukhali compost depot

Sr no	REF.	DESCRIPTION OF ITEM	QTY.	UNIT	RATE	AMOUNT (in Rs.)
1	MJP/SECPDM/SWM/383/18/DT09-07-2018	Biominig old Dumped waste via Cutting, Dozing, Spreading, Spraying, Screening, TRANSPORTATION AND CARRIAGE OF MATERIALS of Municipal Solid waste as well as natural ground with the help of Dozer or any other suitable machinery/equipment and compacting the M.S.W/soil with the help of Dozer it self up to required line & level. Excess of waste cut will be shifted with in the plot as per instruction given by Engineer-In-Charge. The newly filled area must also be compacted with the dozer up to required compaction etc. complete as directed by Engineer- in-Charge .	365050	Cum	420	15,33,21,000/-
			GRAND TOTAL			**15,33,21,000/-**

Note. – Bio mining rate are specified in technical sanction by Maharashtra Jiven Pradhikaran, Amravati in approved DPR on dt.20/11/2018.

2.5 Implementation Mechanism

After approval of DPR; tender document will published as per the model RFP provided by Hon'ble Urban Development Department, Govt of Maharashtra. Contractor shall be strictly instructed to execute the work as per the methodology given and Terms of reference mentioned in the RFP. Payment terms shall be based on the area cleaning for the entire earmarked site area under legacy waste. Contractor shall strictly instructed to execute the works for entire area under legacy waste and dispute in terms of quantity will be avoided.

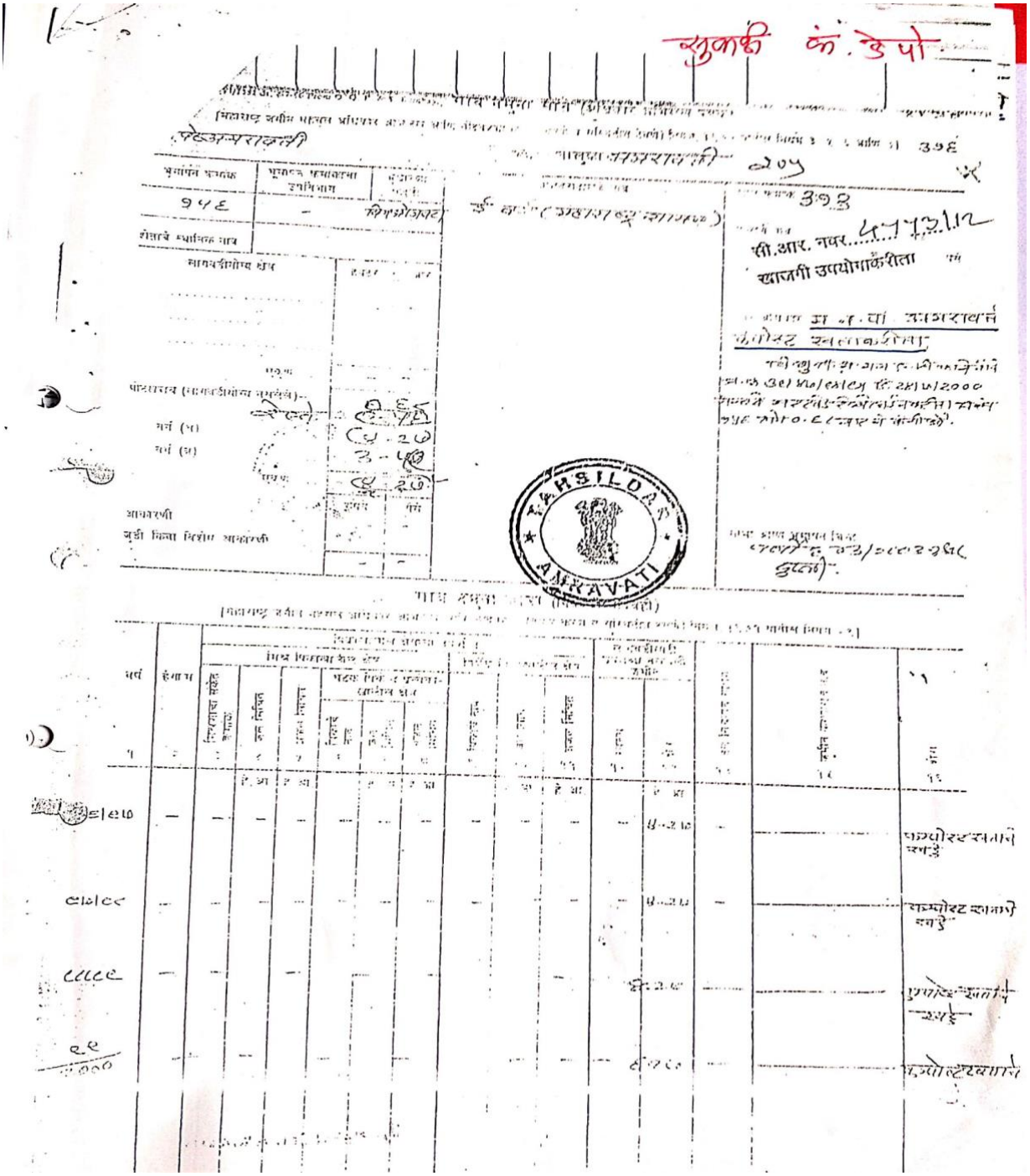
3. Annexure

3.1 Location details of legacy waste dump site - Sukali compost Depot

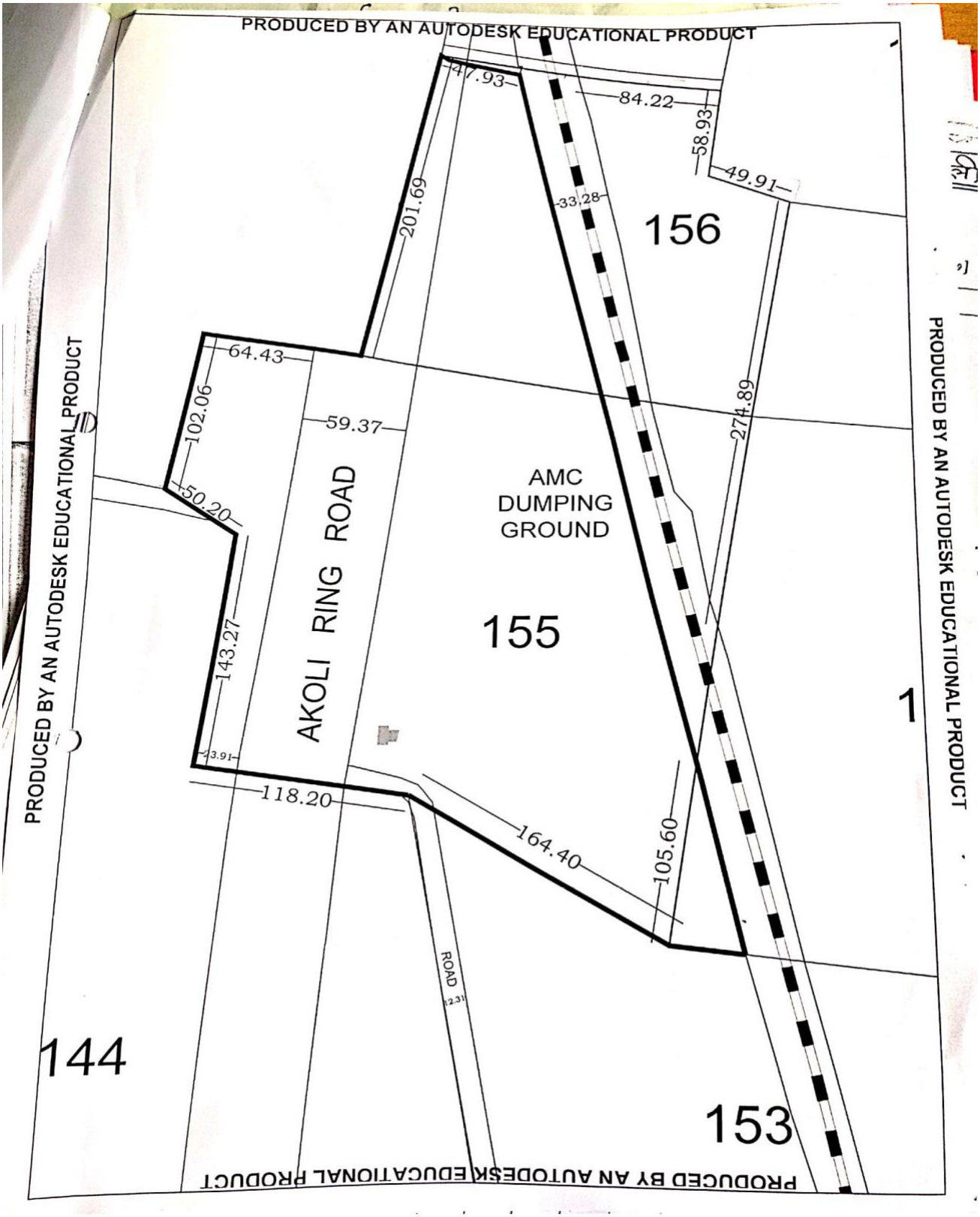
Sr.No.	Item	Description
1	Name site	Sukali Compost Depot.
2	Mouja	Peth Amravati
3	Survey number	155, 156
4	Co-ordinates	Latitude: 20°56'1.04"N Longitude: 77°43'30.14"E
5	Total Land Area	9.35 Ha
6	Area under legacy waste	7.99 Ha
7	Land mark	Amravati - Narkhed railway line, Akoli ring road
8	Akoli ring road passes through dump site	60m wide
9	Amravati - Narkhed railway line passes through dump site	30m wide
10	Land available on left site for dumped	1.13Ha
11	Land available on right site between railway line for dumped	6.5 Ha
12	Distance of processing facilities from city/town boundary(in Kms)	3
13	Distance from the nearest habitation(in Kms)	1
14	Distance from water body(in Kms	1
15	Distance from state/national highway(in Kms)	1
16	Distance from Airport(in Kms)	11
17	Distance from important religious places or historical monument(in Kms)	170
18	Whether it falls in flood prone area	No
19	Whether it falls in earthquake fault line area	No
20	Site is fenced	No
21	Lighting facility is available on site	Partially
22	Weigh bridge facility available	No
23	Storage Facility Available	Yes

3.2 Land details of Sukali Compost Depot

3.2.1 Land record



3.2.2 Site measurement details



3.3 Authorization from MPCB

MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 4010437/4020781 /4037124/4035273
Fax : 24044532/4024068 /4023516
Email : rohq@mpcb.gov.in

Kalpataru Point, 3rd & 4th floor,
Sion- Matunga Scheme Road No. 8,
Opp. Cine Planet Cinema, Near Sion Circle,
Sion (E),
Mumbai - 400 022

No: BO/MSWA/B-/CC-2001000004 Date: 01/01/2020

FORM -II
[See – Rule 16 (1)]

To,
The Municipal Commissioner,
Amravati Municipal Corporation,
Amravati.

Sub: Authorization under Solid Waste Management Rules, 2016.

Ref: Your online application for grant of authorization UAN No. MPCB-MSW_AUTH-0000000404 Dtd. 29/08/2019.

The **Maharashtra Pollution Control Board** after examining the proposal hereby authorizes **The Commissioner**, having administrative office at **Amravati Municipal Corporation, Amravati** to set up and operate integrated waste management facility including preprocessing for dry, windrow composting wet waste and Biogas for wet waste having capacity 200 MT/D at S. No. 155 and 156 Peth (Sakoli), Tal & Dist- Amravati on the terms and conditions (including the standards to be complied with) attached to this authorization.

1. The authorization is hereby granted to setup and operate the facility for processing, recycling, treatment and disposal of solid waste.
2. The Solid Waste Management authorization is valid for the period up to **31/01/2024.**
3. The authorization is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and the standards laid down in Schedules I and II under these rules.
4. The Maharashtra Pollution Control Board may at any time revoke any of the condition applicable under the authorization and shall communicate the same in writing.
5. Any violation of provisions of **Solid Waste Management Rules, 2016** attracts the penal provisions of the **Environment (Protection) Act, 1986 (29 of 1986).**
6. **This authorization is granted without prejudice or being prejudice of the order passed/ to be passed by Hon'ble High Court/NGT.**
7. The Corporation shall strictly follow the EIA Notification, 2006.

Amravati Municipal corporation Page **1** of **4**

8. The Corporation shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.
9. The Corporation shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.
10. **Corporation shall provide Buffer Zone around the solid waste processing and disposal facility as per CPCB guidelines by carrying out study of area and solid waste management Rules, 2016.**
11. Corporation shall make an application for renewal of the Authorization at least 60 days before the date of the expiry of the Authorization.
12. This is issued with the approval of Consent Committee of the Board in its meeting held on 27/11/2019.

(E. Ravendiran, IAS)
Member Secretary

D. A. - Annexure- I

Copy f. w. cs-

The District Collector, Amravati - Being one of the implementing authorities having overall responsibility for the enforcement of the provisions of Solid Waste Management Rules, 2016, it is obligatory on your part to see that the Solid Waste is processed & disposed off in accordance with the said Rules.

Copy to:

1) **Regional Officer, MPCB, Amravati / Sub Regional Officer, MPCB, Amravati-1** - For necessary action and follow up.

2] Master File.

Amravati Municipal corporation

Page **2** of **4**

ANNEXURE –I

Terms & Conditions to Operate Municipal Solid Waste Processing/ Waste Disposal Facilities and sanitary landfill site at following location by **The Municipal Commissioner**, **Amravati Municipal Corporation**, **Amravati** as mention below.

1. 200 MT/ Day of Solid Waste generated shall be processed and disposed as below:

Sr. No	Operating Agency	Location of waste processing site	Municipal Waste	Method of Treatment
1.	Amravati Municipal Corporation, Amravati	S. No. 155 and 156 Peth (Sakoli), Tal & Dist-Amravati.	200.0 MT/Day	1. Preprocessing for dry, windrow composting for wet waste and Biogas for wet waste. 2. Segregated waste like Metal, Paper, Plastic etc. shall be disposed through rack pickers by sale for recycle. 3. The non- Biodegradable inert waste residues of waste processing facilities as well as pre- processing reject from waste processing facilities shall be disposed off by secured landfill.

Note :

1] The odour nuisance from the site can be controlled by periodic spraying of microbial culture or any suitable method.

2] At the initial stage of collection of Municipal solid Wastes the waste minimization and segregation shall be carried out at source to avoid burden on the waste processing site.

2. The municipal authority shall comply with these rules as per the implementation Schedule laid down in **Schedule I and II** as per Solid Waste Management Rules, 2016.

3. The corporation shall submit its annual report in Form-IV to Maharashtra Pollution Control Board and the Secretary-in-Charge of the Department of Urban Development of the concerned State or Union Territory in case of metropolitan city and to the Director of Municipal Administration or Commissioner of Municipal Administration or Officer in -Charge of Urban local bodies in the state in case of all other local bodies of state on or before the 30th day of June every year.

4. When an accident occurs of any municipal solid wastes collection, segregation, storage, processing, treatment and disposal facility or landfill site or during the transportation of such wastes, the municipal authorities shall forthwith report the accident in Form-VI to the Secretary In charge of the Urban Development. Department in metropolitan cities and to the District Collector in all other cases.

5. The inert generated during handling and processing of MSW shall be properly land filled at authorized site.

6. The municipal authority will have to abide by the provisions of Solid Waste Management Rules, 2016.

7. Tipper and Dumper shall be avoided. Closed body bins shall be used or compactor shall be used for MSW collections.

8. Raw waste material shall not be dumped/stored temporary at this site.

9. All recyclable material shall be segregated at source and before receiving at disposal site.

Amravati Municipal corporation

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10. All mitigation measures like odour, smoke, fire, dust, nuisance etc. shall be taken by the corporation.

11. The gas **cleaning** system shall be installed with comprehensive scrubbing system and shall be analyzed monthly for parameters like PCBs,PAHs,Dioxins,Furans,H2S, CS2 etc.

12. The inert created during handling and processing of MSW shall be properly land filled at authorized site.

13. Environment Management Plan and Disaster Management Plan shall be prepared and implemented by the corporation.

14. Corporation shall submit Bank Guarantee of Rs. 5 lacs towards compliance of authorization conditions to the Board within 15 days period from issuance of this authorization, which will be valid for a period of five year.

15. Corporation shall implement the timely action plan for site selection, acquisition of land, treatment and processing of solid waste as per the Minutes of the Order dtd.2/4/2013 passed by Hon'ble High Court, Mumbai against the writ petition No.1740/1998.

16. The Corporation shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.

17. The Corporation shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.

18. This authorization is granted without prejudice or being prejudice of the order passed/ to be passed by Hon'ble High Court/NGT.

19. Corporation shall provide Buffer Zone around the solid waste processing and disposal facility as per CPCB guidelines by carrying out study of area and solid waste management Rules, 2016.

20. This is issued with the approval of Consent Committee of the Board in its meeting held on 27/11/2019.

(E. Ravendiran, IAS)
Member Secretary

Amravati Municipal corporation

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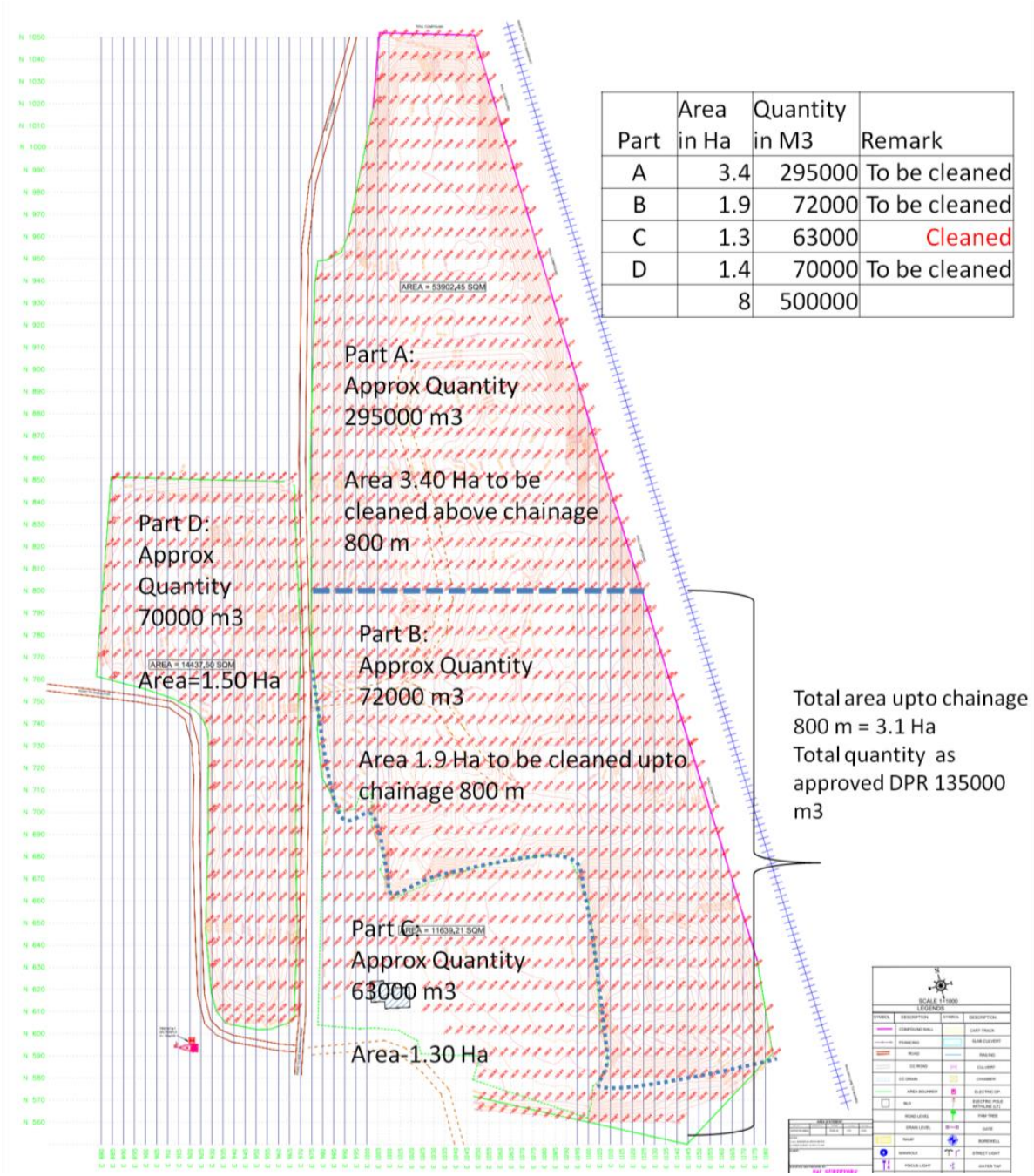
3.4 Drawings for Total station Survey conducted for sukali compost depot

1.0 Contour survey drawing



Part	Area in Ha	Quantity in M3	Remark
A	3.4	295000	To be cleaned
B	1.9	72000	To be cleaned
C	1.3	63000	Cleaned
D	1.4	70000	To be cleaned
	8	500000	

3.5 Quantity report for Total station Survey conducted for sukali compost depot

3.5.1 Quantity report for area to be cleaned on RHS of Akoli Ring road

Quantity Statement of legacy waste at sukali compost deopt. Amravati. Right side of akoli ring road

Sr No	Section / Chainage From	Previous Section	Difference	Width	Area In Sq. Meter	Previous Area In Sqm	Average Area Sq. Meter	Cutting Volume In Cum
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	590	0	0	0	0	0	0	0
2	600	590	10	15.26	8.23	0	4.115	41.15
3	610	600	10	54.08	29.851	8.23	19.041	190.405
4	620	610	10	61.56	111.120	29.851	70.486	704.855
5	630	620	10	66.99	177.320	111.12	144.220	1442.2
6	640	630	10	73.17	400.120	177.32	288.720	2887.2
7	650	640	10	74.91	302.120	400.12	351.120	3511.2
8	660	650	10	74.8	444.120	302.12	373.120	3731.2
9	670	660	10	74.29	366.320	444.12	405.220	4052.2
10	680	670	10	73.09	366.120	366.32	366.220	3662.2
11	690	680	10	71.1	423.230	366.12	394.675	3946.75
12	700	690	10	69.42	288.120	423.23	355.675	3556.75
13	710	700	10	67.75	257.800	288.12	272.960	2729.6
14	720	710	10	69.26	401.120	257.8	329.460	3294.6
15	730	720	10	153.51	366.120	401.12	383.620	3836.2
16	740	730	10	154.22	523.210	366.12	444.665	4446.65
17	750	740	10	152.88	523.120	523.21	523.165	5231.65
18	760	750	10	169.09	534.120	523.12	528.620	5286.2
19	770	760	10	169.78	725.120	534.12	629.620	6296.2
20	780	770	10	167.78	723.120	725.12	724.120	7241.2
21	790	780	10	164.95	728.000	723.12	725.560	7255.6
22	800	790	10	162.36	801.120	728	764.560	7645.6
23	810	800	10	160.22	989.120	801.12	895.120	8951.2
24	820	810	10	158.57	991.210	989.12	990.165	9901.65
25	830	820	10	155.89	1103.210	991.21	1047.210	10472.1
26	840	830	10	152.87	1232.670	1103.21	1167.940	11679.4
27	850	840	10	149.53	1184.630	1232.67	1208.650	12086.5
28	860	850	10	146.33	1023.650	1184.63	1104.140	11041.4
29	870	860	10	143.42	1023.120	1023.65	1023.385	10233.85
30	880	870	10	140.33	1102.210	1023.12	1062.665	10626.65
31	890	880	10	136.4	1236.980	1102.21	1169.595	11695.95
32	900	890	10	133.32	1132.870	1236.98	1184.925	11849.25
33	910	900	10	130.32	1287.320	1132.87	1210.095	12100.95
34	920	910	10	127.68	1032.430	1287.32	1159.875	11598.75
35	930	920	10	124.18	1098.430	1032.43	1065.430	10654.3

Sr No	Section / Chainage From	Previous Section	Difference	Width	Area In Sq. Meter	Previous Area In Sqm	Average Area Sq. Meter	Cutting Volume In Cum
36	940	930	10	121.14	1054.760	1098.43	1076.595	10765.95
37	950	940	10	117.8	997.340	1054.76	1026.050	10260.5
38	960	950	10	114.89	983.420	997.34	990.380	9903.8
39	970	960	10	111.68	846.930	983.42	915.175	9151.75
40	980	970	10	108.21	893.420	846.93	870.175	8701.75
41	990	980	10	104.76	783.760	893.42	838.590	8385.9
42	1000	990	10	95.34	763.250	783.76	773.505	7735.05
43	1010	1000	10	84.76	873.820	763.25	818.535	8185.35
44	1020	1010	10	79.34	672.720	873.82	773.270	7732.7
45	1030	1020	10	74.6	897.630	672.72	785.175	7851.75
46	1040	1030	10	69.64	791.720	897.63	844.675	8446.75
47	1050	1040	10	64.3	876.090	791.72	833.905	8339.05
48	1060	1050	10	59.42	782.720	876.09	829.405	8294.05
49	1070	1060	10	54.97	872.230	782.72	827.475	8274.75
50	1080	1070	10	51.02	672.620	872.23	772.425	7724.25
51	1090	1080	10	46.92	782.250	672.62	727.435	7274.35
52	1100	1090	10	43.57	210.230	782.25	496.240	4962.4
						Total Quantity		**365640.105**

3.5.2 Quantity report for area to be cleaned on LHS of Akoli Ring road

Quantity Statement of legacy waste at sukali compost deopt. Amravati. left side of akoli ring road.

Sr No	Section / Chainage From	Previous Section	Difference	Width	Area In Sq. Meter	Previous Area In Sqm	Average Area Sq. Meter	Cutting Volume In Cum
1	2	3	4	5	6	7	8	9
1	590	0	0	0	0	0	0	0
2	600	590	10	0	0	0	0	0
3	610	600	10	0	0	0	0	0
4	620	610	10	0	0	0	0	0
5	630	620	10	0	0	0	0	0
6	640	630	10	0	0	0	0	0
7	650	640	10	0	0	0	0	0
8	660	650	10	35.19	60.000	0	30.000	300
9	670	660	10	37.92	199.760	60.000	129.880	1298.8
10	680	670	10	39.69	201.750	199.760	200.755	2007.55
11	690	680	10	40.05	278.650	201.750	240.200	2402
12	700	690	10	41.11	244.760	278.650	261.705	2617.05
13	710	700	10	40.85	255.450	244.760	250.105	2501.05
14	720	710	10	40.2	260.540	255.450	257.995	2579.95
15	730	720	10	40.12	263.850	260.540	262.195	2621.95
16	740	730	10	39.41	323.650	263.850	293.750	2937.5
17	750	740	10	39.7	250.670	323.650	287.160	2871.6
18	760	750	10	39.75	367.530	250.670	309.100	3091
19	770	760	10	40.03	267.430	367.530	317.480	3174.8
20	780	770	10	40.28	204.340	267.430	235.885	2358.85
21	790	780	10	41.84	256.560	204.340	230.450	2304.5
22	800	790	10	53.59	267.430	256.560	261.995	2619.95
23	810	800	10	86.45	289.850	267.430	278.640	2786.4
24	820	810	10	91.35	345.750	289.850	317.800	3178
25	830	820	10	90.94	389.845	345.750	367.798	3677.975
26	840	830	10	89.29	303.340	389.845	346.593	3465.925
27	850	840	10	88.37	298.760	303.340	301.050	3010.5
28	860	850	10	86.73	389.340	298.760	344.050	3440.5
29	870	860	10	85.78	499.650	389.340	444.495	4444.95
30	880	870	10	84.58	345.530	499.650	422.590	4225.9
31	890	880	10	83.74	398.650	345.530	372.090	3720.9
32	900	890	10	82.14	156.780	398.650	277.715	2777.15
						Total Quantity		70423.8

3.5.3 Quantity report- Total Quantity of Legacy waste

Sr No	Section / Chainage From	Previous Section	Difference	Width	Area In Sq. Meter	Previous Area In Sqm	Average Area Sq. Meter	Cutting Volume In Cum
1	2	3	4	5	6	7	8	9
1	590	0	0	0	0	0	0	0
2	600	590	10	15.26	8.23	0	4.115	41.15
3	610	600	10	54.08	29.851	8.23	19.0405	190.405
4	620	610	10	61.56	111.12	29.851	70.4855	704.855
5	630	620	10	66.99	177.32	111.12	144.22	1442.2
6	640	630	10	73.17	400.12	177.32	288.72	2887.2
7	650	640	10	74.91	302.12	400.12	351.12	3511.2
8	660	650	10	109.99	504.12	302.12	403.12	4031.2
9	670	660	10	112.21	566.08	504.12	535.1	5351
10	680	670	10	112.78	567.87	566.08	566.975	5669.75
11	690	680	10	111.15	701.88	567.87	634.875	6348.75
12	700	690	10	110.53	532.88	701.88	617.38	6173.8
13	710	700	10	108.6	513.25	532.88	523.065	5230.65
14	720	710	10	109.46	661.66	513.25	587.455	5874.55
15	730	720	10	193.63	629.97	661.66	645.815	6458.15
16	740	730	10	193.63	846.86	629.97	738.415	7384.15
17	750	740	10	192.58	773.79	846.86	810.325	8103.25
18	760	750	10	208.84	901.65	773.79	837.72	8377.2
19	770	760	10	209.81	992.55	901.65	947.1	9471
20	780	770	10	208.06	927.46	992.55	960.005	9600.05
21	790	780	10	206.79	984.56	927.46	956.01	9560.1
22	800	790	10	215.95	1068.55	984.56	1026.555	10265.55
23	810	800	10	246.67	1278.97	1068.55	1173.76	11737.6
24	820	810	10	249.92	1336.96	1278.97	1307.965	13079.65
25	830	820	10	246.83	1493.055	1336.96	1415.0075	14150.075
26	840	830	10	242.16	1536.01	1493.055	1514.5325	15145.325
27	850	840	10	237.9	1483.39	1536.01	1509.7	15097
28	860	850	10	233.06	1412.99	1483.39	1448.19	14481.9
29	870	860	10	229.2	1522.77	1412.99	1467.88	14678.8
30	880	870	10	224.91	1447.74	1522.77	1485.255	14852.55
31	890	880	10	220.14	1635.63	1447.74	1541.685	15416.85
32	900	890	10	215.46	1289.65	1635.63	1462.64	14626.4
33	910	900	10	130.32	1287.320	1289.65	1288.485	12884.85
34	920	910	10	127.68	1032.430	1287.32	1159.875	11598.75
35	930	920	10	124.18	1098.430	1032.43	1065.430	10654.3
36	940	930	10	121.14	1054.760	1098.43	1076.595	10765.95
37	950	940	10	117.8	997.340	1054.76	1026.050	10260.5
38	960	950	10	114.89	983.420	997.34	990.380	9903.8
39	970	960	10	111.68	846.930	983.42	915.175	9151.75
40	980	970	10	108.21	893.420	846.93	870.175	8701.75

Sr No	Section / Chainage From	Previous Section	Difference	Width	Area In Sq. Meter	Previous Area In Sqm	Average Area Sq. Meter	Cutting Volume In Cum
41	990	980	10	104.76	783.760	893.42	838.590	8385.9
42	1000	990	10	95.34	763.250	783.76	773.505	7735.05
43	1010	1000	10	84.76	873.820	763.25	818.535	8185.35
44	1020	1010	10	79.34	672.720	873.82	773.270	7732.7
45	1030	1020	10	74.6	897.630	672.72	785.175	7851.75
46	1040	1030	10	69.64	791.720	897.63	844.675	8446.75
47	1050	1040	10	64.3	876.090	791.72	833.905	8339.05
48	1060	1050	10	59.42	782.720	876.09	829.405	8294.05
49	1070	1060	10	54.97	872.230	782.72	827.475	8274.75
50	1080	1070	10	51.02	672.620	872.23	772.425	7724.25
51	1090	1080	10	46.92	782.250	672.62	727.435	7274.35
52	1100	1090	10	43.57	210.230	782.25	496.240	4962.4
						Total Quantity		437070.31

3.5.4 Quantity report- Total Quantity of Legacy waste cleaned with bioremediation and biomining

Sr No	Section From	Previous Section	Difference	Width	Area Sq. Meter	Previous Area	Average Sq. Meter	Quantity Cum
1	600		0	5	20			
2	610	600	10	8	100	20	60	600
3	620	610	10	61.9	112.21	100	106.105	1061.05
4	630	620	10	70.23	453.23	112.21	282.72	2827.2
5	640	630	10	84.24	493.12	453.23	473.175	4731.75
6	650	640	10	86.31	455.23	493.12	474.175	4741.75
7	660	650	10	80	732.23	455.23	593.73	5937.3
8	670	660	10	128.35	489.35	732.23	610.79	6107.9
9	680	670	10	127	545.32	489.35	517.335	5173.35
10	690	680	10	125.56	634.65	545.32	589.985	5899.85
11	700	690	10	123.87	623.45	634.65	629.05	6290.5
12	710	700	10	122	634.23	623.45	628.84	6288.4
13	720	710	10	116.31	623.98	634.23	629.105	6291.05
14	730	720	10	29	201.23	623.98	412.605	4126.05
15	740	730	10	23.83	167.23	201.23	184.23	1842.3
16	750	740	10	22.31	201.21	167.23	184.22	1842.2
						Total Volume		**63760.65**

3.5.5 Quantity report- Cleaned and Remain Legacy Waste

Sr. No.	Section from (Chainage)	Previous section	Difference	width	Reading of 1st survey report for filling volume				Reading of 2nd survey report for Cutting volume					Balance filling volume			
					Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum	width	Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum	Area in Sqm	Previous Area in Sqm	Average Area in Sqm	Volume in Cum
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	590	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
2	600	590	10	18.59	34.975	0	17.4875	174.875	5	20	0	10	100	14.975	0	7.4875	74.875
3	610	600	10	37.181	183.181	34.975	109.078	1090.78	8	100	20	60	600	83.181	14.975	49.078	490.78
4	620	610	10	64.486	344.0425	183.181	263.61175	2636.12	61.9	112.21	100	106.105	1061.05	231.833	83.181	157.507	1575.07
5	630	620	10	107.49	681.06	344.0425	512.55125	5125.51	70.23	453.23	112.21	282.72	2827.2	227.83	231.833	229.831	2298.31
6	640	630	10	154.56	1026.131	681.06	853.5955	8535.96	84.24	493.12	453.23	473.175	4731.75	533.011	227.83	380.421	3804.21
7	650	640	10	131.6	1452.924	1026.131	1239.5275	12395.3	86.31	455.23	493.12	474.175	4741.75	997.694	533.011	765.353	7653.53
8	660	650	10	130.3	1222.205	1452.924	1337.5645	13375.6	80	732.23	455.23	593.73	5937.3	489.975	997.694	743.835	7438.35
9	670	660	10	128.99	1221.973	1222.205	1222.089	12220.9	128.4	489.35	732.23	610.79	6107.9	732.623	489.975	611.299	6112.99
10	680	670	10	127.69	1153.758	1221.973	1187.8655	11878.7	127	545.32	489.35	517.335	5173.35	608.438	732.623	670.531	6705.31
11	690	680	10	136.95	1112.0275	1153.758	1132.8928	11328.9	125.6	634.65	545.32	589.985	5899.85	477.378	608.438	542.908	5429.08
12	700	690	10	122.33	1206.998	1112.0275	1159.5128	11595.1	123.9	623.45	634.65	629.05	6290.5	583.548	477.378	530.463	5304.63
13	710	700	10	140.89	1284.398	1206.998	1245.698	12457	122	634.23	623.45	628.84	6288.4	650.168	583.548	616.858	6168.58
14	720	710	10	120.82	1191.8035	1284.398	1238.1008	12381	116.3	623.98	634.23	629.105	6291.05	567.824	650.168	608.996	6089.96
15	730	720	10	138.33	404.7585	1191.8035	798.281	7982.81	29	201.23	623.98	412.605	4126.05	203.529	567.824	385.676	3856.76
16	740	730	10	35.864	130.615	404.7585	267.68675	2676.87	23.83	167.23	201.23	184.23	1842.3	-36.615	203.529	83.4568	834.568
17	750	740	10	48.368	141.752	130.615	136.1835	1361.84	22.31	201.21	167.23	184.22	1842.2	-59.458	-36.615	-48.037	-480.37
18	760	750	10	42.698	143.833	141.752	142.7925	1427.93	0	0	0	0	0	143.833	141.752	142.793	1427.93
19	770	760	10	36.789	214.1795	143.833	179.00625	1790.06	0	0	0	0	0	214.18	143.833	179.006	1790.06
20	780	770	10	101.43	203.819	214.1795	208.99925	2089.99	0	0	0	0	0	203.819	214.18	208.999	2089.99
21	790	780	10	55.486	139.402	203.819	171.6105	1716.11	0	0	0	0	0	139.402	203.819	171.611	1716.11
22	800	790	10	63.124	188.643	139.402	164.0225	1640.23	0	0	0	0	0	188.643	139.402	164.023	1640.23
	B - Upto date Quantity clean						Total (A)	135882				Total (B)	63860.65			Total C	72020.9
	C - Quantity remain to be clean																

-TRUE COPY-

AMRAVATI MUNICIPAL CORPORATION, AMRAVATI

OWN//AMC/SA/BV/612/2020

Date: 24/11/2020.

To,

Principle Secretary
Urban Development Department,
Government of Maharashtra
4th Floor, Mantralaya, Nariman Point, Mumbai.

Subject: For approval of detail project report in respect of additional fund required for bio-mining of remaining waste at Sukali Compost Depot for solid waste management.

Reference:

1) Letter dtd. 07/06/2017 of Maharashtra Urban Development mission directorate, Clean Maharashtra Mission (Urban) RAS/Solid Waste/708/ 2017-18.

2) Government approval dtd. 16/11/2018 for detail project respect in respect of solid waste management of Amravati Municipal Corporation under clean India Mission.

3) Revised technical sanction of detail project report dtd. 20/11/2018 of Maharashtra Jivan Pradhikaran Amravati Division.

4) Matter pending before National Green Tribunal 60/2019.

5) M/S. Mars Planning and Engineering services Ahmadabad letter dtd. 08/03/2020.

6) Earlier letter to you no. 112/2020, dtd. 09/07/2020.

7) Earlier letter to you no. 420/2020, dtd. 25/09/2020.

Respected Sir,

Maharashtra Government has already approved detailed project report of solid waste management of Amravati Municipal Corporation submitted through M/S Mars planning & Engineering Services, Ahmadabad under clean India movement as per reference No.2. According to said report which includes establishment of project in three location within city, work related to internal development,

establishment of SLP, IEC and bio-mining of 1,31,946/- Cubic meter waste.

As per said detail project report the measurement of waste is in ratio as 321 meter length, 200 meter width and 2.05 meter height out of which 90% land will be reuse after bio-mining. Said proposal was approved by Maharashtra Jivan Pradhikaran, Amravati Division.

Amravati Municipal Corporation had issued work order to Ms. Sadguru Bagde Baba Enterprises joint venture with Ms. P.H. Jadhav Pune for implementation of said detail project report and for bio-mining work on minimum rates (16.3% less) as per model tender documents supplied by the Maharashtra Govt.

That during the execution of the said work, to assess the actual percentage of old and new waste at Sukali Compost Depot. A survey was conducted by the said contractor on dtd. 12/10/2019 and as per said survey total waste which includes old and new waste of five lakh cubic meter (5,00,000 cubic meter) on 7 Hectre 99 R land. The waste which is collected daily from the Amravati City is also dumped at Sukali.

That as per original DPR approved by the government, which mentioned that, 1,31,946 cubic meter waste is dumped in ratio of 321 meter length, 200 meter width and 2.05 meter height. But there is a major difference between approved DPR and actual dumped waste.

That in the approved DPR desegregation plant by scientific method of the solid waste and development of sanitary land filled sight is proposed. Land of 3.5 Hector is for desegregation land and to develop SLP 5.0 land in proposed in DPR. That as per Ms. Mars Planning and Engineering Services Ahmadabad vide their letter dtd. 08/03/2020 waste of 1,31,946 cubic meter is dumped at 3.07 hector land. Hence only 3.07 hector land will remain after bio-mining work on which desegregation plant is proposed. The work of development of SLF is yet to be commenced as no land is vacant at present.

As per approved DPR by Maharshtra Jivan Pradhikaran rates of bio-mining is fixed for Rs. 420/- per cubic meter and total cost of project is Rs. 5,54,16,732/-. As per survey report of Total Station, waste amount

to 5,00,000 cubic meter is present at the spot but as per approved DPR quantity of 1,31,946 cubic meter is mentioned. For remaining waste of 3,65,050 cubic meter Rs. 15,33,21,000/- is required as per quoted rate of 420/- for bio-mining by MJP.

Amravati Municipal Corporation has already submitted the detailed report to Hon'ble National Green Tribunal in respect of execution and process of bio-mining work and SLF work completion as per reference No. 4.

Rs. 15.33 corer is required for vacating the land after bio-mining process on waste to proceed as per the time line as per detailed report submitted to Hon'ble National Green Tribunal.

Accordingly new DPR is being submitted for final approval after taking technical approval from MJP of deficit amount in respect of mentioned percentage and actual percentage waste hence sanction be granted to revised DPR in respect of bio-mining of additional waste.

Enclosure: - Copy of revised Detail Project Report in respect of bio-mining of additional waste.

Commissioner

Municipal Corporation, Amravati.

Copy to:

Mission Director, Clean Maharashtra Mission Mumbai.

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ANNEXURE A-22

AMRAVATI MUNICIPAL CORPORATION, AMRAVATI

OW. N0./AMC/SA/BV/877/2021 Date: 22/02/2021.

To,

Principle Secretary

Urban Development Department-(2),

Government of Maharashtra

4th Floor, Mantralaya, Nariman Point, Mumbai.

Subject: For approval of detail project report in respect of additional fund required for bio-mining of remaining waste at Sukali Compost Depot for solid waste management.

Reference:

1) Letter dtd. 07/06/2017 of Maharashtra Urban Development mission directorate, Clean Maharashtra Mission (Urban) RAS/Solid Waste/708/ 2017-18.

2) Government approval dtd. 16/11/2018 for detail project respect in respect of solid waste management of Amravati Municipal Corporation under clean India Mission.

3) Revised technical sanction of detail project report dtd. 20/11/2018 of Maharashtra Jivan Pradhikaran Amravati Division.

4) Matter pending before National Green Tribunal 60/2019.

5) M/S. Mars Planning and Engineering services Ahmadabad letter dtd. 08/03/2020**.**

6) Earlier letter to you no. 112/2020, dtd. 09/07/2020.

7) Earlier letter to you no. 420/2020, dtd. 25/09/2020.

8) Earlier letter to you no. 612/2020, dtd. 24/11/2020

9) General body of Amravati Municipal Corporation has already given its approval for revise proposal on dtd. 18/12/2020.

10) Order of technical approval for revise proposal dated 18/2/2021, OW.N0.MA/MJP/AM/RCS/319/2021 of Maharshtra Jivan Pradhikaran Amravati.

Respected Sir,

Maharashtra Government has already approved detailed project report of solid waste management of Amravati Municipal Corporation submitted through M/S Mars planning & Engineering Services, Ahmadabad under clean India movement as per reference No.2. According to said report which includes establishment of project in three location within city, work related to internal development, establishment of SLP, IEC and bio-mining of 1,31,946/- Cubic meter waste.

As per said detail project report the measurement of waste is in ratio as 321 meter length, 200 meter width and 2.05 meter height out of which 90% land will be reuse after bio-mining. Said proposal was approved by Maharashtra Jivan Pradhikaran, Amravati Division.

Amravati Municipal Corporation had issued work order to Ms. Sadguru Bagde Baba Enterprises joint venture with Ms. P.H. Jadhav Pune for implementation of said detail project report and for bio-mining work on minimum rates (16.3% less) as per model tender documents supplied by the Maharashtra Govt.

That during the execution of the said work, to assess the actual percentage of old and new waste at Sukali Compost Depot. A survey was conducted by the said contractor on dtd. 12/10/2020 and as per said survey total waste which includes old and new waste of 5,00,000 cubic meter on 7 Hectre 99 R land. The waste which is collected daily from the Amravati City is also dumped at Sukali.

That as per original DPR approved by the government, which mentioned that, 1,31,946 cubic meter waste is dumped in ratio of 321 meter length, 200 meter width and 2.05 meter height. But there is a major difference between approved DPR and actual dumped waste.

That in the approved DPR desegregation plant by scientific method of the solid waste and development of sanitary land filled sight is proposed. Land of 3.5 Hector is for desegregation land and to develop SLP 5.0 land in proposed in DPR. That as per Ms. Mars Planning and Engineering Services Ahmadabad vide their letter dtd. 08/03/2020 waste of 1,31,946 cubic meter is dumped at 3.07 hector land. Hence only 3.07 hector land will remain after bio-mining work on which desegregation plant is proposed. The work of development of SLF is yet to be commenced as no land is vacant at present.

As per approved DPR by Maharshtra Jivan Pradhikaran rates of bio-mining is fixed for Rs. 420/- per cubic meter and total cost of project is Rs. 5,54,16,732/-. As per survey report of Total Station, waste amount to 5,00,000 cubic meter is present at the spot but as per approved DPR quantity of 1,31,946 cubic meter is mentioned. For remaining waste of 3,65,050 cubic meter Rs. 15,33,21,000/- is required as per quoted rate of 420/- for bio-mining by MJP.

Amravati Municipal Corporation has already submitted the detailed report to Hon'ble National Green Tribunal in respect of execution and process of bio-mining work and SLF work completion as per reference No. 4.

Accordingly Rs. 15.33 corer is required for vacating the land after bio-mining process on waste to proceed as per the time line as per detailed report.

Accordingly new revise DPR in respect of difference in original DPR and actual dumped waste at Sukali Compost Depot, is approved by General body of Amravati Municipal Corporation vide Resolution No.85 on dtd. 18/12/2020 after getting technical approval for revise proposal from Maharshtra Jivan Pradhikaran as per reference No. 10.

Hence sanction be granted to revised DPR as per reference No.6 and kindly make available the said fund.

For your information.

Enclosure: -

1. Resolution No. 85 on dtd. 18/12/2020 of General body of Amravati Municipal Corporation.

2. Order of technical approval for revise proposal dated 18/2/2021, OW.N0.MA/MJP/AM/RCS/319/2021 of Maharshtra Jivan Pradhikaran Amravati.

Humbly yours

_____

Commissioner

Municipal Corporation, Amravati.

Copy to:

1. Mission Director, Clean Maharashtra Mission Mumbai.
2. Chief Engineer, Maharashtra Jivan Pradhikaran, Amravati.
3. Divisional officer, Maharashtra pollution control board Amravati.

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ANNEXURE A-23

Distribution of the first installment of the Interim Grant to Non-Million Plus Cities for financial year 2020-2021 as per the recommendations of the 15th Central Finance Commission.

Government of Maharashtra
Urban Development Department
Government Resolution No. FFC-2020 / Q.No.40 / Navi-4
Mantralay, Mumbai- 400032
Date : - May 26, 2020

Reference: - Central Government letter no. F15 (03) / FC-XV / FCD / 2020-25, dated 19.05.2020.

Introduction: -

The final report of the 15th Central Finance Commission will be published till October 30, 2020. Out of which the first report for 2020-21 and explanatory memorandum from the Central Government has received. Vide order dated 19/05/2020 of 15th Finance Commission basic grant of Rs. 305 crore is received for civic bodies of Non Million Plus Cities. The matter of distribution of grant to local bodies in a state is under consideration of the Government.

Government Resolution: -

As per the recommendation of the 15th Central Finance Commission, Central Government released basic Grant of Rs. 305 Crore in the financial year 2020-2021, to (D) class Municipal Corporation, Muncipal council, Nagar Panchayat and contonment board on the basis of 1. Population, 2. Area respectively for the non million plus cities as per annexure. Procedure for allocation of fund will be notified by separate order.

2. Said amount of Rs. 305 Crore for distribution among the civic bodies as per Annexure is handed over to Commissioner / Director Municipal Administration Directorate. Commissioner / Director of Municipal Administration are directed to distribute the said amount of share as per Annexure to concerned civil local bodies immediately by RTGS.

3. As per the recommendation of the 15th Central Finance Commission, Commissioner may submit appropriation certificate to the State government immediately in prescribed form as provided. While spending the grant amount it is to be used as per the provisions and directions issued by Government time to time. Said grant is being distributed "**conditionally**".

4. As per the recommendation of the 15th Central Finance Commission, first installment of interim basic grant for financial year 20-21 is distributed as mentioned above to "D" class Municipal Corporation, Muncipal council, Nagar Panchayat and contonment board. For financial year 20-21 said expenditure to be made from available provision under account "Demand no. F.2,2217 urban development, 05,other urban development scheme, 191 civic bodies, urban development authorities, urban development board, etc. Assistant (00) (03) as per recommendation of 15th Central Finance Commission Assistant Grants (Compulsory) to civic bodies, (2217A314) 31, Grants (excluding salary)"

5. In order to draw and disburse said fund, Director of Municipal Administration and Assistant Directorate Municipal Administration declare to be a comptroller and drawing / disbursing officer respectively.

6. This government resolution is published as per the consent of finance department note on file No. PVA/2020/C.No.30/Finance department/ Date 22.05.2020.

7. This Government Decision is available on the website of the Government of Maharashtra www.maharashtra.gov.in and its code number is (202005221813066525). This order is published after verification by digital signature.

By order and in the name of the Governor of Maharashtra,

(P.J.Jadhao)

Assistant Secretary, Government of Maharashtra

Copy,

1. Private Secretary to the Hon'ble Minister (Urban Development)
2. Secretary to the Hon'ble Minister of State (Urban Development)
3. Hon'ble Chief Secretary, Ministry, Mumbai
4. Additional Chief Secretary, Finance Department, Ministry, Mumbai
5. Director of Municipal Administration Department, varali, Mumbai

6. Accountant General office Maharashtra 1/2 , Mumbai / Nagpur office
7. Contribution and Accounts Officer, Mumbai.
8. All Divisional Commissioner
9. All Collectors
10. Commissioner, Concern All Municipal Corporation
11. Chief Officer of All Municipal council / Nagar Panchayati
12. All district Treasury Officer
13. Personal secretary of Hon'ble Principal Secretary, Ministry of Urban Development Department, Ministry, Mumbai,
14. Personal secretary of Hon'ble Principal Secretary Urban Development Department-2, Ministry, Mumbai
15.Nivad Nasti Navi -4 karyasan , Urban Development Department, Ministry, Mumbai

ANNEXURE

Sr. NO.	DISTRICT	MUNICIPAL CORPORATION/ MUNICIPAL COUNCIL / NAGAR PANCHYAT/CANTONMENT BOARD NAME	FUND PAYABLE BY POPPULATION AND AREA (AMOUNT RS.)
1.	2	3	4
1.	THANE	SAHAPUR NAGARPANCHYAT	1897010
2.	THANE	MURBAAD NAGARPANCHYAT	6373170
3.	PALGHAR	JAWHAR MUNICIPAL COUNCIL	1850526
4.	PALGHAR	DAHANU MUNICIPAL COUNCIL	7869082
5.	PALGHAR	PALGHAR MUNICIPAL COUNCIL	12350026
6.	PALGHAR	VIKRAMGAD NAGARPANCHYAT	1664686
7.	PALGHAR	TALASARI NAGARPANCHYAT	3481585
8.	PALGHAR	WADA NAGARPANCHYAT	2813197
9.	PALGHAR	MOUKHADA NAGARPANCHYAT	2341149
10.	RAIGAD	PANVEL MUNICIPAL CORPORATION	77608751
11.	RAIGAD	KHOPOLI MUNICIPAL COUNCIL	11309458
12.	RAIGAD	ALIBAAG MUNICIPAL COUNCIL	3017818
13.	RAIGAD	MAHAD MUNICIPAL COUNCIL	4072861
14.	RAIGAD	PEN MUNICIPAL COUNCIL	5767819
15.	RAIGAD	ROHA MUNICIPAL COUNCIL	3028866
16.	RAIGAD	URAN MUNICIPAL COUNCIL	4413795
17.	RAIGAD	MURUD-JANJIRA MUNICIPAL COUNCIL	1875116
18.	RAIGAD	SHREEVARDHAN MUNICIPAL COUNCIL	2309108
19.	RAIGAD	MATHERAAN MUNICIPAL COUNCIL	913656
20.	RAIGAD	KARJAT MUNICIPAL COUNCIL	4512213
21.	RAIGAD	MAHSADA MUNICIPAL COUNCIL	1702215
22.	RAIGAD	TADA NAGARPANCHYAT	1591035
23.	RAIGAD	POLADPUR NAGARPANCHYAT	984139
24.	RAIGAD	MANGAAV NAGARPANCHYAT	3235313
25.	RAIGAD	KHALAPUR NAGARPANCHYAT	1326538
26.	RATNAGIRI	RATNAGIRI NAGARPANCHYAT	11243946
27.	RATNAGIRI	CHUPLUN NAGARPARISHAD	8421415

28.	RATNAGIRI	KHED PARISHAD	2527060
29.	RATNAGIRI	RAJAPUR NAGARPARISHAD	1632694
30.	RATNAGIRI	DAPOLI NAGARPANCHYAT	2411702
31.	RATNAGIRI	GUHAGAR NAGARPANCHAYAT	2083622
32.	RATNAGIRI	DEVRUKH NAGARPANCHAYAT	2648168
33.	RATNAGIRI	LANJYA NAGARPANCHAYAT	4003040
34.	RATNAGIRI	MANDALGAD NAGARPANCHAYAT	779900
35.	SINDUDURG	SANVATWADI NAGARPANCHAYAT	3658125
36.	SINDUDURG	VENDURLA NAGARPARISHAD	2279277
37.	SINDUDURG	MALVAN NAGARPARISHAD	2898919
38.	SINDUDURG	KANAKWALI NAGARPANCHAYAT	2667112
39.	SINDUDURG	VABHAVE VAIBHAVWADI NAGARPANCHAYAT	564789
40.	SINDUDURG	KASAI DOLA MARG NAGARPANCHAYAT	1007188
41.	SINDUDURG	KUDAL NAGARPANCHAYAT	2454184
42.	SINDUDURG	DEVGAD JAMSANDE NAGARPANCHAYAT	3391271
43.	NASHIK	MALEGAON MAHANAGARPALIKA	69340886
44.	NASHIK	MANMAD NAGARPARISHAD	12516747
45.	NASHIK	IGATPURI NAGARPARISHAD	5560134
46.	NASHIK	NANDGAON NAGARPARISHAD	3507340
47.	NASHIK	SINNAR NAGARPARISHAD	11277518
48.	NASHIK	YEVLA NAGARPARISHAD	7587012
49.	NASHIK	TRABKESHWAR NAGARPARISHAD	1787534
50.	NASHIK	BHAGUR NAGARPARISHAD	1780858
51.	NASHIK	SATADA NAGARPARISHAD	6535208
52.	NASHIK	NIPHAL NAGARPANCHAYAT	3295214
53.	NASHIK	KALWAN NAGARPANCHAYAT	3258599
54.	NASHIK	DEVLA NAGARPANCHAYAT	2292334
55.	NASHIK	PETH NAGARPANCHAYAT	1449839
56.	NASHIK	SURGANA NAGARPANCHAYAT	1030336
57.	NASHIK	CHANDWAD NAGARPANCHAYAT	5010808
58.	NASHIK	DINDORI NAGARPANCHAYAT	3358113

59.	NASHIK	DEVRALI KATAKMANDAL	9323835
60.	AHMADNAGAR	AHMADNAGAR MAHANAGARPALIKA	53141566
61.	AHMADNAGAR	SHRIRAMPUR NAGARPARISHAD	13038515
62.	AHMADNAGAR	SANGAMNER NAGARPARISHAD	9997104
63.	AHMADNAGAR	KOPARGAON NAGARPARISHAD	9689889
64.	AHMADNAGAR	RAHURI NAGARPARISHAD	7209208
65.	AHMADNAGAR	RAHATA PIMPLAS NAGARPARISHAD	4056473
66.	AHMADNAGAR	SHRIGONDA NAGARPARISHAD	7850140
67.	AHMADNAGAR	DEVLALI / POURA NAGARPARISHAD	6151447
68.	AHMADNAGAR	PATHARDI NAGARPARISHAD	5209869
69.	AHMADNAGAR	NIWASA NAGARPARISHAD	4628968
70.	AHMADNAGAR	SHIRDI NAGARPARISHAD	5632001
71.	AHMADNAGAR	JANKHED NAGARPARISHAD	8242906
72.	AHMADNAGAR	AKOLE NAGARPANCHAYAT	3357969
73.	AHMADNAGAR	KARJAT NAGARPANCHAYAT	4610487
74.	AHMADNAGAR	PARNER NAGARPANCHAYAT	4072556
75.	AHMADNAGAR	SHEVGAON NAGARPARISHAD	7872124
76.	AHMADNAGAR	AHMADNAGAR KATAKMANDAL	4643106
77.	NANDURBAR	NANDURBR NAGARPARISHAD	17024034
78.	NANDURBAR	SHAHADA NAGARPARISHAD	8796603
79.	NANDURBAR	TALODA NAGARPARISHAD	3829829
80.	NANDURBAR	NAVAPUR NAGARPARISHAD	5437700
81.	NANDURBAR	DHADGAON WALFALE NAGARPANCHAYAT	2244986
82.	DHULE	DHULE MAHANAGARPALIKA	55186726
83.	DHULE	SHIRPURWARWALE NAGARPARISHAD	11160157
84.	DHULE	DONDAICHAWARWALE NAGARPARISHAD	7941841
85.	DHULE	SINDHKHED NAGARPANCHAYAT	4443117
86.	DHULE	SAKHARI NAGARPANCHAYAT	3370412
87.	JALGOAN	JALGAON MAHANAGARPALIKA	68081129
88.	JALGOAN	BHUSALWAL NAGARPARISHAD	27178073
89.	JALGOAN	AMALNER NAGARPARISHAD	14255826
90.	JALGOAN	CHOPADA NAGARPARISHAD	10599689

91.	JALGOAN	CHALISGAON NAGARPARISHAD	14595824
92.	JALGOAN	PACHORA NAGARPARISHAD	8665820
93.	JALGOAN	FAIJPUR NAGARPARISHAD	3947447
94.	JALGOAN	YAWAL NAGARPARISHAD	7365675
95.	JALGOAN	RAVER NAGARPARISHAD	3927417
96.	JALGOAN	SAVADA NAGARPARISHAD	3005652
97.	JALGOAN	PAROLA NAGARPARISHAD	5517249
98.	JALGOAN	DHARANGAON NAGARPARISHAD	5213966
99.	JALGOAN	ARENDOL NAGARPARISHAD	4543974
100.	JALGOAN	JAMNER NAGARPARISHAD	8371040
101.	JALGOAN	BHADGAON NAGARPARISHAD	7216792
102.	JALGOAN	VARANGAON NAGARPARISHAD	5034981
103.	JALGOAN	BHODWAD NAGARPANCHAYAT	4332870
104.	JALGOAN	MUKTAI NAGAR NAGARPANCHAYAT	4284417
105.	JALGOAN	SHENDURNI NAGARPANACHAYAT	4907219
106.	PUNE	BARAMATI NAGAR PARISHAD	17556106
107.	PUNE	LONAWALA NAGAR PARISHAD	9714161
108.	PUNE	TALEGAON DHABADE NAGAR PARISHAD	8413730
109.	PUNE	DAUD NAGAR PARISHAD	7270966
110.	PUNE	INDAPUR NAGAR PARISHAD	3847955
111.	PUNE	SHIRUL NAGAR PARISHAD	5520524
112.	PUNE	JEJURI NAGAR PARISHAD	2328480
113.	PUNE	BHUR NAGAR PARISHAD	2954912
114.	PUNE	SASWAD NAGAR PARISHAD	5421631
115.	PUNE	ALANDI NAGAR PARISHAD	4341239
116.	PUNE	JUNNUR NAGAR PARISHAD	3700640
117.	PUNE	RAJGURUNAGAR NAGAR PARISHAD	4238820
118.	PUNE	CHAKAN NAGAR PARISHAD	6523201
119.	PUNE	WADGAON NAGARPANCHAYAT	2666411
120.	PUNE	PUNE KATAK MANDAL	10677120
121.	PUNE	DEHU ROAD KATAK MANDAL	8416719
122.	PUNE	KHADAKI KATAK MANDAL	10515828

123.	SANGALI	SANGALI MIRAJ KUPWAD MAHANAGARPALIKA	76124587
124.	SANGALI	ISLAMPUR NAGARPARISHAD	11187388
125.	SANGALI	VITA NAGARPARISHAD	9069631
126.	SANGALI	ASATA NAGARPARISHAD	8619900
127.	SANGALI	TASGAON NAGARPARISHAD	7126398
128.	SANGALI	JAT NAGARPANCHAYAT	7740902
129.	SANGALI	KAWATHE MAHAKAL NAGARPANCHAYAT	3480235
130.	SANGALI	KHANAPUR NAGARPANCHAYAT	1895801
131.	SANGALI	SHIROLA NAGARPANCHAYAT	2613891
132.	SANGALI	KADEGAON NAGARPANCHAYAT	2439635
133.	SANGALI	PALUS NAGARPANCHAYAT	4831535
134.	SATARA	SATARA NAGARPARISHAD	17393090
135.	SATARA	KARAD NAGARPARISHAD	7752106
136.	SATARA	PHALTAN NAGARPARISHAD	7985329
137.	SATARA	RAHITMATPUR NAGARPARISHAD	4060472
138.	SATARA	MASWAD NAGARPARISHAD	6955905
139.	SATARA	WAI NAGARPARISHAD	5260617
140.	SATARA	PANCHGANI NAGARPARISHAD	2389503
141.	SATARA	MAHABALESWAR NAGARPARISHAD	7708976
142.	SATARA	MALAKAPUR NAGARPARISHAD	4837773
143.	SATARA	LONAND NAGARPARISHAD	3616188
144.	SATARA	KOREGAON NAGARPARISHAD	3958411
145.	SATARA	MEDHA NAGARPARISHAD	791565
146.	SATARA	PATAN NAGARPARISHAD	2187538
147.	SATARA	WADUJ NAGARPARISHAD	3624872
148.	SATARA	KHANDALA NAGARPARISHAD	1652759
149.	SATARA	DAHIWADI NAGARPARISHAD	3838621
150.	SOLAPUR	SOLAPUR MAHANAGARPALIKA	142263750
151.	SOLAPUR	BARSHI NAGARPARISHAD	18309435
152.	SOLAPUR	PANDHARPUR NAGARPARISHAD	14738186
153.	SOLAPUR	KARMALA NAGARPARISHAD	3483866

154.	SOLAPUR	SANGOLA NAGARPARISHAD	7628811
155.	SOLAPUR	AKKALKOT NAGARPARISHAD	5871292
156.	SOLAPUR	MANGALVEDA NAGARPARISHAD	3148890
157.	SOLAPUR	MENDARGI NAGARPARISHAD	1833127
158.	SOLAPUR	DUDHANI NAGARPARISHAD	1654763
159.	SOLAPUR	KURDUWADI NAGARPARISHAD	3449028
160.	SOLAPUR	MALSIRAS NAGARPANCHAYAT	4563110
161.	SOLAPUR	MOHOD NAGARPARISHAD	5633716
162.	SOLAPUR	MHADA NAGARPANCHAYAT	2178348
163.	KOLAHAPUR	KOLHAPUR MAHANAGARPALIKA	80662729
164.	KOLAHAPUR	ICHALKARNGI NAGARPARISHAD	41998700
165.	KOLAHAPUR	JAISINGHPUR NAGARPARISHAD	7248802
166.	KOLAHAPUR	MALKAPUR NAGARPARISHAD	835773
167.	KOLAHAPUR	MURGUD NAGARPARISHAD	2143604
168.	KOLAHAPUR	WADGAON NAGARPARISHAD	4042637
169.	KOLAHAPUR	GAD HINGAJ NAGARPARISHAD	3995395
170.	KOLAHAPUR	KURUNDWAD NAGARPARISHAD	4212064
171.	KOLAHAPUR	KAGAL NAGARPARISHAD	7941018
172.	KOLAHAPUR	HUPARI NAGARPARISHAD	4798176
173.	KOLAHAPUR	SHIROL NAGARPARISHAD	4972969
174.	KOLAHAPUR	PANHADA NAGARPARISHAD	506420
175.	KOLAHAPUR	AJARA NAGARPANCHAYAT	2866945
176.	KOLAHAPUR	HATHKANGALE NAGARPANCHAYAT	2611767
177.	KOLAHAPUR	CHANDGAD NAGARPANCHAYAT	2052822
178.	AURANGABAD	SHILLOD NAGARPARISHAD	9702816
179.	AURANGABAD	PAITHAN NAGARPARISHAD	6101193
180.	AURANGABAD	VAIJAPUR NAGARPARISHAD	6284928
181.	AURANGABAD	GANGAPUR NAGARPARISHAD	4831249
182.	AURANGABAD	KHULTABAD NAGARPARISHAD	2441238
183.	AURANGABAD	KANNAD NAGARPARISHAD	5967643
184.	AURANGABAD	SOYEGAON NAGARPANCHAYAT	1205220
185.	AURANGABAD	KULBRI NAGARPANCHAYAT	3845940

186.	AURANGABAD	AURANGABAD KATAK MANDAL	2982714
187.	PARBHANI	PARBHANI MAHANAGARPALIKA	45922046
188.	PARBHANI	GANGAKHED NAGARPARISHAD	7490938
189.	PARBHANI	SONPETH NAGARPARISHAD	2351420
190.	PARBHANI	PURNA NAGARPARISHAD	5249682
191.	PARBHANI	MANWAT NAGARPARISHAD	4950978
192.	PARBHANI	SELU NAGARPARISHAD	6845751
193.	PARBHANI	JINTUR NAGARPARISHAD	7322793
194.	PARBHANI	PATRI NAGARPARISHAD	5294505
195.	PARBHANI	PALAM NAGARPANCHAYAT	2848914
196.	HINGOLI	HINGOLI NAGARPARISHAD	13434095
197.	HINGOLI	BASMATNAGAR NAGARPARISHAD	10253673
198.	HINGOLI	KALAMNURI NAGARPARISHAD	3951561
199.	HINGOLI	AVAHDA NAGNATH NAGARPANCHAYAT	2384090
200.	HINGOLI	SHENGAON NAGARPANCHAYAT	1417938
201.	JALNA	JALNA NAGARPARISHAD	43818545
202.	JALNA	AMBAD NAGARPARISHAD	4959153
203.	JALNA	BHOKARDAN NAGARPARISHAD	3570587
204.	JALNA	PARTUR NAGARPARISHAD	5494302
205.	JALNA	BADNAPUR NAGARPANCHAYAT	2052466
206.	JALNA	GHANSAWANGI NAGARPANCHAYAT	2070930
207.	JALNA	MANTHA NAGARPANCHAYAT	3553361
208.	JALNA	JAFRABAD NAGARPANCHAYAT	2601634
209.	NANDED	NANDED WAGHADA MAHANAGARPALIKA	80486807
210.	NANDED	BILOLI NAGARPARISHAD	2904119
211.	NANDED	UMARI NAGARPARISHAD	2055975
212.	NANDED	MUDKHED NAGARPARISHAD	4068747
213.	NANDED	KANDHAR NAGARPARISHAD	3971150
214.	NANDED	HADGAON NAGARPARISHAD	3998978
215.	NANDED	DHARMABAD NAGARPARISHAD	5301463
216.	NANDED	DEGLUR NAGARPARISHAD	8034279
217.	NANDED	KUNDALWADI NAGARPARISHAD	2146257

218.	NANDED	MUKHED NAGARPARISHAD	5251383
219.	NANDED	KINWAT NAGARPARISHAD	4590788
220.	NANDED	LOHA NAGARPARISHAD	4505020
221.	NANDED	BHUKAR NAGARPARISHAD	5467785
222.	NANDED	MAHUR NAGARPANCHAYAT	2347650
223.	NANDED	ARDHAPUR NAGARPANCHAYAT	4649537
224.	NANDED	HIMAYATNAGAR NAGARPANCHAYAT	4255658
225.	NANDED	NAYEGAON NAGARPANCHAYAT	3174752
226.	LATUR	LATUR MAHANAGARPALIKA	55215376
227.	LATUR	UDGIR NAGARPARISHAD	14935536
228.	LATUR	AHMADPUR NAGARPARISHAD	6965296
229.	LATUR	NILANGA NAGARPARISHAD	5811207
230.	LATUR	AUSA NAGARPARISHAD	5353099
231.	LATUR	CHAKUR NAGARPANCHAYAT	3752697
232.	LATUR	JALKOT NAGARPANCHAYAT	2134067
233.	LATUR	DEVANI NAGARPANCHAYAT	3303798
234.	LATUR	SHERULANANTPALNAGARPANCHAYA	2962583
235.	LATUR	RENAPUR NAGARPANCHAYAT	4698302
236.	USMANABAD	USMANABAD NAGARPARISHAD	19644775
237.	USMANABAD	TULJAPUR NAGARPANCHAYAT	4995865
238.	USMANABAD	UMRGA NAGARPANCHAYAT	5167190
239.	USMANABAD	BHUM NAGARPANCHAYAT	4696691
240.	USMANABAD	PARANDA NAGARPANCHAYAT	2844469
241.	USMANABAD	MURUM NAGARPANCHAYAT	2751481
242.	USMANABAD	NALDURG NAGARPANCHAYAT	3070738
243.	USMANABAD	KALAMB NAGARPANCHAYAT	3779175
244.	USMANABAD	LOHARA NAGARPANCHAYAT	1934592
245.	USMANABAD	WASHI NAGARPANCHAYAT	5030842
246.	BEED	BEED NAGARPARISHAD	21163481
247.	BEED	AMBEJOGAI NAGARPARISHAD	10911483
248.	BEED	PARADI VAIJNATH NAGARPARISHAD	13230460

249.	BEED	MAJANGAON NAGARPARISHAD	7211333
250.	BEED	GEVRAI NAGARPARISHAD	4937716
251.	BEED	DHARUD NAGARPARISHAD	3096851
252.	BEED	KEJ NAGARPANCHAYAT	6012147
253.	BEED	WADOVANI NAGARPANCHAYAT	2690729
254.	BEED	AASHTI NAGARPANCHAYAT	3775160
255.	BEED	PATODA NAGARPANCHYAT	4887729
256.	BEED	SHIRUR KASAR NAGARPANCHYAT	1084662
257.	BULDHANA	BULDHANA MUNICIPAL COUNCIL	10010713
258.	BULDHANA	KHAMGAON MUNICIPAL COUNCIL	13909325
259.	BULDHANA	MALKAPUR MUNICIPAL COUNCIL	9823563
260.	BULDHANA	SHEGAON MUNICIPAL COUNCIL	8706396
261.	BULDHANA	JALGAON JAMOD MUNICIPAL COUNCIL	4149107
262.	BULDHANA	MHEKAR MUNICIPAL COUNCIL	6685125
263.	BULDHANA	NANDURA MUNICIPAL COUNCIL	6991427
264.	BULDHANA	CHIKHALI MUNICIPAL COUNCIL	8536105
265.	BULDHANA	DEULGAON RAJA MUNICIPAL COUNCIL	6391906
266.	BULDHANA	LONAR MUNICIPAL COUNCIL	33,51319
267.	BULDHANA	SINDKHEDRAJA MUNICIPAL COUNCIL	39,14647
268.	BULDHANA	MOUTALA NAGARPANCHYAT	1883330
269.	BULDHANA	SANGRAMPUR NAGARPANCHYAT	12,19565
270.	**AMRAVATI**	**AMRAVATI MUNICIPAL CORPORATION**	**9,67,47,908**
271.	AMRAVATI	ACHALPUR MUNICIPAL COUNCIL	1,6609551
272.	AMRAVATI	ANJANGOAN SURJI MUNICIPAL COUNCIL	8139260
273.	AMRAVATI	VARUD MUNICIPAL COUNCIL	81,33635
274.	AMRAVATI	MORSHI MUNICIPAL COUNCIL	60,05289
275.	**AMRAVATI**	**DARYAPUR NAGARPARISHAD**	**5343229**
276.	AMRAVATI	CHANDUR RAILWAY MUNICIPAL COUNCIL	29,09740
277.	AMRAVATI	CHANDUR BAZAR MUNICIPAL COUNCIL	27,42912
278.	AMRAVATI	DHAMANGAON MUNICIPAL COUNCIL	31,19944
279.	AMRAVATI	SHENDURJANA MUNICIPAL COUNCIL	39,60805

280.	AMRAVATI	CHIKALDHARA MUNICIPAL COUNCIL	890151
281.	AMRAVATI	TIVSA MUNICIPAL COUNCIL	45,33846
282.	AMRAVATI	DHARNI NAGARPANCHYAT	2588284
283.	AMRAVATI	BHATKULI NAGARPANCHYAT	3370497
284.	AMRAVATI	NANDGOAN KHANDESHWAR	3287649
285.	YAVTMAAL	YAVTMAAL NAGARPARISHAD	38610624
286.	YAVTMAAL	DHARVA NAGARPARISHAD	3748209
287.	YAVTMAAL	GHATANJI NAGARPARISHAD	3459069
288.	YAVTMAAL	DIGRAS NAGARPARISHAD	6811016
289.	YAVTMAAL	PUSAD NAGARPARISHAD	10677072
290.	YAVTMAAL	UMARKHED NAGARPARISHAD	7910218
291.	YAVTMAAL	PANDHARKAWDA NAGARPARISHAD	5474866
292.	YAVTMAAL	WANI NAGARPARISHAD	8715583
293.	YAVTMAAL	NER NAWABPUR NAGARPARISHAD	5150427
294.	YAVTMAAL	AARNI NAGARPARISHAD	5558380
295.	YAVTMAAL	MAREGAON NAGARPANCHAYAT	1616325
296.	YAVTMAAL	MAHAGAON NAGARPANCHAYAT	1502267
297.	YAVTMAAL	KALAMB NAGARPANCHAYAT	3535975
298.	YAVTMAAL	JARIJAMNI NAGARPANCHAYAT	611588
299.	YAVTMAAL	RALEGAON NAGARPANCHAYAT	2948194
300.	YAVTMAAL	BABULGAON NAGARPANCHAYAT	1023192
301.	YAVTMAAL	DHANKI NAGARPANCHAYAT	3224137
302.	WASHIM	KARANJA NAGARPARISHAD	10184805
303.	WASHIM	MANGRULPIR NAGARPARISHAD	4572719
304.	WASHIM	RISOD NAGARPARISHAD	5424015
305.	WASHIM	WASHIM NAGARPARISHAD	13044225
306.	WASHIM	MALEGAON NAGARPANCHAYAT	3618399
307.	WASHIM	MANORA NAGARPANCHAYAT	1702434
308.	AKOLA	AKOLA MAHANAGARPALIKA	161278
309.	AKOLA	TELHARA NAGARPARISHAD	3023895
310.	AKOLA	AKOT NAGARPARISHAD	13727907

311.	AKOLA	BALAPUR NAGARPARISHAD	6550621
312.	AKOLA	PATUR NAGARPARISHAD	3202731
313.	AKOLA	MURTIZAPUR NAGARPARISHAD	5941797
314.	AKOLA	BARSHI TAKALI NAGARPANCHAYAT	4142097
315.	NAGPUR	KAMTHI NAGARPARISHAD	124910
316.	NAGPUR	UMRED NAGARPARISHAD	7971771
317.	NAGPUR	RAMTEK NAGARPARISHAD	3309588
318.	NAGPUR	KHAPA NAGARPARISHAD	2205187
319.	NAGPUR	KALEMSHWAR NAGARPARISHAD	3367300
320.	NAGPUR	MOWAD NAGARPARISHAD	1512527
321.	NAGPUR	SAWNER NAGARPARISHAD	4743794
322.	NAGPUR	KATOL NAGARPARISHAD	6933955
323.	NAGPUR	NARKHED NAGARPARISHAD	3158427
324.	NAGPUR	MOHOPAL NAGARPARISHAD	1052960
325.	NAGPUR	KHANAL NAGARPARISHAD	4180332
326.	NAGPUR	MOUDA NAGARPANCHAYAT	2128096
327.	NAGPUR	MAHADULA NAGARPANCHAYAT	3189474
328.	NAGPUR	WADI NAGARPARISHAD	7875800
329.	NAGPUR	KUHI NAGARPANACHAYAT	1806950
330.	NAGPUR	HINGNA NAGARPANACHAYAT	1386288
331.	NAGPUR	BHIVAPUR NAGARPANACHAYAT	1947694
332.	NAGPUR	WANADONGRI NAGARPARISHAD	5937199
333.	NAGPUR	PARSHIVANI NAGARPANCHAYAT	2334114
334.	NAGPUR	BUTTIBORI NAGARPARISHAD	5042662
335.	NAGPUR	KAMTHI KATAKMANDAL	2367790
336.	BHANDARA	BHANDARA NAGARPARISHAD	13715547
337.	BHANDARA	TUMSAR NAGARPARISHAD	6666143
338.	BHANDARA	PAVANI NAGARPARISHAD	3581941
339.	BHANDARA	LAKHANDUR NAGARPANCHAYAT	1866099
340.	BHANDARA	MOHADI NAGARPANCHAYAT	1844295
341.	BHANDARA	SAKOLI NAGARPANCHAYAT	4090013

342.	BHANDARA	LAKHANI NAGARPANCHAYAT	2141355
343.	GONDIYA	GONDIYA NAGARPARISHAD	19583540
344.	GONDIYA	PIRODA NAGARPARISHAD	4201321
345.	GONDIYA	DEVARI NAGARPARISHAD	2631455
346.	GONDIYA	SALKASA NAGARPARISHAD	2160364
347.	GONDIYA	SADAK ARJUNI NAGARPARISHAD	986940
348.	GONDIYA	GOREGAON NAGARPARISHAD	1636688
349.	GONDIYA	ARJUNI NAGARPARISHAD	1543120
350.	WARDHA	WARDHA NAGARPARISHAD	15588298
351.	WARDHA	ARVI NAGARPARISHAD	6351862
352.	WARDHA	HINGANGHAT NAGARPARISHAD	14966832
353.	WARDHA	PULGAON NAGARPARISHAD	4923995
354.	WARDHA	DEVALI NAGARPARISHAD	2795204
355.	WARDHA	SINDHI NAGARPARISHAD	2108013
356.	WARDHA	SHELU NAGARPANCHAYAT	1987411
357.	WARDHA	SAMURDRAPUR NAGARPANCHAYAT	1113519
358.	WARDHA	AASHTI NAGARPANCHAYAT	1679598
359.	WARDHA	KARANAJA NAGARPANCHAYAT	1883161
360.	CHANDRAPUR	CHANDRAPUR MAHANAGARPALIKA	47747574
361.	CHANDRAPUR	BHALLARPUR NAGARPARISHAD	13362546
362.	CHANDRAPUR	WARORA NAGARPARISHAD	7271437
363.	CHANDRAPUR	BHADRAVATI NAGARPARISHAD	10041576
364.	CHANDRAPUR	MUL NAGARPARISHAD	4540469
365.	CHANDRAPUR	BHRAMHPURI NAGARPARISHAD	6092932
366.	CHANDRAPUR	RAJURA NAGARPARISHAD	4329944
367.	CHANDRAPUR	GADCHANDUR NAGARPARISHAD	4483674
368.	CHANDRAPUR	CHIMUR NAGARPARISHAD	5755477
369.	CHANDRAPUR	NAGBHID NAGARPARISHAD	5736835
370.	CHANDRAPUR	JIVATI NAGARPANCHAYAT	1013386
371.	CHANDRAPUR	SAWALI NAGARPANCHAYAT	2025481
372.	CHANDRAPUR	KORPANA NAGARPANCHAYAT	756293

373.	CHANDRAPUR	GONDPIPARI NAGARPANCHAYAT	1205646
374.	CHANDRAPUR	PROMBHURNA NAGARPANCHAYAT	1468647
375.	CHANDRAPUR	SHINDEWAHI NAGARPANCHAYAT	2367143
376.	GADCHIROLI	GADCHIROLI NAGARPARISHAD	8861916
377.	GADCHIROLI	DESAI GANJ NAGARPANCHAYAT	5154926
378.	GADCHIROLI	ARMORI NAGARPANCHAYAT	5192133
379.	GADCHIROLI	KHORCHI NAGARPANCHAYAT	697585
380.	GADCHIROLI	BHAMBARAGAD NAGARPANCHAYAT	3088349
381.	GADCHIROLI	DHANORA NAGARPANCHAYAT	1542891
382.	GADCHIROLI	SHIRONCHA NAGARPANCHAYAT	1933717
383.	GADCHIROLI	KURKHEDA NAGARPANCHAYAT	1252396
384.	GADCHIROLI	AHERI NAGARPANCHAYAT	3126892
385.	GADCHIROLI	YETAKALLI NAGARPANCHAYAT	2874015
386.	GADCHIROLI	CHAMORSHI NAGARPANCHAYAT	3722081
387.	GADCHIROLI	MURCHEHRA NAGARPANCHAYAT	438282
TOTAL			**305,00,00,000 /-**

-TRUE COPY-

To decide the Policy regarding the procedure as per the recommendations of the 15th Central Finance Commission for distribution and utilization of grants to local bodies under category of Non-Million Plus Cities in state,

Government Maharashtra
Urban Development Department,
Govt. Decision No. FFC 2020 / Pr. No. 56 / Navi-4
Ministry, Mumbai-400032
Date: - October 28, 2020.

Read: -

1. Guideline No. 15 (2) FC-XV / FCD / 2020-25 of the Ministry of Finance, Government of India, dated 1st June, 2020.
2. Letter No. N-11025-01- / 2018-AMRUT-IIB, dated August 4, 2020, issued by the joint secretary Ministry of Housing and Urban Affairs, Government of India.

Introduction: -

The 15th Finance Commission has been come into force since the year 2020-21. The final report of the 15th Central Finance Commission will be published till October 30, 2020. Out of which the first report for 2020-21 and explanatory memorandum from the Central Government has received. Chapter 5 of this report deals with local institutions. Accordingly, under the 15th Finance Commission, an independent fund will be sanctioned to the Civil Local bodies in the State for **Million plus Cities and Non-Million plus Cities**. Under Million Plus Cities following Municipal Corporations/Urban Agglomeration in the State are includes. Greater Mumbai Agglomeration, Pune Agglomeration, Nagpur Agglomeration, Nashik Agglomeration, Aurangabad Agglomeration, Vasai virar city. In Greater Mumbai Agglomeration includes Greater Mumbai, Mira-Bhayindar, Thane, New Mumbai, Kalyan -Dombivali, Bhivandi and Ulhasnagar as well as Badlapur and Ambarnath Municipal Council. Hence Greater Mumbai, New Mumbai, Thane Kalyan, Domibvali, Pune Pimpari Chinchawad, Nagpur, Aurangabad, Nashik, And Vasai Virar, Mira

Bhainder, Ullhasnagar, Bhivandi, Ambarnath and Badlapur are included in **Million plus Cities.** And remaining all Corporation/ Council / Nagar panchayat are included in **Non-Million plus Cities.** For the years 2020-21 grant of Rs 2860 crore has been marked to the civil local bodies in Maharashtra, details as follows.

<table>
<tr><th>State</th><th colspan="2">Million Plus Cities</th><th colspan="2">Non-Million Plus Cities</th><th>Total Grant</th></tr>
<tr><td rowspan="4">Maharashtra</td><td colspan="2"><u>1586 Croro</u></td><td colspan="2"><u>1220 crores</u></td><td><u>2806 crores</u></td></tr>
<tr><td>Air Quality</td><td>793 crores</td><td>Basic Grants</td><td>50%</td><td></td></tr>
<tr><td>Solid Waste Management / Sanitation</td><td>793 crores</td><td>Tied Grants: -
1. Drinking Water (Including rainwater harvesting and Recycling) (25%)
2. Solid waste management (25%)</td><td>50%</td><td></td></tr>
<tr><td>Greater Mumbai, New Mumbai, Thane Kalyan, Domibvali, Pune Pimpari Chinchawad, Nagpur Aurangabad, Nashik, And Vasai Virar, Mira Bhainder, Ullhasnagar, Bhivandi, Ambarnath</td><td colspan="2">All Municipal Corporation / Municipal Council / Nagarpanchayat / Cantonment Board.</td><td></td></tr>
</table>

The matter of decide the procedure for distribution and disbursement of grant was under consideration of Government. Separate instructions will be issued regarding procedure for distribution and disbursement of grants received by the local bodies under category Million Plus Cities under 15th Central Finance Commission.

<u>Government Resolution</u>

Procedure regarding distribution and disbursement of grants received by the local bodies under category Non- Million Plus Cities as per 15th Central Finance Commission is as follow.

I.Criteria of disbursement of fund:-

As per 15th Central Finance Commission grant will be allocated to Non- million cities in equal installment for two different type as under.

A. Basic Grants / United Grants

B. Tied Grants

a) Drinking Water (including rainwater harvesting and recycling)

b) Solid waste management.

Criteria No.1 (Eligibility):- As mentioned in introduction, all other Municipal Corporation/ Municipal Council / Nagar panchayat/ Cantonment Board are eligible except civil local bodies those are include in **Million plus Cities.**

Criteria No.2 (Population):- Out of said Grant 90 % grant will be allocated to Eligible Municipal Corporation/ Municipal Council / Nagar Panchayat/ Cantonment Board under Group of **Non-Million plus Cities** in proportion to the population in the year 2011.

Criteria No.3 (Area):-):- Out of said Grant 10 % grant will be allocated to Eligible Municipal Corporation/ Municipal Council / Nagar panchayat/ Cantonment Board under the group of **Non-Million plus Cities** in proportion to the area in the year 2011.

II. Works to be undertaken from received grant for Non-Million plus Cities under 15th Finance Commission.

A) Tied Grant :- (50 % of Total grant)

1. 50% of tied grant is compulsorily be spend on a) Drinking Water (including rainwater harvesting and recycling)

2. Remaining 50% grant is compulsorily be spend on b) solid waste management.

3. if the requirement of above a) and b) is completed and no need of above said component then grant can be utilized another component.

B) Basic Grants / Untied Grants:-

Basic grants / untied grants received under 15th Finance Commission is permissible to Municipal Corporation for a duties mentioned in section 63 of Maharashtra Municipal Corporation Act and in respect of Municipal Council , Nagar panchayat duties mentioned under Section 49/(2) of Nagar panchayat Act , subject to following conditions.

1. Share of Municipal Corporation/Municipal Council and Additional cost require to complete work under scheme related to infrastructural facilities of Central or state government. (If such project in a process of approval, amount of public share can be retain)

2. Expenditure for re-payment of loan taken by Municipal Corporation/Municipal Council from Government/Life Insurance Corporation India/HUDKO for scheme related to infrastructural facilities. If said loan is not repaid by concerned local bodies, Government will pay require amount to concerned local bodies for repayment of such loans.

3. Expenses for payment of water bill and Electricity bill (excluding fine amount)

4. If there is no scope to spend the amount on matters mentioned in 1 to 3, balance amount of grant can be spend for other purpose prescribed under related law excepting salary of employee and other establishment cost.

III. Procedure of appropriation of fund of 15th finance commission

Procedure for Administrative Approval:-

1. Municipal Corporation:- In the case of the Municipal Corporation, Commissioner Municipal Corporation shall have power to give administrative approval to the proposals of work which are to be carried out from the funds of Non-Million plus Cities under 15th finance commission.

2. Municipal Council / Nagarpanchayat: -

i) In case of Work mentioned in Sr. No1, 2 and 3 in above paragraph (II) (B), concerned Chief Officer of Municipal Councils / Nagar Panchayats shall have power to give administrative approval to the said works.

ii) In case of Work mentioned in Sr. No.1 and 2 in above paragraph (II) (A) and paragraph (II) (B) Sr. No. 4, Chief Officer of Municipal Councils / Nagar Panchayats shall have power to give administrative approval to the said works in case of A class Municipal Council upto 30 Lakhs, in case of B class Municipal Council upto 20 Lakhs and in case of C class Municipal Council / Nagar panchayat upto 10 Lakhs.

iii) Authority to give administrative approval for other works except above shall be vested into Collector.

3. Cantonment Boards:- In the case of the Cantonment Boards, Chief executive officer shall have power to give administrative approval to the proposals of work which are to be carried out from the funds of Non-Million plus Cities under 15th finance commission.

However before giving administrative approval kindly ensure the fulfillment of following conditions:

1. All the proposed works should be permissible works under the 15th Finance Commission.

2. All work should be recommended by resolution of General Body meeting of local body.

3. All work must have a technical sanction of competent authority.

4. In case of proposals of construction of any structure it must be carried out on land owned by concern local civil body.

5. It is mandatory to obtain a certificate from the Town Planning Office as to whether the constructions are in accordance of the development plan of city or not.

6. While purchasing fire fighting vehicles/Equipment, technical approval of Director of fire fighting services shall be mandatory.

(IV) Procedure for submission of Tied Grants demand proposals: -

1. Ministry of Housing and Urban Development, Government of India will be nodal ministry for demand of grants for group of Non-Million Plus Cities for tied Grants and group of million plus cities for grant for the water supply etc. and solid waste management for the period 2021-22 to 2025-26.

2. The Marking Scheme has been prescribed by the Ministry of housing and urban affairs, Government of India for the distribution grant. Copy of which is annexed herewith.

3. According to this marking scheme, all civil local bodies of the **Million Plus Cities** and **Non-Million Plus Cities** groups shall provide information in respect of Water Supply and Water Waste Management and Solid Waste Management as mentioned in annexure 1 to the Directorate of Municipal Administration before 30 November 2020.

4. Commissioner/Director, Municipal Administration, shall upload information according to marking scheme mentioned in annexure 1 of all local bodies on City Finance Portal with the permission of the Chief Secretary (Navi-2) before 31 December 2020.

(V) Procedure for distribution of fund :-

Grant under the 15th Finance Commission will be deposited through R.T. G. S. by the Government to the concerned Civic Local body from reserve bank of India using Electronic Transfer System directly to the nationalized bank account of the concerned Municipal Corporation / Municipal Council / Nagar Panchayat / Cantonment boards. And for the same it is mandatory to open independent account in Nationalized Bank and to submit the Account details along with account number to the government without any delay. After the disbursement of installment under the 15th Finance Commission as above in the bank account, it is mandatory for the concerned bank manager of said nationalized bank in which the account was open to inform to concerned local civil body through Email or letter in respect of deposited money. Thereafter it will be mandatory for all concerned local body to inform immediately through written confirmation of receipt of the said fund via email or letter to the government.

(VI) Submission of Appropriation certificate:

The funds from the Central Government under the 15th Finance Commission will be received in the month of June and October. Therefore, in order to demand further installment of grant from Central government, it is necessary to submit Appropriation

Certificate of appropriation of at least 70% expenditure to the Government before 15 May and 15 September every year through Director Municipal Administration. It will be the responsibility of the Director of Municipal Administration to collect the Certificate of Appropriation from all Civil Local bodies and submit a consolidated Appropriation certificate to the government. If any civil local bodies failed to submit appropriation certificate as mentioned above to Directorate of Municipal Administration Department Mumbai, then it shall be presumed that they are not capable to spend the fund amount and said fund shall be allotted to needy local bodies who spend the fund amount in time.

2. Grants under the 15th Finance Commission will be received from the Central Government in the next financial year only after submission of the Certificate of Appropriation of funds in the first financial year to the Central Government. To get more and more central grant, it is responsibility of concerned Commissioner, Municipal Corporation and Chief Officer of Municipal Council / Nagar Panchayat, Chief Executive Officer of the Cantonment Boards to use the grant amount within stipulated time.

(VII) To Review of implementation of schemes carried out from the funds of 14th Finance Commission –

All concerned should strictly follow the above procedure prescribed by Government. Commissioner/Director of Municipal Administrative Department and divisional commissioner/Regional Director of Municipal administration shall take review of implementation of scheme by conducting meeting and submit report as well as appropriation certificate immediately to government.

This Government Decision has been made available on the website of the Government of Maharashtra and its code number is 202010281102172825.

By the order of the Governor of Maharashtra

(P.J.Jadhao)

Joint -Secretary, Government of Maharashtra

Copy,

1 Principal Secretary to the Hon'ble Chief Minister

2. Secretary to the Hon'ble Minister of State (Urban Development)

3. Hon'ble Chief Secretary, government of Maharashtra , Ministry, Mumbai

4. Principal Secretary, Ministry of finance Department, Mumbai,

5. Directors of Municipal Administration, varali, Mumbai

6. Accountant General office (Audit) Maharashtra 1/2 , Mumbai / Nagpur office

7. Accountant General office(Account) Maharashtra 1/2 , Mumbai / Nagpur office

8. Directors, Town Planning, Pune.

9. Fire Fighting Consultant, State Fire Fighting Training center, Kole Kalyan Mumbai.

10. Commissioner, All Municipal Corporation

11. Resident Audit officer Mumbai.

12. Lending and Accounting officer Mumbai.

13. Chief Officer All Municipal Council / Nagar Panchayati.

14. Chief Executive officer, All Cantonment Boards,

15. All District Treasury Officer.

16. Personal secretary to Secretary (UD-2) Urban Development Department

17. Selection file Navi -4 karyasan , Urban Development Department, Ministry, Mumbai

-TRUE COPY-

ANNEXURE A-25

For releasing the first installment of tied grants as per recommendations of 15th Central Finance Commission for (a) drinking water (Including rain water harvesting and recycling) and (b) solid waste management for the year 2020-21 to Non-Million Plus Cities.

Government Maharashtra
Urban Development Department,
Govt. Decision No. FFC 2020 / Pr. No.90 / Navi-4
Ministry, Mumbai-400032
Date: - 10 November, 2020.

Referance :-

1. Urban Development Department, Govt. Decision No. FFC 2020 / Pr.kr.56/navi-04 date 28/10/2020.

2. Central Government Letter (**ULB Release No.12 / 2020-21)** Numbers F15 (03) / FC-XV / FCD / 2020- 25, date 05.11.2020.

Introduction: -

The first report of the 15th Central Finance Commission for the year 2020-21 and explanatory memorandum from the Central Government has been received. Accordingly as per above referred order dated 05/11/2020 under 15th Finance Commission first instalment of tied grant of 305 crore for year 2020-2021 is received for civil local bodies of group of Non-Million Plus Cities for (a) drinking water (Including rain water harvesting and recycling) and (b) solid waste management. The matter of distrubution of grant to local bodies in a state was under considertion of the Government.

Government Decision: -

1. As per the recommendation of the 15th Central Finance Commission, Central Government release Tied Grant of Rs. 305 Crore as per above referred order No. 2 for financial year 2020-2021 for (a) drinking water (Including rain water harvesting and recycling) and (b) solid waste management is permitted to be distribute among Municipal Corporation/Muncipal council and local boards in terms of i) population ii) Area under group “D” of Non-Million Plus Cities as mentioned in Annexure.

2. Amount Rs. 305 Crore as mentioned in Annexure, is being handed over to commissoner and director of municipal administration directorate. Accordingly

commissoner and director of municipal administration directorate will distribute the share of amount to local civil bodies as mentioned in Annexure immediately by RTGS.

3. As per the recommendation of the 15th Central Finance Commission, Commissioner shall submit appropriation certificate relation to Tied Grant for (a) drinking water (Including rain water harvesting and recycling) and (b) solid waste management to the State government immediately in prescribed form as provided. While spending the grant amount it is to be used as per the provisions and directions issued by Government time to time. Said grant is distributed "**conditionally**".

4. As per the recommendation of the 15th Central Finance Commission, first installment of grant FOR (a) drinking water (Including rain water harvesting and recycling) and (b) solid waste management is distributed as mentioned above to "D" class Municipal Corporation, Muncipal council, Nagar Panchayat and contonment board for Non Million Plus Cities. For financial year 20-21 said expenditure to be made from available provision under account "Demand No. F.2,2217 urban development,05,other urban development scheme, 191 civic bodies, urban development authorities, urban development board, etc. Assistant (00) (03) as per recommendation of 15th Central Finance Commission"

5. In order to draw and disburse said fund, Director of Municipal Administration and Assistant Directorate Municipal Administration declare to be a comptroller and drawing / disbursing officer respectively.

6. This government resolution is published as per the consent of finance department reference No. 30/2020/VCA, Date 09 November 2020.

7. This Government Decision is available on the website of the Government of Maharashtra www.maharashtra.gov.in and its code number is (202011091603085725). This order is published after verification by digital signature.

By order and in the name of the Governor of Maharashtra,

(Sharad Kirwale)

Desk Officer, Government of Maharashtra

Copy,

1. Private Secretary to the Hon'ble Minister (Urban Development)
2. Secretary to the Hon'ble Minister of State (Urban Development)
3. Hon'ble Chief Secretary, Ministry, Mumbai

4. Additional Chief Secretary, Finance Department, Ministry, Mumbai

5. Director of Municipal Administration Department, varali, Mumbai

6. Accountant General office Maharashtra 1/2 , Mumbai / Nagpur office

7. Contribution and Accounts Officer, Mumbai.

8. All Divisional Commissioner

9. All Collectors

10. Commissioner, Concern All Municipal Corporation

11. Chief Officer of All Municipal council / Nagar Panchayati

12. All district Treasury Officer

13. Personal secretary of Hon'ble Principal Secretary, Ministry of Urban Development Department, Ministry, Mumbai,

14. Personal secretary of Hon'ble Principal Secretary Urban Development Department-2, Ministry, Mumbai

15. Nivad Nasti Navi -4 karyasan , Urban Development Department, Ministry, Mumbai.

ANNEXURE

Sr. NO.	DISTRICT	MUNICIPAL CORPORATION/ MUNICIPAL COUNCIL / NAGAR PANCHYAT/CANTONMENT BOARD NAME	FUND PAYABLE BY POPPULATION AND AREA (AMOUNT RS.)
1.	2	3	4
1.	THANE	SAHAPUR NAGARPANCHYAT	19,19,791
2.	THANE	MURBAAD NAGARPANCHYAT	34,13,649
3.	PALGHAR	JAWHAR MUNICIPAL COUNCIL	18,72,716
4.	PALGHAR	DAHANU MUNICIPAL COUNCIL	79,63,474
5.	PALGHAR	PALGHAR MUNICIPAL COUNCIL	1,24,98,536
6.	PALGHAR	VIKRAMGAD NAGARPANCHYAT	16,84,736
7.	PALGHAR	TALASARI NAGARPANCHYAT	35,23,474
8.	PALGHAR	WADA NAGARPANCHYAT	28,46,986
9.	PALGHAR	MOUKHADA NAGARPANCHYAT	23,69,400
10.	RAIGAD	PANVEL MUNICIPAL CORPORATION	7,77,29,414
11.	RAIGAD	KHOPOLI MUNICIPAL COUNCIL	1,14,45,159
12.	RAIGAD	ALIBAAG MUNICIPAL COUNCIL	30,53,966
13.	RAIGAD	MAHAD MUNICIPAL COUNCIL	41,21,662
14.	RAIGAD	PEN MUNICIPAL COUNCIL	58,37,031
15.	RAIGAD	ROHA MUNICIPAL COUNCIL	30,65,144
16.	RAIGAD	URAN MUNICIPAL COUNCIL	41,21,662
17.	RAIGAD	MURUD-JANJIRA MUNICIPAL COUNCIL	58,37,031
18.	RAIGAD	SHREEVARDHAN MUNICIPAL COUNCIL	23,36,794
19.	RAIGAD	MATHERAAN MUNICIPAL COUNCIL	9,24,667
20.	RAIGAD	KARJAT MUNICIPAL COUNCIL	45,66,308
21.	RAIGAD	MAHSADA MUNICIPAL COUNCIL	17,22,660
22.	RAIGAD	TADA NAGARPANCHYAT	16,10,233
23.	RAIGAD	POLADPUR NAGARPANCHYAT	9,95,957
24.	RAIGAD	MANGAAV NAGARPANCHYAT	32,74,194
25.	RAIGAD	KHALAPUR NAGARPANCHYAT	13,42,524
26.	RATNAGIRI	RATNAGIRI NAGARPANCHYAT	1,13,78,664
27.	RATNAGIRI	CHUPLUN NAGARPARISHAD	85,22,466
28.	RATNAGIRI	KHED PARISHAD	2557347

29.	RATNAGIRI	RAJAPUR NAGARPARISHAD	1652303
30.	RATNAGIRI	DAPOLI NAGARPANCHYAT	2440621
31.	RATNAGIRI	GUHAGAD NAGARPANCHAYAT	2108753
32.	RATNAGIRI	DEVRUP NAGARPANCHAYAT	2680085
33.	RATNAGIRI	LANJYA NAGARPANCHAYAT	2051325
34.	RATNAGIRI	MANDALGAD NAGARPANCHAYAT	789305
35.	SINDUDURG	SANVATWADI NAGARPANCHAYAT	36701988
36.	SINDUDURG	VENDURLA NAGARPARISHAD	3206695
37.	SINDUDURG	MALVAN NAGARPARISHAD	2933688
38.	SINDUDURG	KANAKWALI NAGARPANCHAYAT	2699138
39.	SINDUDURG	BHAGLE VAIBHAVWADI NAGARPANCHAYAT	56157611
40.	SINDUDURG	VASAILOHA MARG NAGARPANCHAYAT	101963
41.	SINDUDURG	KUDAL NAGARPANCHAYAT	2483610
42.	SINDUDURG	DEVGAD JAMSANDE NAGARPANCHAYAT	2423155
43.	NASHIK	MALEGAON MAHANAGARPALIKA	70171290
44.	NASHIK	MANMAD NAGARPARISHAD	12666887
45.	NASHIK	IGATPURI NAGARPARISHAD	5626992
46.	NASHIK	NANDGAON NAGARPARISHAD	3549369
47.	NASHIK	SINNAR NAGARPARISHAD	14413037
48.	NASHIK	YEVLA NAGARPARISHAD	7677974
49.	NASHIK	TRABKESHWAR NAGARPARISHAD	1808953
50.	NASHIK	BHAGUL NAGARPARISHAD	1802185
51.	NASHIK	SATALA NAGARPARISHAD	6613745
52.	NASHIK	NIPHAL NAGARPANCHAYAT	3334770
53.	NASHIK	KALWAN NAGARPANCHAYAT	3297697
54.	NASHIK	DEVLA NAGARPANCHAYAT	2319823
55.	NASHIK	PETH NAGARPANCHAYAT	1466921
56.	NASHIK	SURGANA NAGARPANCHAYAT	1043011
57.	NASHIK	CHANDWAD NAGARPANCHAYAT	5071150
58.	NASHIK	INDORI NAGARPANCHAYAT	3398528
59.	AHMADNAGAR	AHMADNAGAR MAHANAGARPALIKA	52766389
60.	AHMADNAGAR	SHRIRAMPUR NAGARPARISHAD	13194703

61.	AHMADNAGAR	SANGAMNER NAGARPARISHAD	10116953
62.	AHMADNAGAR	KOPARGAON NAGARPARISHAD	9805993
63.	AHMADNAGAR	RAHURI NAGARPARISHAD	7295944
64.	AHMADNAGAR	RAHATA PIMPLAS NAGARPARISHAD	4114370
65.	AHMADNAGAR	SHRIGONDA NAGARPARISHAD	7944985
66.	AHMADNAGAR	DEVLALI / POURA NAGARPARISHAD	6225532
67.	AHMADNAGAR	PATHARDI NAGARPARISHAD	5272580
68.	AHMADNAGAR	NIWASA NAGARPARISHAD	4681742
69.	AHMADNAGAR	SHIRDI NAGARPARISHAD	5699558
70.	AHMADNAGAR	JANKHED NAGARPARISHAD	8342251
71.	AHMADNAGAR	AKOLE NAGARPANCHAYAT	3398307
72.	AHMADNAGAR	KARJAT NAGARPANCHAYAT	4666194
73.	AHMADNAGAR	PARNER NAGARPANCHAYAT	4121869
74.	AHMADNAGAR	SHEVGAON NAGARPARISHAD	7966979
75.	AHMADNAGAR	AHMADNAGAR KATAKMANDAL	4698826
76.	NANDURBAR	NANDURBR NAGARPARISHAD	17228162
77.	NANDURBAR	SHAHADA NAGARPARISHAD	8901936
78.	NANDURBAR	TALODA NAGARPARISHAD	3875702
79.	NANDURBAR	NAVAPUR NAGARPARISHAD	5502946
80.	NANDURBAR	DHADGAON WALFALE NAGARPANCHAYAT	2272003
81.	DHULE	DHULE MAHANAGARPALIKA	55847890
82.	DHULE	SHIRPURWARWALE NAGARPARISHAD	11293827
83.	DHULE	DONDAICHAWARWALE NAGARPARISHAD	8037235
84.	DHULE	SINDHKHED NAGARPANCHAYAT	4496550
85.	DHULE	SAKHARI NAGARPANCHAYAT	3410860
86.	JALGOAN	JALGAON MAHANAGARPALIKA	68896884
87.	JALGOAN	BHUSALWAL NAGARPARISHAD	27463225
88.	JALGOAN	AMALNER NAGARPARISHAD	14426654
89.	JALGOAN	CHOPADA NAGARPARISHAD	10726655
90.	JALGOAN	CHALISGAON NAGARPARISHAD	14770752
91.	JALGOAN	PACHORA NAGARPARISHAD	8769618
92.	JALGOAN	FAIJPUR NAGARPARISHAD	3994749
93.	JALGOAN	YAWAL NAGARPARISHAD	7454399

94.	JALGOAN	RAVER NAGARPARISHAD	3974459
95.	JALGOAN	SAVADA NAGARPARISHAD	3041656
96.	JALGOAN	PAROLA NAGARPARISHAD	5583344
97.	JALGOAN	DHARANGAON NAGARPARISHAD	5276436
98.	JALGOAN	ARENDOL NAGARPARISHAD	4598407
99.	JALGOAN	JAMNER NAGARPARISHAD	8307472
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144.	SATARA	KHANDALA NAGARPARISHAD	1672717
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355.	WARDHA	KARANAJA NAGARPANCHAYAT	1905721
356.	CHANDRAPUR	CHANDRAPUR MAHANAGARPALIKA	48319776

357.	CHANDRAPUR	BHALLARPUR NAGARPARISHAD	13522689
358.	CHANDRAPUR	WARORA NAGARPARISHAD	7358658
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363.	CHANDRAPUR	GADCHANDUR NAGARPARISHAD	4537525
364.	CHANDRAPUR	CHIMUR NAGARPARISHAD	5824910
365.	CHANDRAPUR	NAGBHID NAGARPARISHAD	5806061
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370.	CHANDRAPUR	PROMBHURNA NAGARPANCHAYAT	1486374
371.	CHANDRAPUR	SHINDEWAHI NAGARPANCHAYAT	2404683
372.	GADCHIROLI	GADCHIROLI NAGARPARISHAD	8968306
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382.	GADCHIROLI	CHAMORSHI NAGARPANCHAYAT	3766973
	GADCHIROLI	MURCHEHRA NAGARPANCHAYAT	443548
TOTAL			**305,00,00,000/-**

-TRUE COPY-

BEFORE THE NATIONAL GREEN TRIBUNAL,

WESTERN ZONE BENCH PUNE

ORIGINAL APPLICATION NO. 60 OF 2019 (WZ)

Ganesh Dadarao Anasane … Applicant

Versus.

Amravati Municipal Corporation & Ors. … Respondents

COMPLIANCE AFFIDAVIT ON BEHALF OF THE RESPONDENT NO. 1 IN TERMS OF THE ORDER DATED 22.09.2020 PASSED BY THIS HON'BLE TRIBUNAL

PAPER BOOK

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BEFORE THE NATIONAL GREEN TRIBUNAL,

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15.	**ANNEXURE A-40:** A copy of the photographs showing the trial run undertaken by the Respondent No. 1 at the MSW Plant.	1093-1094
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17.	**ANNEXURE A-42:** A copy of the agreement between M/s Global Eco Save System and Respondent No. 1 Corporation of Amravati dated 24.01.2003.	1099-1110
18.	**ANNEXURE A-43:** A copy of the Authorization Letter dated 07.06.2003.	1111-1115
19.	**ANNEXURE A-44:** A copy of the consent to operate dated 04.09.2020 to the Bio-Medical Waste Facility.	1116-1130
20.	**ANNEXURE A-45:** A copy of the data of the Bio-medical waste generated for the month of October, 2020 within the Respondent No. 1 Corporation.	1131
21.	**ANNEXURE A-46:** A copy of the data of the Bio-Medical Waste generated within the jurisdiction of the Respondent No. 1 in the month of April, 2021.	1132
22.	**ANNEXURE A-47:** A copy of the COVID-19 data generated within the area of Respondent No. 1 Corporation in the month of October, 2020.	1133-1136
23.	**ANNEXURE A-48:**	1137-1140

	A copy of the COVID-19 data generated within the area of Respondent No. 1 Corporation in the month of April, 2021.	
24.	**ANNEXURE A-49:** A copy of the receipts of the fines imposed on hospitals.	1141-1144
25.	**ANNEXURE A-50:** A copy of the Show Cause Notice bearing No. O. W. No. NGT/WZ/PUNE/626/2020 dated 24.09.2020 issued by this Hon'ble Tribunal.	1145

SANGRAMSINGH R. BHONSLE, SAMRIDHI S. JAIN, NRUPAL A DINGANKAR, PUSHKARA A. BHONSLE

ADVOCATES

A-10, LGF,

LAJPAT NAGAR III,

NEW DELHI- 110024.

Ph: +91 7773969845.

Email: srb.chambers@gmail.com

Date : 09.06.2021

ANNEXURE A-26

Distribution of the second installment of the basic Grant to Non-Million Plus Cities for financial year 2020-2021 as per the recommendations of the 15th Central Finance Commission.

Government of Maharashtra
Urban Development Department
Government Resolution No. FFC-2021 / C.No.25 / Navi-4
Mantralay, Mumbai- 400032
Date : - 9, March 2021

Reference: -

1. Central Government letter no. F15 (03) / FC-XV / FCD / 2020-25, dated 01.03.2021.

2. Urban Development Department, Govt. Decision No. FFC 2020 / Pr.kr.56/navi-04 date 28/10/2020.

Introduction: -

As per above referred order dated 01/03/2021 under 15th Finance Commission second instalment of grant of 305 crore for year 2020-2021 is received for civil local bodies of group of Non Million Plus Cities. The matter of distrubution of said grant to local bodies in a state is under considertion of the Government.

Government Resolution: -

1. As per the recommendation of the 15th Central Finance Commission, Central Government released basic Grant of Rs. 305 Crore in the financial year 2020-2021, to (D) class Municipal Corporation, Muncipal council, Nagar Panchayat and contonment board on the basis of 1. Population, 2. Area respectively for the non million plus cities as per annexure. Procedure for allocation of fund will be notified by separate order.

2. Said amount of Rs. 305 Crore for distribution among the civic bodies as per Annexure is handed over to Commissioner / Director Municipal Administration Directorate. Commissioner / Director of Municipal Administration are directed to

distribute the said amount of share as per Annexure to concerned civil local bodies immediately by RTGS.

3. As per the recommendation of the 15th Central Finance Commission, Commissioner may submit appropriation certificate to the State government immediately in prescribed form as provided. While spending the grant amount it is to be used as per the provisions and directions issued by Government time to time. Said grant is being distributed "**conditionally**".

4. As per the recommendation of the 15th Central Finance Commission, first installment of grant is distributed as mentioned above to "D" class Municipal Corporation, Muncipal council, Nagar Panchayat and contonment board for Non Million Plus Cities. For financial year 20-21 said expenditure to be made from available provision under account "Demand no. F.2,2217 urban development, 05,other urban development scheme, 191 civic bodies, urban development authorities, urban development board, etc. Assistant (00) (03) as per recommendation of 15th Central Finance Commission Assistant Grants (Compulsory) to civic bodies, (2217A314) 31, Grants (excluding salary)" as per recommendation of 15th Central Finance Commission.

5. In order to draw and disburse said fund, Director of Municipal Administration and Assistant Directorate Municipal Administration declare to be a comptroller and drawing / disbursing officer respectively.

6. This government resolution is published as per the consent of finance department reference File No.C.No.04/ finance department Date 02.03.2021.

7. This Government Decision is available on the website of the Government of Maharashtra www.maharashtra.gov.in and its code number is (202103091533519025). This order is published after verification by digital signature.

By order and in the name of the Governor of Maharashtra,

(Sharad Kirwale)

Desk Officer, Government of Maharashtra

Copy,

1. Private Secretary to the Hon'ble Minister (Urban Development)
2. Secretary to the Hon'ble Minister of State (Urban Development)
3. Hon'ble Chief Secretary, Ministry, Mumbai
4. Additional Chief Secretary, Finance Department, Ministry, Mumbai
5. Director of Municipal Administration Department, varali, Mumbai
6. Accountant General office Maharashtra 1/2 , Mumbai / Nagpur office

7. Contribution and Accounts Officer, Mumbai.

8. All Divisional Commissioner

9. All Collectors

10. Commissioner, Concern All Municipal Corporation

11. Chief Officer of All Municipal council / Nagar Panchayati

12. All district Treasury Officer

13. Personal secretary of Hon'ble Principal Secretary, Ministry of Urban Development Department, Ministry, Mumbai,

14. Personal secretary of Hon'ble Principal Secretary Urban Development Department-2, Ministry, Mumbai

15.Nivad Nasti Navi -4 karyasan , Urban Development Department, Ministry, Mumbai

ANNEXURE

Sr. NO.	DISTRICT	MUNICIPAL CORPORATION/ MUNICIPAL COUNCIL / NAGAR PANCHYAT/CANTONMENT BOARD NAME	FUND PAYABLE BY POPPULATION AND AREA (AMOUNT RS.)
1.	2	3	4
1.	THANE	BHIWANDI NIZAMPUR MAHANAGARPALIKA	195312378
2.	THANE	SAHAPUR NAGARPANCHYAT	1804281
3.	THANE	MURBAAD NAGARPANCHYAT	3206544
4.	PALGHAR	JAWHAR MUNICIPAL COUNCIL	1757126
5.	PALGHAR	DAHANU MUNICIPAL COUNCIL	7475724
6.	PALGHAR	PALGHAR MUNICIPAL COUNCIL	17774476
7.	PALGHAR	VIKRAMGAD NAGARPANCHYAT	1591083
8.	PALGHAR	TALASARI NAGARPANCHYAT	3322299
9.	PALGHAR	WADA NAGARPANCHYAT	2677706
10.	PALGHAR	MOUKHADA NAGARPANCHYAT	2243727
11.	RAIGAD	PANVEL MUNICIPAL CORPORATION	72889555
12.	RAIGAD	KHOPOLI MUNICIPAL COUNCIL	10748857
13.	RAIGAD	ALIBAAG MUNICIPAL COUNCIL	2860868
14.	RAIGAD	MAHAD MUNICIPAL COUNCIL	3862959
15.	RAIGAD	PEN MUNICIPAL COUNCIL	5475405
16.	RAIGAD	ROHA MUNICIPAL COUNCIL	2871215
17.	RAIGAD	URAN MUNICIPAL COUNCIL	4183822
18.	RAIGAD	MURUD-JANJIRA MUNICIPAL COUNCIL	1780408
19.	RAIGAD	SHREEVARDHAN MUNICIPAL COUNCIL	2192141
20.	RAIGAD	MATHERAAN MUNICIPAL COUNCIL	874030
21.	RAIGAD	KARJAT MUNICIPAL COUNCIL	4283195
22.	RAIGAD	MAHSADA MUNICIPAL COUNCIL	1620265
23.	RAIGAD	TADA NAGARPANCHYAT	1524829
24.	RAIGAD	POLADPUR NAGARPANCHYAT	936388
25.	RAIGAD	MANGAAV NAGARPANCHYAT	3082098
26.	RAIGAD	KHALAPUR NAGARPANCHYAT	1268827
27.	RATNAGIRI	RATNAGIRI NAGARPANCHYAT	10663590
28.	RATNAGIRI	CHUPLUN NAGARPARISHAD	7994996
29.	RATNAGIRI	KHED PARISHAD	2397632

30.	RATNAGIRI	RAJAPUR NAGARPARISHAD	1553926
31.	RATNAGIRI	DAPOLI NAGARPANCHYAT	2289888
32.	RATNAGIRI	GUHAGAR NAGARPANCHAYAT	1995565
33.	RATNAGIRI	DEVRUKH NAGARPANCHAYAT	2533499
34.	RATNAGIRI	LANJYA NAGARPANCHAYAT	3833453
35.	RATNAGIRI	MANDALGAD NAGARPANCHAYAT	746736
36.	SINDUDURG	SANVATWADI NAGARPANCHAYAT	3473282
37.	SINDUDURG	VENGURLA NAGARPARISHAD	2174432
38.	SINDUDURG	MALVAN NAGARPARISHAD	2753496
39.	SINDUDURG	KANAKWALI NAGARPANCHAYAT	2536501
40.	SINDUDURG	VABHAVE VAIBHAVWADI NAGARPANCHAYAT	542045
41.	SINDUDURG	KASAI DOLA MARG NAGARPANCHAYAT	967821
42.	SINDUDURG	KUDAL NAGARPANCHAYAT	2330118
43.	SINDUDURG	DEVGAD JAMSANDE NAGARPANCHAYAT	3245650
44.	NASHIK	MALEGAON MAHANAGARPALIKA	65715321
45.	NASHIK	MANMAD NAGARPARISHAD	11890770
46.	NASHIK	IGATPURI NAGARPARISHAD	5301195
47.	NASHIK	NANDGAON NAGARPARISHAD	3327037
48.	NASHIK	SINNAR NAGARPARISHAD	10742092
49.	NASHIK	YEVLA NAGARPARISHAD	7202144
50.	NASHIK	TRABKESHWAR NAGARPARISHAD	1695535
51.	NASHIK	SATANA NAGARPARISHAD	6225516
52.	NASHIK	NIPHAL NAGARPANCHAYAT	3133876
53.	NASHIK	KALWAN NAGARPANCHAYAT	3096892
54.	NASHIK	DEVLA NAGARPANCHAYAT	2188522
55.	NASHIK	PETH NAGARPANCHAYAT	1387050
56.	NASHIK	SURGANA NAGARPANCHAYAT	980469
57.	NASHIK	CHANDWAD NAGARPANCHAYAT	4788268
58.	NASHIK	DINDORI NAGARPANCHAYAT	3205831
59.	AHMADNAGAR	AHMADNAGAR MAHANAGARPALIKA	49461312
60.	AHMADNAGAR	SHRIRAMPUR NAGARPARISHAD	12361824
61.	AHMADNAGAR	SANGAMNER NAGARPARISHAD	9889350

62.	AHMADNAGAR	KOPARGAON NAGARPARISHAD	9191493
63.	AHMADNAGAR	RAHURI NAGARPARISHAD	6879187
64.	AHMADNAGAR	RAHATA PIMPLAS NAGARPARISHAD	3877494
65.	AHMADNAGAR	SHRIGONDA NAGARPARISHAD	7537324
66.	AHMADNAGAR	DEVLALI / POURA NAGARPARISHAD	5778719
67.	AHMADNAGAR	PATHARDI NAGARPARISHAD	4974877
68.	AHMADNAGAR	NIWASA NAGARPARISHAD	4426698
69.	AHMADNAGAR	SHIRDI NAGARPARISHAD	5350416
70.	AHMADNAGAR	JAMKHED NAGARPARISHAD	7885752
71.	AHMADNAGAR	AKOLE NAGARPANCHAYAT	3196991
72.	AHMADNAGAR	KARJAT NAGARPANCHAYAT	4427199
73.	AHMADNAGAR	PARNER NAGARPANCHAYAT	3922956
74.	AHMADNAGAR	SHEVGAON NAGARPARISHAD	7528514
75.	AHMADNAGAR	AHMADNAGAR KATAKMANDAL	4413875
76.	NANDURBAR	NANDURBR NAGARPARISHAD	16163650
77.	NANDURBAR	SHAHADA NAGARPARISHAD	8335294
78.	NANDURBAR	TALODA NAGARPARISHAD	3630486
79.	NANDURBAR	NAVAPUR NAGARPARISHAD	5168150
80.	NANDURBAR	DHADGAON WALFALE NAGARPANCHAYAT	2142963
81.	DHULE	DHULE MAHANAGARPALIKA	52332336
82.	DHULE	SHIRPURWARWALE NAGARPARISHAD	10578923
83.	DHULE	DONDAICHAWARWALE NAGARPARISHAD	7561500
84.	DHULE	SINDHKHED NAGARPANCHAYAT	4236023
85.	DHULE	SAKHARI NAGARPANCHAYAT	3204156
86.	JALGOAN	JALGAON MAHANAGARPALIKA	64572693
87.	JALGOAN	BHUSALWAL NAGARPARISHAD	25732736
88.	JALGOAN	AMALNER NAGARPARISHAD	13522747
89.	JALGOAN	CHOPADA NAGARPARISHAD	10048731
90.	JALGOAN	CHALISGAON NAGARPARISHAD	13848325
91.	JALGOAN	PACHORA NAGARPARISHAD	8214943
92.	JALGOAN	FAIJPUR NAGARPARISHAD	3744369
93.	JALGOAN	YAWAL NAGARPARISHAD	7040826
94.	JALGOAN	RAVER NAGARPARISHAD	3722977

95.	JALGOAN	SAVADA NAGARPARISHAD	2849649
96.	JALGOAN	PAROLA NAGARPARISHAD	5231383
97.	JALGOAN	DHARANGAON NAGARPARISHAD	4944736
98.	JALGOAN	ARENDOL NAGARPARISHAD	4308329
99.	JALGOAN	JAMNER NAGARPARISHAD	7883075
100.	JALGOAN	BHADGAON NAGARPARISHAD	6893281
101.	JALGOAN	VARANGAON NAGARPARISHAD	7499043
102.	JALGOAN	BHODWAD NAGARPANCHAYAT	4130783
103.	JALGOAN	MUKTAI NAGAR NAGARPANCHAYAT	4084508
104.	JALGOAN	SHENDURNI NAGARPANACHAYAT	4698748
105.	PUNE	BARAMATI NAGAR PARISHAD	16695411
106.	PUNE	LONAWALA NAGAR PARISHAD	9246890
107.	PUNE	TALEGAON DHABADE NAGAR PARISHAD	7981991
108.	PUNE	DAUD NAGAR PARISHAD	6895022
109.	PUNE	INDAPUR NAGAR PARISHAD	3651736
110.	PUNE	SHIRUL NAGAR PARISHAD	2236902
111.	PUNE	JEJURI NAGAR PARISHAD	2213612
112.	PUNE	BHUR NAGAR PARISHAD	2809002
113.	PUNE	SASWAD NAGAR PARISHAD	5162424
114.	PUNE	ALANDI NAGAR PARISHAD	4120456
115.	PUNE	JUNNUR NAGAR PARISHAD	3508685
116.	PUNE	RAJGURUNAGAR NAGAR PARISHAD	4020642
117.	PUNE	CHAKAN NAGAR PARISHAD	6199519
118.	PUNE	WADGAON NAGARPANCHAYAT	2541063
119.	SANGALI	SANGALI MIRAJ KUPWAD MAHANAGARPALIKA	72251032
120.	SANGALI	ISLAMPUR NAGARPARISHAD	10645309
121.	SANGALI	VITA NAGARPARISHAD	8656703
122.	SANGALI	ASATA NAGARPARISHAD	8264207
123.	SANGALI	TASGAON NAGARPARISHAD	6801933
124.	SANGALI	JAT NAGARPANCHAYAT	7413054
125.	SANGALI	KAWATHE MAHAKAL NAGARPANCHAYAT	3326550
126.	SANGALI	KHANAPUR NAGARPANCHAYAT	1824697

127.	SANGALI	SHIROLA NAGARPANCHAYAT	2487574
128.	SANGALI	KADEGAON NAGARPANCHAYAT	2333448
129.	SANGALI	PALUS NAGARPANCHAYAT	4609777
130.	SATARA	SATARA NAGARPARISHAD	16485822
131.	SATARA	KARAD NAGARPARISHAD	7346447
132.	SATARA	PHALTAN NAGARPARISHAD	7581610
133.	SATARA	RAHITMATPUR NAGARPARISHAD	3892274
134.	SATARA	MASWAD NAGARPARISHAD	6693224
135.	SATARA	WAI NAGARPARISHAD	4987583
136.	SATARA	PANCHGANI NAGARPARISHAD	2271629
137.	SATARA	MAHABALESWAR NAGARPARISHAD	7473640
138.	SATARA	MALAKAPUR NAGARPARISHAD	4592784
139.	SATARA	LONAND NAGARPARISHAD	3454783
140.	SATARA	KOREGAON NAGARPARISHAD	3666193
141.	SATARA	MEDHA NAGARPARISHAD	753587
142.	SATARA	PATAN NAGARPARISHAD	2079026
143.	SATARA	WADUJ NAGARPARISHAD	3466794
144.	SATARA	KHANDALA NAGARPARISHAD	1585740
145.	SATARA	DAHIWADI NAGARPARISHAD	3683061
146.	SOLAPUR	SOLAPUR MAHANAGARPALIKA	134974874
147.	SOLAPUR	BARSHI NAGARPARISHAD	17387011
148.	SOLAPUR	PANDHARPUR NAGARPARISHAD	13981638
149.	SOLAPUR	KARMALA NAGARPARISHAD	3305803
150.	SOLAPUR	SANGOLA NAGARPARISHAD	7307816
151.	SOLAPUR	AKKALKOT NAGARPARISHAD	5566999
152.	SOLAPUR	MANGALVEDA NAGARPARISHAD	2984370
153.	SOLAPUR	MENDARGI NAGARPARISHAD	1738782
154.	SOLAPUR	DUDHANI NAGARPARISHAD	1569372
155.	SOLAPUR	KURDUWADI NAGARPARISHAD	3274853
156.	SOLAPUR	MALSIRAS NAGARPANCHAYAT	4365019
157.	SOLAPUR	MOHOD NAGARPARISHAD	5386264
158.	SOLAPUR	MHADA NAGARPANCHAYAT	2081559
159.	KOLAHAPUR	KOLHAPUR MAHANAGARPALIKA	76489378

160.	KOLAHAPUR	ICHALKARNGI NAGARPARISHAD	49819979
161.	KOLAHAPUR	JAISINGHPUR NAGARPARISHAD	6877322
162.	KOLAHAPUR	MALKAPUR NAGARPARISHAD	79403
163.	KOLAHAPUR	MURGUD NAGARPARISHAD	2046925
164.	KOLAHAPUR	WADGAON NAGARPARISHAD	3841322
165.	KOLAHAPUR	GAD HINGAJ NAGARPARISHAD	3788762
166.	KOLAHAPUR	KURUNDWAD NAGARPARISHAD	4020521
167.	KOLAHAPUR	KAGAL NAGARPARISHAD	7613659
168.	KOLAHAPUR	HUPARI NAGARPARISHAD	4565476
169.	KOLAHAPUR	SHIROL NAGARPARISHAD	4741657
170.	KOLAHAPUR	PANHADA NAGARPARISHAD	481587
171.	KOLAHAPUR	AJARA NAGARPANCHAYAT	2727866
172.	KOLAHAPUR	HATHKANGALE NAGARPANCHAYAT	2493805
173.	KOLAHAPUR	CHANDGAD NAGARPANCHAYAT	1962391
174.	AURANGABAD	SHILLOD NAGARPARISHAD	9233584
175.	AURANGABAD	PAITHAN NAGARPARISHAD	5785559
176.	AURANGABAD	VAIJAPUR NAGARPARISHAD	5966023
177.	AURANGABAD	GANGAPUR NAGARPARISHAD	4602832
178.	AURANGABAD	KHULTABAD NAGARPARISHAD	2318586
179.	AURANGABAD	KANNAD NAGARPARISHAD	5658364
180.	AURANGABAD	SOYEGAON NAGARPANCHAYAT	1146404
181.	AURANGABAD	KULBRI NAGARPANCHAYAT	3684723
182.	PARBHANI	PARBHANI MAHANAGARPALIKA	43569183
183.	PARBHANI	GANGAKHED NAGARPARISHAD	7108033
184.	PARBHANI	SONPETH NAGARPARISHAD	2230790
185.	PARBHANI	PURNA NAGARPARISHAD	4975197
186.	PARBHANI	MANWAT NAGARPARISHAD	4699949
187.	PARBHANI	SELU NAGARPARISHAD	6490301
188.	PARBHANI	JINTUR NAGARPARISHAD	6967220
189.	PARBHANI	PATRI NAGARPARISHAD	5017220
190.	PARBHANI	PALAM NAGARPANCHAYAT	2332101
191.	HINGOLI	HINGOLI NAGARPARISHAD	12765679
192.	HINGOLI	BASMATNAGAR NAGARPARISHAD	9727229

193.	HINGOLI	KALAMNURI NAGARPARISHAD	3755990
194.	HINGOLI	AVAHDA NAGNATH NAGARPANCHAYAT	2261667
195.	HINGOLI	SHENGAON NAGARPANCHAYAT	1347248
196.	JALNA	JALNA NAGARPARISHAD	41604919
197.	JALNA	AMBAD NAGARPARISHAD	4711834
198.	JALNA	BHOKARDAN NAGARPARISHAD	3385417
199.	JALNA	PARTUR NAGARPARISHAD	5216426
200.	JALNA	BADNAPUR NAGARPANCHAYAT	1955084
201.	JALNA	GHANSAWANGI NAGARPANCHAYAT	1991290
202.	JALNA	MANTHA NAGARPANCHAYAT	3378675
203.	JALNA	JAFRABAD NAGARPANCHAYAT	2474936
204.	NANDED	NANDED WAGHADA MAHANAGARPALIKA	76312517
205.	NANDED	BILOLI NAGARPARISHAD	2774154
206.	NANDED	UMARI NAGARPARISHAD	1951686
207.	NANDED	MUDKHED NAGARPARISHAD	3875749
208.	NANDED	KANDHAR NAGARPARISHAD	3774876
209.	NANDED	HADGAON NAGARPARISHAD	3791225
210.	NANDED	DHARMABAD NAGARPARISHAD	5037031
211.	NANDED	DEGLUR NAGARPARISHAD	7619489
212.	NANDED	KUNDALWADI NAGARPARISHAD	2034602
213.	NANDED	MUKHED NAGARPARISHAD	5013590
214.	NANDED	KINWAT NAGARPARISHAD	4364999
215.	NANDED	LOHA NAGARPARISHAD	4299331
216.	NANDED	BHUKAR NAGARPARISHAD	5203005
217.	NANDED	MAHUR NAGARPANCHAYAT	2246299
218.	NANDED	ARDHAPUR NAGARPANCHAYAT	4432644
219.	NANDED	HIMAYATNAGAR NAGARPANCHAYAT	4071829
220.	NANDED	NAYEGAON NAGARPANCHAYAT	3030981
221.	LATUR	LATUR MAHANAGARPALIKA	52329451
222.	LATUR	UDGIR NAGARPARISHAD	14155046
223.	LATUR	AHMADPUR NAGARPARISHAD	6619514
224.	LATUR	NILANGA NAGARPARISHAD	5524751
225.	LATUR	AUSA NAGARPARISHAD	5077526

226.	LATUR	CHAKUR NAGARPANCHAYAT	3584922
227.	LATUR	JALKOT NAGARPANCHAYAT	2045297
228.	LATUR	DEVANI NAGARPANCHAYAT	3173000
229.	LATUR	SHERULANANTPALNAGARPANCHAYA	2850103
230.	LATUR	RENAPUR NAGARPANCHAYAT	4508392
231.	USMANABAD	USMANABAD NAGARPARISHAD	18720132
232.	USMANABAD	TULJAPUR NAGARPANCHAYAT	4737413
233.	USMANABAD	UMRGA NAGARPANCHAYAT	4898621
234.	USMANABAD	BHUM NAGARPANCHAYAT	4495108
235.	USMANABAD	PARANDA NAGARPANCHAYAT	2699853
236.	USMANABAD	MURUM NAGARPANCHAYAT	2610646
237.	USMANABAD	NALDURG NAGARPANCHAYAT	2922602
238.	USMANABAD	KALAMB NAGARPANCHAYAT	3583728
239.	USMANABAD	LOHARA NAGARPANCHAYAT	1853577
240.	USMANABAD	WASHI NAGARPANCHAYAT	4842188
241.	BEED	BEED NAGARPARISHAD	20057621
242.	BEED	AMBEJOGAI NAGARPARISHAD	10348287
243.	BEED	PARADI VAIJNATH NAGARPARISHAD	12542224
244.	BEED	MAJANGAON NAGARPARISHAD	6836764
245.	BEED	GEVRAI NAGARPARISHAD	4682494
246.	BEED	DHARUD NAGARPARISHAD	2939426
247.	BEED	KEJ NAGARPANCHAYAT	5743885
248.	BEED	WADOVANI NAGARPANCHAYAT	2575928
249.	BEED	AASHTI NAGARPANCHAYAT	3637274
250.	BEED	PATODA NAGARPANCHYAT	4704779
251.	BEED	SHIRUR KASAR NAGARPANCHYAT	1035149
252.	BULDHANA	BULDHANA MUNICIPAL COUNCIL	9495839
253.	BULDHANA	KHAMGAON MUNICIPAL COUNCIL	13191847
254.	BULDHANA	MALKAPUR MUNICIPAL COUNCIL	3911750
255.	BULDHANA	SHEGAON MUNICIPAL COUNCIL	8254312
256.	BULDHANA	JALGAON JAMOD MUNICIPAL COUNCIL	3934337
257.	BULDHANA	MHEKAR MUNICIPAL COUNCIL	6340382
258.	BULDHANA	NANDURA MUNICIPAL COUNCIL	6643027

259.	BULDHANA	CHIKHALI MUNICIPAL COUNCIL	8095439
260.	BULDHANA	DEULGAON RAJA MUNICIPAL COUNCIL	4453840
261.	BULDHANA	LONAR MUNICIPAL COUNCIL	3175432
262.	BULDHANA	SINDKHEDRAJA MUNICIPAL COUNCIL	3754856
263.	BULDHANA	MOUTALA NAGARPANCHYAT	1796314
264.	BULDHANA	SANGRAMPUR NAGARPANCHYAT	1160822
265.	**AMRAVATI**	**AMRAVATI MUNICIPAL CORPORATION**	**91791284**
266.	AMRAVATI	ACHALPUR MUNICIPAL COUNCIL	15753481
267.	AMRAVATI	ANJANGOAN SURJI MUNICIPAL COUNCIL	7714136
268.	AMRAVATI	VARUD MUNICIPAL COUNCIL	7656546
269.	AMRAVATI	MORSHI MUNICIPAL COUNCIL	7509462
270.	AMRAVATI	DARYAPUR NAGARPARISHAD	5066442
271.	AMRAVATI	CHANDUR RAILWAY MUNICIPAL COUNCIL	2959348
272.	AMRAVATI	CHANDUR BAZAR MUNICIPAL COUNCIL	2600654
273.	AMRAVATI	DHAMANGAON MUNICIPAL COUNCIL	2959296
274.	AMRAVATI	SHENDURJANA MUNICIPAL COUNCIL	3680042
275.	AMRAVATI	CHIKALDHARA MUNICIPAL COUNCIL	847873
276.	AMRAVATI	TIVSA MUNICIPAL COUNCIL	4376179
277.	AMRAVATI	DHARNI NAGARPANCHYAT	2465161
278.	AMRAVATI	BHATKULI NAGARPANCHYAT	2278485
279.	AMRAVATI	NANDGOAN KHANDESHWAR	3154412
280.	YAVTMAAL	YAVTMAAL NAGARPARISHAD	36671369
281.	YAVTMAAL	DHARVA NAGARPARISHAD	3553157
282.	YAVTMAAL	GHATANJI NAGARPARISHAD	3289554
283.	YAVTMAAL	DIGRAS NAGARPARISHAD	6465357
284.	YAVTMAAL	PUSAD NAGARPARISHAD	10123214
285.	YAVTMAAL	UMARKHED NAGARPARISHAD	7527735
286.	YAVTMAAL	PANDHARKAWDA NAGARPARISHAD	4338470
287.	YAVTMAAL	WANI NAGARPARISHAD	8266765
288.	YAVTMAAL	NER NAWABPUR NAGARPARISHAD	4908073
289.	YAVTMAAL	AARNI NAGARPARISHAD	5296938
290.	YAVTMAAL	MAREGAON NAGARPANCHAYAT	1543019
291.	YAVTMAAL	MAHAGAON NAGARPANCHAYAT	1432836

292.	YAVTMAAL	KALAMB NAGARPANCHAYAT	3380756
293.	YAVTMAAL	JARIJAMNI NAGARPANCHAYAT	589938
294.	YAVTMAAL	RALEGAON NAGARPANCHAYAT	2814243
295.	YAVTMAAL	BABULGAON NAGARPANCHAYAT	973642
296.	YAVTMAAL	DHANKI NAGARPANCHAYAT	3076924
297.	WASHIM	KARANJA NAGARPARISHAD	9663890
298.	WASHIM	MANGRULPIR NAGARPARISHAD	4336773
299.	WASHIM	RISOD NAGARPARISHAD	5155080
300.	WASHIM	WASHIM NAGARPARISHAD	12412966
301.	WASHIM	MALEGAON NAGARPANCHAYAT	3445190
302.	WASHIM	MANORA NAGARPANCHAYAT	1623775
303.	AKOLA	AKOLA MAHANAGARPALIKA	58192140
304.	AKOLA	TELHARA NAGARPARISHAD	2856787
305.	AKOLA	AKOT NAGARPARISHAD	13021149
306.	AKOLA	BALAPUR NAGARPARISHAD	6211742
307.	AKOLA	PATUR NAGARPARISHAD	3040008
308.	AKOLA	MURTIZAPUR NAGARPARISHAD	5635060
309.	AKOLA	BARSHI TAKALI NAGARPANCHAYAT	3954473
310.	NAGPUR	KAMTHI NAGARPARISHAD	11841274
311.	NAGPUR	UMRED NAGARPARISHAD	7560618
312.	NAGPUR	RAMTEK NAGARPARISHAD	3139297
313.	NAGPUR	KHAPA NAGARPARISHAD	2092584
314.	NAGPUR	KALEMSHWAR NAGARPARISHAD	3207092
315.	NAGPUR	MOWAD NAGARPARISHAD	1440636
316.	NAGPUR	SAWNER NAGARPARISHAD	4497533
317.	NAGPUR	KATOL NAGARPARISHAD	6591710
318.	NAGPUR	NARKHED NAGARPARISHAD	2996600
319.	NAGPUR	MOHOPAL NAGARPARISHAD	999246
320.	NAGPUR	KHANAL NAGARPARISHAD	3965885
321.	NAGPUR	MOUDA NAGARPANCHAYAT	2017457
322.	NAGPUR	MAHADULA NAGARPANCHAYAT	3025444
323.	NAGPUR	KUHI NAGARPANACHAYAT	1721272
324.	NAGPUR	HINGNA NAGARPANACHAYAT	1321972

325.	NAGPUR	BHIVAPUR NAGARPANACHAYAT	1845551
326.	NAGPUR	WANADONGRI NAGARPARISHAD	5638452
327.	NAGPUR	PARSHIVANI NAGARPANCHAYAT	2131850
328.	NAGPUR	BUTTIBORI NAGARPARISHAD	4803040
329.	NAGPUR	KAMTHI KATAKMANDAL	2266474
330.	BHANDARA	BHANDARA NAGARPARISHAD	13012388
331.	BHANDARA	TUMSAR NAGARPARISHAD	6323428
332.	BHANDARA	PAVANI NAGARPARISHAD	3403178
333.	BHANDARA	LAKHANDUR NAGARPANCHAYAT	1801261
334.	BHANDARA	MOHADI NAGARPANCHAYAT	1757368
335.	BHANDARA	SAKOLI NAGARPANCHAYAT	3890778
336.	BHANDARA	LAKHANI NAGARPANCHAYAT	2038697
337.	GONDIYA	GONDIYA NAGARPARISHAD	18572546
338.	GONDIYA	TIRODA NAGARPARISHAD	3998280
339.	GONDIYA	AAMGAON NAGARPARISHAD	5480146
340.	GONDIYA	DEVARI NAGARPARISHAD	2509271
341.	GONDIYA	SALKASA NAGARPARISHAD	2072943
342.	GONDIYA	SADAK ARJUNI NAGARPARISHAD	938993
343.	GONDIYA	GOREGAON NAGARPARISHAD	1561955
344.	GONDIYA	ARJUNI NAGARPARISHAD	1467623
345.	WARDHA	WARDHA NAGARPARISHAD	14780520
346.	WARDHA	ARVI NAGARPARISHAD	6025018
347.	WARDHA	HINGANGHAT NAGARPARISHAD	14192912
348.	WARDHA	PULGAON NAGARPARISHAD	4667575
349.	WARDHA	DEVALI NAGARPARISHAD	2649517
350.	WARDHA	SINDHI NAGARPARISHAD	2005203
351.	WARDHA	SHELU NAGARPANCHAYAT	1883717
352.	WARDHA	SAMURDRAPUR NAGARPANCHAYAT	1055598
353.	WARDHA	AASHTI NAGARPANCHAYAT	1591530
354.	WARDHA	KARANAJA NAGARPANCHAYAT	1785565
355.	CHANDRAPUR	CHANDRAPUR MAHANAGARPALIKA	45297004
356.	CHANDRAPUR	BHALLARPUR NAGARPARISHAD	12677607
357.	CHANDRAPUR	WARORA NAGARPARISHAD	6907686

358.	CHANDRAPUR	BHADRAVATI NAGARPARISHAD	9545698
359.	CHANDRAPUR	MUL NAGARPARISHAD	4328418
360.	CHANDRAPUR	BHRAMHPURI NAGARPARISHAD	5702863
361.	CHANDRAPUR	RAJURA NAGARPARISHAD	4105145
362.	CHANDRAPUR	GADCHANDUR NAGARPARISHAD	4267482
363.	CHANDRAPUR	CHIMUR NAGARPARISHAD	5513441
364.	CHANDRAPUR	NAGBHID NAGARPARISHAD	5498133
365.	CHANDRAPUR	JIVATI NAGARPANCHAYAT	971817
366.	CHANDRAPUR	SAWALI NAGARPANCHAYAT	1941043
367.	CHANDRAPUR	KORPANA NAGARPANCHAYAT	716602
368.	CHANDRAPUR	GONDPIPARI NAGARPANCHAYAT	1142161
369.	CHANDRAPUR	PROMBHURNA NAGARPANCHAYAT	1408103
370.	CHANDRAPUR	SHINDEWAHI NAGARPANCHAYAT	2261663
371.	GADCHIROLI	GADCHIROLI NAGARPARISHAD	8429300
372.	GADCHIROLI	DESAI GANJ NAGARPANCHAYAT	4914646
373.	GADCHIROLI	ARMORI NAGARPANCHAYAT	4964680
374.	GADCHIROLI	KHORCHI NAGARPANCHAYAT	666765
375.	GADCHIROLI	BHAMBARAGAD NAGARPANCHAYAT	2983721
376.	GADCHIROLI	DHANORA NAGARPANCHAYAT	1481452
377.	GADCHIROLI	SHIRONCHA NAGARPANCHAYAT	1844316
378.	GADCHIROLI	KURKHEDA NAGARPANCHAYAT	1192190
379.	GADCHIROLI	AHERI NAGARPANCHAYAT	2984535
380.	GADCHIROLI	YETAKALLI NAGARPANCHAYAT	2764682
381.	GADCHIROLI	CHAMORSHI NAGARPANCHAYAT	3564598
382	GADCHIROLI	MURCHEHRA NAGARPANCHAYAT	419978
TOTAL			**305,00,00,000/-**

(Sharad Gyanoba Kirwale)
Desk Officer Government Maharastra

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ANNEXURE A-27

No. AMC/CE/733/2021

Date : 01/01/2021

To,

Law Officer,

Amravati Municipal Corporation

Subject : CA.No. 4020/2020 Amravati Municipal Corpration
V/s Ganesh Dadrao Anasane

Reference : Your letter Dated Dt. 28/12/2020

With reference to the subject sited above, it was instructed to submit information regarding availability of funds and further planning proposal for commissioning of biomining project as per revised DPR submitted to State Government vide above reference.

Accordingly it is to inform that, Hon.Commissioner has approved to utilize required funds from 15th Finance Commission and Municipal Fund, for bioremediation and biomining of legacy waste as per revised DPR.

Submited for further needful.

Enclosue : Revised DPR.

C.E.
City Engineer,
Amravati Muncipal Corporation
Ravindra M. Pawar
City Engineer
AMC

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ANNEXURE A-28

MAHARSHTRA JIVAN PRADHIKARAN

TECHNICAL APPROVAL ORDER

Issue of Technical Approval No. 13 Form No.85 for month of February 2021

Subject: For granting Technical Approval to detail project report in respect of bio-mining of remaining waste at Sukali Compost Depot for solid waste management.

Reference:

1) Letter dated 20/11/2018 OW.N0.MA/MJP/AM/RCS/TM/2606 of this office.

2) Letter of Commissioner, Amravati Municipal Corporation bearing OW.N0./AMC/BV/SA/614 dated 24.11.2020.

As per reference letter No. 1 Revised Technical Approval has already granted to project report of solid waste management for Amravati Municipal Corporation area under Clean Maharashtra Mission (Urban). Under this proposal work of Bio-mining on dumped solid waste at Sukali Compost Depot is incorporated. But it is observed that in Technical Approval as per reference letter No. 1 there is a major difference between approved DPR and actual dumped waste.

As per Technical Approval vide reference letter No. 1, it is propose to use same land for construction of structure required to process solid waste by bio-mining of solid waste. To assess the actual percentage of solid waste at Sukali Compost Depot a survey was conducted in the month of October 2020. Accordingly a revise proposal is made in respect of excess solid waste. Said proposal is submitted by the Amravati Municipal Corporation for technical approval as per reference letter No. 2 to this office.

Technical Approval to said proposal amounting to Rs. 15,33,21,000/- is granted in view of Issue of Technical Approval No. 13 Form No.85 for month of February 2021 subject to following terms and conditions:

TERMS AND CONDITIONS

1) Funds required for said proposal will be allocated by the Urban Development Department of Government of Maharashtra under Clean Maharashtra Mission (Urban). Therefore it is mandatory to follow instructions and guidelines given by the government time to time.

2) Though Technical Approval is granted by MJP, but MJP will not be responsible for any issue in respect of requirement of funds and quality of actual work.

3) It will be mandatory to follow instructions and guidelines given by the government after getting administrative approval.

4) Amravati Municipal Corporation is under obligation dispose all the End product (Compost and RDF) out of said project.

5) Amravati Municipal Corporation is under obligation to pay bills as per quantity mentioned in Budget and should pay such bills after verifying the actual quantity with quantity mentioned in Budget.

6) Said proposal was inspected under presumption that said information provided by the technical adviser and Amravati Municipal Corporation is true and correct but if find any discrepancy it will be the responsibility of Amravati Municipal Corporation to correct the same and take approval from competent officer.

7) Amravati Municipal Corporation is under obligation to take technical consent from NIRI, Nagpur for Technology and process propose under said project.

8) Budget is prepared according to approved rates as per letter dated 09/07/2018 N0.SECPDM/SWM/383 Member Secretary, Maharashtra Jivan Pradhikaran, Mumbai and measures of work is to be taken as per

standards of public works department. Proposed Quantity for Bio-mining in Budget is as per the survey conducted in the month of October 2020.

Enclosure: - Abstract of Technical Approval

(Manisha Palande)
Chief Engineer
OW.N0.MA/MJP/AM/RCS/319/2021
Dated 18/2/2021

Copy to:

1. Mission Director, Clean Maharashtra Mission Mumbai.
2. Commissioner, Amravati Municipal Corporation.
3. Superintendent Engineer, M.J.P. Mumbai.
4. Superintendent Engineer, M.J.P. Circle Amravati.
5. Executive Engineer, M.J.P. Division, Amravati.

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AMRAVATI MUNICIPAL CORPORATION, AMRAVATI

OW.N0./AMC/SA/BV/80/2021 Date: 27/04/2021.

Request Letter No.5

To,

Principle Secretary

Urban Development Department-(2),

Government of Maharashtra

4th Floor, Mantralaya, Nariman Point, Mumbai.

Subject: For approval of detail project report in respect of additional fund required for bio-mining of remaining waste at Sukali Compost Depot for solid waste management.

Reference:

1) Letter dtd. 07/06/2017 of Maharashtra Urban Development mission directorate, Clean Maharashtra Mission (Urban) RAS/Solid Waste/708/ 2017-18.

2) Government approval dtd. 16/11/2018 for detail project respect in respect of solid waste management of Amravati Municipal Corporation under clean India Mission.

3) Revised technical sanction of detail project report dtd. 20/11/2018 of Maharashtra Jivan Pradhikaran Amravati Division.

4) Matter pending before National Green Tribunal 60/2019.

5) M/S. Mars Planning and Engineering services Ahmadabad letter dtd. 08/03/2020**.**

6) Earlier letter to you no. 112/2020, dtd. 09/07/2020.

7) Earlier letter to you no. 420/2020, dtd. 25/09/2020.

8) Earlier letter to you no. 612/2020, dtd. 24/11/2020

9) General body of Amravati Municipal Corporation has already given its approval for revise proposal on dtd. 18/12/2020.

10) Order of technical approval for revise proposal dated 18/2/2021, OW.N0.MA/MJP/AM/RCS/319/2021 of Maharshtra Jivan Pradhikaran Amravati.

11) Earlier letter to you no. 877/21, dtd. 22/02/2021

Respected Sir,

Maharashtra Government has already approved detailed project report of solid waste management of Amravati Municipal Corporation submitted through M/S Mars planning & Engineering Services, Ahmadabad under clean India movement as per reference No.2. According to said report which includes establishment of project in three location within city, work related to internal development, establishment of SLP, IEC and bio-mining of 1,31,946/- Cubic meter waste.

That bio-mining work is already completed as per detailed project report. That during the execution of the said work, to assess the actual percentage of old and new waste at Sukali Compost Depot a survey was conducted on dtd. 12/10/2020 and as per said survey total waste which includes old and new waste of 5,00,000 cubic meter on 7 Hectre 99 R land. The waste which is collected daily from the Amravati City is also dumped at Sukali and hence it is increase day by day.

That as per original DPR approved by the government, which mentioned that, 1,31,946 cubic meter waste is dumped but there is a major difference between approved DPR and actual dumped waste.

That in the approved DPR desegregation plant by scientific method of the solid waste and development of sanitary land filled sight is proposed. Land of 3.5 Hector is for desegregation land and to develop SLP 5.0 land in proposed in DPR. That as per Ms. Mars Planning and Engineering Services Ahmadabad vide their letter dtd. 08/03/2020 waste of 1,31,946 cubic meter is dumped at 3.07 hector land. Hence only 3.07 hector land will remain after bio-mining work on which desegregation plant is proposed. The work of development of SLF is yet to be commenced as no land is vacant at present.

As per approved DPR by Maharshtra Jivan Pradhikaran rates of bio-mining is fixed for Rs. 420/- per cubic meter and total cost of project is Rs. 5,54,16,732/-. As per survey report of Total Station, waste amount to 5,00,000 cubic meter is present at the spot but as per approved DPR quantity of 1,31,946 cubic meter is mentioned. For remaining waste of 3,65,050 cubic meter Rs. 15,33,21,000/- is required as per quoted rate of 420/- for bio-mining by MJP.

Amravati Municipal Corporation has already submitted the detailed report to Hon'ble National Green Tribunal in respect of execution and process of bio-mining work and SLF work completion as per reference No. 4.

Accordingly Rs. 15.33 corer is required for vacating the land after bio-mining process on legacy waste to proceed as per the time line as per detailed report.

Accordingly new revise DPR in respect of difference in original DPR and actual dumped waste at Sukali Compost Depot, is approved by General body of Amravati Municipal Corporation vide Resolution No.85 on dtd. 18/12/2020 after getting technical approval for revise proposal from Maharshtra Jivan Pradhikaran as per reference No. 10.

Hence sanction be granted to revised DPR for bio-mining of remaining waste as per reference No.6 and kindly make available the said fund.

For your information.

Humbly yours

_____

Commissioner

Municipal Corporation, Amravati.

Copy to:

1. Mission Director, Clean Maharashtra Mission Mumbai.
2. Chief Engineer, Maharashtra Jivan Pradhikaran, Amravati.
3. Divisional officer, Maharashtra pollution control board Amravati.

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Amravati Municipal Corporation, Amravati

No-AMC/CE/SWMTEN/ 51 /2021
Date: 12/03/2021

E-TENDER NOTICE

REQUEST FOR PROPOSAL FOR Selection of Contractor for the Work of "Scientific Dumpsite Land Reclamation through Bio - mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati."

Amravati Municipal Corporation (AMC) is committed to improve its Solid Waste Management Functions towards compliance of MSW Rules 2000 & 2016 as well as Swachahha Bharat Abhiyan.

To implement the above program, AMC invites E-tenders. The tender documents can be downloaded from the website (http://www.mahatenders.gov.in.) Only those contractors/ bidders, interested in bidding, shall pay the tender document cost online.

Event	Date	Time	Web-Link/Venue
Start of Bid Download	12/03/2021	16.00 pm	www.mahatender.gov.in
Pre bid meeting	31 /03/2021	11.00 am	The Commissioner, Amravati Municipal Corporation, Rajkamal Chowk Amravati, 444601 Dist.- Amravati, Maharashtra
End Date of Online and Physical Bid Submission	08 /04/2021	16.00 pm	Online Submission (Technical and Financial Bid): www.mahatender.gov.in Physical Submission (Technical Bid Only): Commissioner, Amravati Municipal Corporation, Amravati, Dist.- Amravati, Maharashtra
Technical Bid Opening	09 /04/2021	11.00 am	Amravati Municipal Corporation, Amravati
Financial Bid Opening	As per approval of TSC		Amravati Municipal Corporation

Note: All eligible/ interested contractors are mandated to get enrolled on the e-Procurement portal (http://www.mahatenders.gov.in.) and the tender can be downloading through -portal (http://www.mahatenders.gov.in.) in order to download the tender documents and participate in the subsequent bidding process.

Commissioner, Amravati Municipal Corporation, Amravati reserves the right to accept or reject all the tenders without assigning any reason.

15/3/2021

Commissioner
Amravati Municipal Corporation

अमरावती महानगरपालिका AMC अमरावती

Maharashtra Tenders

eProcurement System Government of Maharashtra

Tender Details

Date : 12-Mar-2021 04:35 PM

Print

Basic Details

Organisation Chain	Amravati Municipal Corporation||Office of City Engineer		
Tender Reference Number	AMC/PWD/CE/NIT/SWM ten/51/2021 dt.12.03.2021		
Tender ID	2021_AMC_662404_1		
Tender Type	Open Tender	**Form of contract**	Percentage
Tender Category	Works	**No. of Covers**	2
General Technical Evaluation Allowed	No	**ItemWise Technical Evaluation Allowed**	No
Payment Mode	Online	**Is Multi Currency Allowed For BOQ**	No
Is Multi Currency Allowed For Fee	No	**Allow Two Stage Bidding**	No

Payment Instruments

	S.No	Bank Name
Online Bankers	1	SBI Bank

Cover Details, No. Of Covers - 2

Cover No	Cover	Document Type	Description
1	Fee/PreQual /Technical	.pdf	All Technical Documents
2	Finance	.xls	BOQ

Tender Fee Details, [Total Fee in ₹ * - 5,900]

Tender Fee in ₹	5,900		
Fee Payable To	Nil	**Fee Payable At**	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details

EMD Amount in ₹	15,34,000	**EMD through BG/ST or EMD Exemption Allowed**	No
EMD Fee Type	fixed	**EMD Percentage**	NA
EMD Payable To	Nil	**EMD Payable At**	Nil

Work /Item(s)

Title	Scientific dumpsite land reclamation through BIO mining resources recovery and scientific rejects disposal at sukali compost depot Amravati, Maharashtra				
Work Description	Scientific dumpsite land reclamation through BIO mining resources recovery and scientific rejects disposal at sukali compost depot Amravati, Maharashtra				
Pre Qualification Details	Please refer Tender documents.				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	No				
Tender Value in ₹	15,33,21,000	**Product Category**	Solid Waste Management	**Sub category**	NA
Contract Type	Tender	**Bid Validity(Days)**	180	**Period Of Work(Days)**	365
Location	Amravati	**Pincode**	444601	**Pre Bid Meeting Place**	Conference

Scanned with CamScanner

Critical Dates

Publish Date	12-Mar-2021 05:00 PM	**Bid Opening Date**	09-Apr-2021 04:00 PM
Document Download / Sale Start Date	12-Mar-2021 05:00 PM	**Document Download / Sale End Date**	08-Apr-2021 04:00 PM
Clarification Start Date	NA	**Clarification End Date**	NA
Bid Submission Start Date	12-Mar-2021 05:00 PM	**Bid Submission End Date**	08-Apr-2021 04:00 PM

Tender Documents

NIT Document

S.No	Document Name	Description	Document Size (in KB)
1	Tendernotice_1.pdf	NIT	355.55

Work Item Documents

S.No	Document Type	Document Name	Description	Document Size (in KB)
1	Tender Documents	ScheduleB.pdf	ScheduleB	2213.93
2	BOQ	BOQ_1145030.xls	BOQ	277.50

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	omajay2007@rediffmail.com	Ajay Jadhao	DR AJAY DEVIDASRAI JADHAV
2.	suhasde111@gmail.com	Suhas Chavan	SUHAS NANDKISHOR CHAVHAN
3.	pawardeputy@gmail.com	Ravindra Pawar	PAWAR RAVINDRA MADHUKARRAO

Tender Inviting Authority

Name	DYMC
Address	AMC

Tender Creator Details

Created By	Ravindra Pawar
Designation	Deputy Engineer
Created Date	12-Mar-2021 04:28 PM

Dmunpal

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ANNEXURE A-31

REQUEST FOR PROPOSAL

FOR

Selection of Contractor

For

The Work of "Scientific Dumpsite Land Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati."

Under

Amravati Municipal Corporation, Amravati (Maharashtra).

VOLUME I: Request for Proposal (RFP) Document

DISCLAIMER

The information contained in this Request for Proposal (RFP) has been prepared solely to assist prospective Bidders in making their decision of whether or not to submit a bid. The Amravati Municipal Corporation (here in after referred to as "the Authority" in this Bid Document) does not purport this information to be all-inclusive or to contain all the information that a prospective Bidder may need to consider in order to submit a proposal. The designs, drawings, technical data and any other information provided in this RFP is only indicative and neither the Authority nor its employees, officers nor its consultants will make or will be deemed to have made any current or future representation, promise or warranty, express or implied as to the accuracy, reliability or completeness of the information contained herein or in any document or information, whether written or oral, made available to a Bidder, whether or not the aforesaid parties know or should have known of any errors or omissions or were responsible for its inclusion in or omission from this RFP.

Neither the Authority or its employees or consultants make any claim or give any assurance as to the accuracy or completeness of the information provided in this RFP Document. Interested parties are advised to carry out their own investigations and analysis of any information contained or referred to herein or made available at any stage in the bidding process in relation to the Project.

This RFP Document is provided for information purposes only and upon the express understanding that such parties will use it only for the purpose set forth above. It does not purport to be all-inclusive or contain all the information about the Projects in relation to which it is being issued.

The information and statements made in this RFP document have been made in good faith. Interested parties should rely on their own judgments in participating in the said Project. Any liability is accordingly expressly disclaimed even if any loss or damage is caused by any act or omission on part of the aforesaid, whether negligent or otherwise.

This RFP Document has not been filed, registered or approved in any jurisdiction. Recipients of this document should inform themselves of and observe any applicable legal requirements.

The Authority makes no representation or warranty and shall in unreliability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the RFP document.

The Authority reserves the right to modify, suspend, change or supplement his RFP. Any change to the RFP will be notified to all the Bidders to whom the RFP is issued. No part of this RFP and no part of any subsequent correspondence by the Authority, its employees, officers or its consultants shall be taken neither as providing legal, financial or other advice nor as establishing a contractor contractual obligation. Contractual obligations would arise only if and when definitive agreements have been approved and executed by the appropriate parties having the authority to enter into and approve such agreements. The Authority reserves the right to reject all or any of the Bids submitted in response to this RFP at any stage without assigning any reasons whatsoever.

Bidders are responsible for all costs incurred by them when evaluating and responding to this document and any negotiation costs incurred by the recipient there after. The Authority may in its sole discretion proceed in the manner it deems appropriate which may include deviation from its expected evaluation process, the waiver of any requirements, and the request for additional information. Unsuccessful Bidders will have no claim whatsoever against the Authority nor its employees, officers nor its consultants.

I. Key Dates

Event	Date	Time	Web-Link/Venue
Start of Bid Download	12/03/2021	16.00 pm	www.mahatender.gov.in
Pre-Bid Meeting	31/03/2021	11.00 am	At. Commissioner's Office, Amravati Municipal Corporation, Amravati
End Date of Online and Physical Bid Submission	08/04/2021	16.00 pm	Online Submission (Technical and Financial Bid): www.mahatender.gov.in Physical Submission (Technical Bid Only): Commissioner, Amravati Municipal Corporation, Amravati, Dist.- Amravati, Maharashtra
Technical Bid Opening	09/04/2021	16.00 pm	Amravati Municipal Corporation, Amravati
Financial Bid Opening	As per approval of TSC		Amravati Municipal Corporation

II. Bid Data Sheet

A.

Tender Notice Number	AMC/CE/SWM-TEN/ 51 /2021
Date of Issue	12/03/2021
Tender Inviting Authority	The Amravati Municipal Corporation
Web-link	www.mahatender.gov.in

B.

Particulars	**Data**
Cost of Project	INR 15,33,21,000/- (Including GST)
Cost of Bid Document	INR 5900 /- (including GST 18%)
EMD	3% of total project cost (1% Paid should online)
Bid Validity Period	180 Days from the due date of Bidding
Eligible Bidder for Bidding	Individual Bidder/ Consortium/Joint Venture (Maximum 2 Members in Consortium/Joint Venture)
Method of Bid Submission	Online Submission- Technical & Financial Bid Physical Submission: Technical Bid Only
Performance Security	5 % of Contract Value (as per GRs of Maharashtra State)

III. All the correspondence should be in written, the written correspondence may be sent through email, fax or letter. All the communication and the bid submission should be addressed to the undersigned on the address below:

To,

The Commissioner,
Amravati Municipal Corporation, Amravati (M.S)
Mob. No.: - 7030922874 – Dr. Seema Netam (MOH)
Mob.No.:- 7030922884 – Er. Ravindra Pawar (City Engineer)

E-mail:- amravaticorporation@yahoo.in; and amravaticorporation@gmail.com;

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1. Introduction

1.1. Background

The "Swachh Bharat Mission-Urban" (SBM-U) is a major initiative of Government of India with a vision of a 'Clean India' by 2020. To achieve the objectives of the Swachh Bharat Mission, Government of Maharashtra has launched "Swachh Maharashtra Mission" at the state level. Swachh Maharashtra Mission will be the nodal agency in urban areas for implementing the overall goals of SBM.

The Government of Maharashtra proposes to strengthen the entire MSWM system in all the Urban Local Bodies (ULBs) in Maharashtra so as to comply with the Solid Waste Management Rules 2016, Service Level Benchmarks of the Government of India (GoI) & achieve the objectives of Swachh Bharat Mission (SBM) by 2020.

1.2. Project Objective

To fulfill the objectives of the Swachh Maharashtra Mission, the Amravati Municipal Corporation, through this proposed project aims at reclamation of land from the existing dumpsite, Sukali Compost Depot, Amravati through the process of Bio-mining.

1.3. Current scenario

Sr. No.	Description	Details
1.	Population (Census 2011)	6,47,058
2.	Present Waste Generation (2020)	250 TPD estimated
3.	Dumpsite Site Location	Sukali Compost Depot.Amravati
4.	Mouja	Peth Amravati
5.	Survey number	155, 156
6.	Co-ordinates	Latitude: 20°56'1.04"N Longitude: 77°43'30.14"E
7.	Total Land Area	9.35 Ha
8.	Total Area of the Site on which legacy waste is to be clean by bio-mining process (Approximately)	6.55 HR

1.4. Current Tender

The Amravati Municipal Corporation (herein after referred to as "the Authority" in this Bid Document) is seeking proposals from eligible Bidders to undertake the works required for Scientific dumpsite reclamation through Bioremediation and Bio-mining of legacy waste/un-processed municipal solid waste by excavation of complete mixed MSW from the dumpsite formation of trenches, spreading of bio-culture, periodic rotation of hips formed. Resource recovery by using suitable mechanical sieving machine or any other suitable equipment/method, segregating, sorting, retrieving recoverable materials, storing, selling, diverting for recycling, making necessary provisions of recovered material such as plastics/RDF/biosolids/rejects/inert. Contractor shall executer the works as per the SWM Rules 2016 and CPCB Guidelines for Disposal of Legacy Waste (Old Municipal Solid Waste) Feb 2019 during contract period and hand back of reclaimed land and disposal facility to the Amravati Municipal Corporation at the end of contract period.

1.5. Objective of the Bid Document

This Bid Document is structured to provide prospective Bidders with sufficient information on which to prepare a Proposal and is organized in the following manner:

Volume I: Request for Proposal Document

- Introduction
- Instruction to Bidders
- Preparation of Bid
- Submission of Bid
- Bid Opening and Evaluation
- Scope of Project
- Payment Schedule
- Miscellaneous

Volume II: Draft Contract Agreement

Volume III: Conditions of Contract

2. Instruction to Bidder

2.1. Scope of Bid

2.1.1. The Authority invites bids for the execution of works (herein after referred to as "the works") detailed in this Bid Document.

2.1.2. The successful bidder will be expected to complete the works by the intended completion date specified the bid data sheet of this RFP document.

2.2. Eligible Bidder

2.2.1. A Bidder may be a natural person, private entity, government-owned entity or any combination of them with a formal intent to enter into an agreement or under an existing agreement to form a Consortium/Joint Venture. For an applicant/ bidder can submit the Bid either individually or form a consortium. In case the Bidder is a Consortium/Joint Venture, it shall, comply with the following additional requirements:

(i) The number of members (incorporated under The Companies Act, 2013) in a Consortium /Joint Venture would be limited to 2 (two) members only. The Members of the Consortium/Joint Venture shall nominate one member as the lead member (the "Lead Member"), the member other than the lead member shall be termed as the "the support partner". It is clarified that the lead member of the consortium would be regarded as being responsible for the due implementation of this Project who must have technical experience as mention in this RFP.

(ii) In case of consortium/ Joint Venture; Lead member should have minimum technical capacity criteria as mentioned clause 2.3.1 And minimum average annual turnover criteria of 51% to that mentioned under financial capacity under clause 2.3.2 of prequalification criteria respectively.

(iii) Combined Technical and financial capacity of all Consortium/Joint Venture members ("the Lead Member" and "the support partner") shall be considered towards qualifying and

evaluation criteria.,.

(iv) A consortium/Joint Venture shall have registered agreement wherein roles and responsibilities of Consortium members/joint venture parties clearly mentioned. The aforesaid mentioned agreement should be submitted along with the Bid document.

(v) The Consortium/Joint Venture members shall nominate a person as the Authorize signatory from the Lead Member of the Consortium/Joint Venture who shall be authorized to sign their bid submission, the contract agreement or any correspondence with the Authority. A power of Attorney in the name of Authorized Signatory has to be furnished by the Consortium/Joint Venture bidder along with their technical proposal which is authenticated by respective statuary authority.

2.3. Pre-Qualification Criteria

2.3.1. Technical Capacity

For demonstrating technical capacity ("the technical capacity"), the bidder has to comply with both of the following condition:

(i) Successfully handled similar works during last seven years prior to the last day of month previous to publication of this bid should be either of the following :

a. Three similar completed works costing not less than the amount equal to 40% of the estimated cost.

or

b. Two similar completed works costing not less than the amount equal to 50% of the estimated cost.

or

c. One similar completed work costing not less than the amount equal to 80% of the estimated cost.

(ii) Note: a. similar works means works regarding execution of scientific dumpsite /Reclamation/ Bio-mining of legacy waste.
b. Estimate project cost is Rs. 15, 33, 21,000/-
c. Projects/works such as plant machineries provided/supplied on rental basis to ULBs will not be considered under evaluation. Only those projects will be considered who has executed scope as of designed, built, operated bioremediation and bio-mining of legacy waste including scientific disposal of by products such as bio-solids, RDFs, Inserts etc.

Note:

- In case an eligible project for accessing "the technical capacity" has been jointly executed by the Bidder (as part of a consortium), then the entity claiming such eligibility should satisfy both of below conditions:
  (a) Have held minimum 51% share in the project for which the experience is being claimed the claiming entity shall produce proof of percentage shareholding in the project for which experience is being claimed.
  (b) The project shall be qualified as 'eligible project' for "the technical capacity only if the percentage shareholding in the project multiplied with the total project capacity is satisfying the criteria laid down in clause 2.3.1 above.
- The eligible projects claiming "the Technical Capacity" should have been executed for any Local Body/ any Government / Semi-Government Organizations / Public Sector Undertakings in India with direct contract with them.

2.3.2. Financial Capacity

For demonstrating the financial capacity ("the Financial Capacity"), the bidder has to comply with each of the following conditions:

(i) Minimum average turnover of INR 7.5 Cr. in the preceding three financial years (2017-18, 2018-19, 2019-20) from the due date of submission of this bid;

(ii) Shall have availability of Liquid assets and/or availability of credit facilities of no less than INR 5.00 Cr. at the time of submission of this bid. The bidder shall furnish Certificate for availability of Liquid asset dully certified from its statuary auditor.

(iii) Shall have positive net worth of minimum INR 1.53 Cr in the preceding three financial year (2017-18,2018-19,2019-20) from the due date of submission of this bid

Note:

- For the purpose of this RFP, turnover ("the turnover") shall mean the average of annual revenues from execution of the projects as listed in Clause 2.3.1 (i) during the preceding three financial years from the due date of submission of this bid. This shall not include capital grants/capital subsidies/donations/salaries/dividend/bonus/commission and interest income.
- For the purposes of this RFP, net worth (the "Net Worth") shall mean:
  (a) In case of Private Limited/ Limited Companies incorporated under the Companies 1956 (or the Companies Act 2013) (or equivalent Act in case of Foreign bidder) shall mean the sum of subscribed and paid up equity and all reserves created out of the profits and securities premium account after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off, as per the audited balance sheet, but does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation (as prescribed in the Companies Act2013).
  (b) In case of Partnership Firms means partners' capital plus reserve & surplus.

(c) In case of individuals means sum total of all assets less liabilities.

2.3.3. Other Pre-Qualification Criteria

(i) The bidder should be technically capable enough to ensure all environmental hazard mitigation measures and demonstrate expertise in EHS – Environment, health and safety aspects and impacts that need to be addressed at dumpsite while adopting the works. RFP document demonstrating their proposal to follow the measures for the Protection of Environment, Health and Safety while executing the Works.

2.4. Essential Pre-Qualification Documents

Bidder to enclose all of the following documents in support of his pre-qualification for bidding:

(i) Incorporation certificate of the company/Proof of Company registration document/MoA;
(ii) Copy of Agreement with the concerned client;

(iii) Certificate(s) (completion or Currently operating, as the case may be) from its concerned client(s) in support of "the technical capacity" clearly stating the capacity of project (or, quantity

(iv) Processed till date in case of currently running project) including performance of the firm for the work completed during the contract period of the project in respect of the projects whose experience is claimed.

- Performance certificate should be issued from the concerned client(s) (Certificate issued by the officer of rank below not below than Executive Engineer/ Project Manager or equivalent) shall only be considered.
- In case a particular work/ contract has been jointly executed by the Bidder (as part of a consortium/ Joint Venture), it should further support its claim for the share in work done forth at particular work/ contract by producing a certificate from its client.

(v) Audited balance sheet of preceding three financial years from the due date of submission of this bid and Certificate(s) from its Statutory Auditors in support of "the Financial Capacity"

- Certificate specifying the average Turnover of the Bidder (Individual bidder/Lead Member of Consortium/Joint Venture) in preceding three financial years from the due date of submission of this bid, and also specifying the methodology adopted for calculating such Turnover conforming to the provisions of this Clause.

(vi) GSTIN number;

2.5. One bid per Bidder

A Bidder is eligible to submit only one Bid for the Project in entire bidding process either individually or as a member of any one Consortium. Applicant/Bidder shall not be entitled to submit another bid either individually or as a member of any other Consortium, as the case may be.

2.6. Cost of Bidding

The Bidders shall be responsible for all the costs associated with the preparation of their Bids and their participation in the Bidding Process. The Authority will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Bidding Process.

2.7. Site Visit and verification of Information

2.7.1. Prior to submitting the Proposal, the Bidders are advised to visit and examine the project site and its surroundings, obtain and ascertain for themselves all technical data, and other information necessary for preparing their Proposal (bid) including carrying out necessary technical surveys, total station survey for quantity estimation, field investigations, assets condition assessment etc. at its own cost and risk. Bidders are encouraged to submit their respective Bids after visiting the Project site/area to ascertain the ground situation, coverage, quality of assets or any other matter considered relevant by them. The Bidders shall be deemed to have full knowledge of the site conditions, whether physically inspected or not, if Bidder submits a Proposal for this project.

2.7.2. For the above purpose, the Bidders may approach the Authority for assistance during any site visit. The Bidders shall be responsible for all arrangements and shall release and indemnify the Authority and/or any of its agencies/consultants/advisors from and against all liability in respect hereof and shall be solely responsible for any personal injury, loss of or damage to property or any other loss, damage, costs or expenses, however caused, which, but for the exercise of such permission, would not have arisen due to this RFP.

2.7.3. It shall be deemed that by submitting a Bid, the Bidder has:

(i) Made a complete and careful examination of the Bidding Documents;

(ii) Received all relevant information;

(iii) Acknowledged and accepted the risk of inadequacy, error or mistake in the information provided in the Bidding Documents or furnished by the Authority and shall not be a basis for any claim for compensation, damages, extension of time of performance of its obligations, loss of profit etc. from the Authority, or a ground for termination of the Contract Agreement;

(iv) satisfied itself about all matters, things and information necessary and required for submitting an informed Bid, execution of the Project in accordance with the Bidding Documents and performance of all of its obligations there under;

2.8. Pre-Bid Meeting

2.8.1. The bidders or their official representative are invited to attend a pre-bid meeting. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage. The date, time and address of the Pre-bid meeting shall be as specified in the bid data sheet.

2.8.2. Bidders requiring any clarification on the bidding documents or questions on any matter that may be raised at that stage, may send their queries in written, addressed to contact person as mentioned in the Bid Data Sheet, latest by one day before the pre-bid meeting date mentioned in the bid data sheet. The responses of the Authority will be uploaded only on the Website **www.mahatender.gov.in** and shall not be communicated separately to the bidders.

2.8.3. The Authority shall endeavor to respond to the questions raised or clarifications sought by the Bidders. However, the Authority reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring the Authority to respond to any question or to provide any clarification which will have material adverse effect on the bidding outcome.

2.8.4. The Authority (AMC) may also on its own motion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by the Authority shall be deemed to be part of the Bidding Documents. Verbal clarifications and information given by Authority or its employees or representatives shall not in any way or manner be binding on the Authority.

2.9. Amendment in the Bidding Document

2.9.1. At any time prior to the deadline for submission of proposals, the Authority may amend the RFP documents, including any contractual document, by issuing an Addendum.

2.9.2. Any Addendum thus issued shall be part of the RFP documents and shall be published on the website **www.mahatender.gov.in**. The Authority bears no obligation for any bidder not receiving the information of the addendum issued to this RFP for any reason whatsoever.

2.10. Conflict of Interest

2.10.1. A Bidder shall not have the conflict of interest (the "Conflict of Interest") that affects the Bidding Process. Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the AUTHORITY (AMC) shall forfeit and appropriate the Bid Security or Performance Security, as the case may be. Without limiting the generality of the above, a Bidder shall be considered to have a 'conflict of interest' that affects the 'Bidding Process', if:

(i) Such Bidder (or any constituent thereof) and any other Bidder (or any constituent thereof) have common controlling share holders or other ownership interest;
Or;

(ii) A constituent of such Bidder is also a constituent of another Bidder;
Or;

(iii) Such Bidder receives or has received any direct or indirect subsidy from any other Bidder, or has provided any such subsidy to any other Bidder;
Or;

(iv) Such Bidder has the same legal representative for purposes of this Bid as any other Bidder;
Or;

(v) Such Bidder has a relationship with another Bidder, directly or through common third parties, that puts them in a position to have access to each other's information about, or to influence the Bid of either or each of the other Bidder.

2.10.2. A Bidder shall be liable for disqualification and forfeiture of Bid Security or Performance Security and termination of contract as the case may be, if a conflict of interest on part of Bidder is discovered by the Authority during the Bidding Process or subsequent to the (i) during the bidding process, or (ii) issue of letter of award (LoA) or (iii) execution of the Contract Agreement.

3. Preparation of Bids

3.1. Procedure for Participation in e-Tendering

3.1.1. Registration of Bidders on e-Tendering System

All the bidders have to register on the website www.mahatender.gov.in User-id/contractor- id and password will be provided to the bidders on their registered e-mail id after completing the registration process. After signing-in through the user-id/contractor-id the bidder can download the bidding document and participate in further bidding process. For more details on the e-tendering procedure the bidders may refer the information provide on the website www.mahatender.gov.in

Digital Certificate

The bids submitted online should be signed electronically with Digital Certificate to establish the identity of the bidder submitting the bid online. For more details on the process of getting digital certificate and signing the bid document through digital certificate the bidders are advised to refer the information provided on the website www.mahatender.gov.in

3.1.2. Key Dates

The bidders are strictly advised to follow the time schedule (Key dates) of the bid of their side for tasks and responsibilities to participate in the bid, as all the stages of each bid are locked before the start time and date and after the end time and date for the relevant stage if the bid as set by the Authority and they may right to make changes time to time with their convince.

3.1.3. Preparation and Submission of Bids

The bidders have to prepare their bid online, encrypt their bid data in the Bid forms and submit Bid of all the envelopes and documents related to the Bid required to be uploaded as per the time schedule mentioned in the key dates provided in this RFP document dafter singing of the same by the Digital Signature of their authorized representatives.

Note:

(i) Bidders are requested to visit our e-tendering website regularly for any clarifications and/or due date extension or corrigendum.

(ii) Bidder must positively complete online e-tendering procedure at www.mahatender.gov.in

(iii) The Authority shall not be responsible in any way for delay/difficulties/ inaccessibility of the downloading facility from the website for any reason whatsoever.

(iv) In case, due date for submission & opening of tender happens to be a holiday, the due date shall be shifted to the next working day for which no prior intimation will be given.

(v) The Authority reserves the right for extension of due date of opening of technical bid.

3.2. Bid Validity Period

The bids shall remain valid for a period specified in Bid Data Sheet from the due date of biding as prescribed by the Authority. The validity of the bid can be extended by mutual consent in writing.

3.3. Bid Document Fees

The Bid Document shall be available for download to concerned eligible bidders immediately after online release of the bids and up to scheduled time and date as set in the key dates. The bid document can be downloaded free of cost, however, the bidders have to pay Bid document fees, of the amount as mentioned in the bid data sheet, at the time of their online bid submission The payment for the cost of bid document shall be made online through Debit/Credit card, Net banking or NEFT Challan as per the instruction provided on the website.

3.4. Earnest Money Deposit

3.4.1. The Bidder shall furnish, as part of his Bid, an Earnest Money Deposit (EMD) of the amount as mentioned in bid data sheet of this RFP document. The EMD must be submitted online through Debit/Credit card, Net banking or NEFT Challan as per the instructions provided on the website www.mahatender.gov.in.

3.4.2. No interest shall be payable on the EMD. The Bidder shall bear the cost relating to providing its EMD.

3.4.3. Any Bid not accompanied by the EMD shall be rejected by the Authority as being a non-responsive Bid.

3.4.4. The EMD of unsuccessful Bidders will be returned after the date of Work order of L1 bidder of the date of finalization of successful Bidder or signing of the contract agreement with the successful bidder whichever is later. If the Bid is cancelled for any reason whatsoever, the EMD shall be returned to all the bidders of such cancellation online.

3.4.5. The EMD of the successful Bidder will be retained by the Authority and returned approval by authority after signing of contract agreement and furnishing the performance guarantee by the successful bidder.

3.4.6. The EMD will be forfeited if:

(i) Any bidder withdraws its bid during the validity period of the Bid;

(ii) The successful Bidder fails to sign contract agreement or submit performance guarantee, as the case may be.

(iii) The Authority finds out that the bidder has involved in corrupt and fraudulent practice or has given any material miss-representation in its bid knowingly or unknowingly

(iv) Any other reason thereof mentioned in this bid document.

(v) The Bidders fails to comply with the Bid process

3.5. Technical Proposal

3.5.1. The Technical Proposal shall comprise of the following documents

(i) Essential pre-Qualification Documents as specified in the clause 2.4

(ii) Technical Bid

a) Form 1: Letter Comprising the Bid cum undertaking

b) Form 2: Format for Description of Bidder

c) Form 3: Power of Attorney for Signing of Bid

d) Form 4: Power of Attorney for Lead Member of Consortium

e) Form 5: Format for Consortium/Joint Venture Agreement

f) Form 6: Form for Financial Pre-Qualification

g) Form 7: Format for Banker's Certificate

h) Form 8: Format for summary of Technical Pre-Qualification

i) Form 8(A): Details of Projects eligible for Technical Pre-Qualification

j) Form 9 (A): Format for Providing Details of Machinery to be Deployed for the Project

k) Form 9 (B): Details of Key Personnel to be deployed for the Project

l) Form 10: Format for Providing Environment, Health and Safety Management Plan

3.5.2. All the documents/ information enclosed with the technical proposals should be self-attested and certified by the Bidder. The Bidder shall be liable for forfeiture of his EMD, if any document/ information are found false/fake/untrue before acceptance of Bid. If it is found after acceptance of the Bid, the authority may at his discretion forfeit his performance security/guarantee, security deposit, enlistment deposit and take any other suitable action.

3.6. Financial Proposal

3.6.1. The bidder shall have to quote rates in format of Financial Bid submission provided on the e-tender website. A format of the financial bid has been provided in this RFP document.

3.6.2. The price quoted by the bidder shall be entirely in Indian currency (INR).

3.6.3. The Amount in the Financial Proposal shall be quoted in figures as well as in words. If any difference in figures and words found, lower of the two shall be taken as valid and correct.

3.6.4. The bidder shall have to quote rates inclusive of GST, all duties, taxes and other levies.

3.6.5. The rates and prices quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to any adjustments on any account.

3.7. Documents Comprising the Bid

The Bid submitted by the bidder shall comprise of the following parts:

A. Bid Document Fees and EMD as per the details and instructions provided in clause 3.3 & 3.4 respectively

B. Technical Proposal as per the details and instructions provided in clause 3.5

C. Financial Proposal as per the details and instructions provided in clause 3.6

3.8. Language of Bid

3.8.1. The bid and all related correspondence and documents shall be written in the English language. Supporting documents and printed literature furnished by the Eligible Bidder with the Proposal may be in any other language provided that they are accompanied by an appropriate translation into English. Supporting materials that are not translated into English shall not be considered. For the purpose of interpretation and evaluation of the Proposal, the English language translation shall prevail.

4. Submission of Bids

4.1. Online submission of Bids

The bidders have to submit their respective bids online, as per the instructions provided on the website www.mahatender.gov.in for online submission of bids. The bidders shall submit their Bids dully completed in all respect on or before the due date of bid submission after singing of the same by the Digital Signature of their authorized representatives. The Bid submitted online by the Bidder shall be in the following part:

Part 1: This shall be known as "Envelop-A- Bid Document Fees & Earnest Money Deposit" and shall contain the documents as mentioned in clause 3.7 (A)

Part 2: This shall be Known as "Envelop B- the Technical Proposal" and shall contain the documents as specified in clause 3.7 (B)

Part 3: This shall be Known as "Envelop C- the Financial Proposal" and shall contain the Price Offer of the Bidder as mentioned in clause 3.7 (C).

4.2. Physical Submission of Bids

4.2.1. The bidders have to submit the documents ("the Original Documents"), mentioned Part 2 of the clause 4.1 above in physical form ("the physical bid submission") within the date and time for Physical Bid Submission as mentioned in the Bid data sheet.

4.2.2. The physically submitted Bid, "The Technical Proposal", shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder (Photocopy/ Scanned Copy of the signature will not be accepted). The pages in Proposal should be numbered. Each page shall be initialed by an authorized signatory of the Bidder. All alterations, omissions, additions, or any other amendments made to the Proposal shall also be initialed by the person(s) signing the Proposal.

4.2.3. The physically submitted bid shall be enclosed in a sealed envelope, and superscripted as "PHYSICAL SUBMISSION OF TECHNICAL PROPOSAL FOR THE WORK _____ (NAME OF THE WORK) _____".

4.2.4. The envelope shall bear the due date of physical bid submission, name and address of the authorized signatory of the bidder and shall be addressed as mentioned in the Bid data sheet.

4.2.5. The Authority expects Bidders to adhere to the sealing and marking instructions given above and assumes no responsibility for the misplacement or premature opening of the contents of the Proposal submitted.

4.3. Bid Due Date

4.3.1. The due date and time of the bid submission is as mentioned in the Bid data sheet.

4.3.2. The Online Bid and the physical bid should be submitted on or before the due date of bid submission.

4.3.3. The Authority may, in its sole discretion, extend the Bid Due Date by issuing an Addendum in accordance with clause 2.9 uniformly for all Bidders and publish the Addendum on the website of **www.mahatender.gov.in**

4.4. Withdrawal, Substitution and Modification of Bids

Bidders can withdraw and modify their respective online submitted bids till the end of the due date of bid submission. The Bidder will not be able to modify a Bid after the due date of submission of these Bids. The bid for which withdrawal request has been received by the Authority after the due date of bidding shall be declined from the bidding process. In the event of withdrawal of a Bid by the Bidder, after the due date of its submission, the Authority reserves the right to forfeit the EMD of the bidder at its sole discretion.

5. Bid Opening and Evaluation

5.1. Procedure for Bid opening and Evaluation

5.1.1. The Authority designated officer open the Bids online on the Bid Opening Date and Time as specified in the Bid Data Sheet.

5.1.2. The Authority designated officer will subsequently examine and evaluate the Bids in accordance with the provisions set out in this section.

5.1.3. Proposals shall first be checked for responsiveness with the requirements of the RFP and only those Proposals which are found to be responsive would be further evaluated for qualification in accordance with the criteria set out in this RFP.

5.1.4. The Technical proposal shall be evaluated next based on the criteria set out in this RFP documents. The Financial bids of only those bidders who qualify the technical qualification shall be opened.

5.1.5. All technically qualified bidders will be notified for opening of the Financial Bids.

5.1.6. The Municipal commissioner of Amravati have right to reject or accept any bid if there is Conflict between bidder & Tender Scrutiny Committee (TSC) members.

5.1.7. The Municipal Commissioner, Amravati and Bidder have decided arbitrator if there is legal Conflict between bidder & TSC.

5.2. Clarifications

5.2.1. To facilitate evaluation of Proposals the Authority may, at its sole discretion, seek clarifications from any Bidder during the evaluation period. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) shall be in writing. If a Bidder does not provide clarifications sought within the prescribed time, its Proposal shall be liable to be rejected. In case the Proposal is not rejected, the Authority may proceed to evaluate the Proposal by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of the Authority.

5.2.2. Bidders are advised that the evaluation of Proposals will be entirely at the discretion of the Authority. Bidders will be deemed to have understood and agreed that no explanation or justification on any aspect of the Bidding Process or selection will be given.

5.2.3. Any information contained in the Proposal shall not in any way be construed as binding on the Authority, its agents, successors or assigns, but shall be binding against the Bidder if any Project is subsequently awarded to it under the Bidding Process on the basis of such information.

5.2.4. The Authority reserves the right not to proceed with the Bidding Process at any time without notice or liability and to reject any Proposal without assigning any reasons.

5.3. Confidentiality

5.3.1. The Authority shall ensure that the rules for the bidding proceedings for the Project are applied in a non-discriminatory, transparent and objective manner. The Authority shall not provide to any Bidder information with regard to the Project or the bidding proceedings, which may have the effect of restricting competition.

5.3.2. Information relating to the examination, clarification, evaluation, and recommendation for the short-listed pre-qualified Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising the Authority in relation to or matters arising out of, or concerning the Bidding Process. The Authority will treat all information, submitted as part of Proposal, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or the Authority.

5.3.3. Any effort by a Bidder to influence Authority's evaluation of Bids or award decisions will result in the rejection of the Bidder's Bid.

5.4. Proposal Evaluation

5.4.1. **Envelope 'A'** shall be opened first online at the time and date notified and its contents shall be checked. In cases where Envelope 'A' does not contain all requisite documents, such bid shall be treated as non-responsive, and **Envelope "B" and "C"** of such bid shall not be opened.

5.4.2. In the next step of evaluation, the Envelop 'B' shall be opened online at the time and date notified. The bidder shall have freedom to witness opening of the Envelope 'B' of the Bid

5.4.3. A detailed Technical Evaluation of the responsive bids shall be carried out and the bidder shall be considered technically qualified if:

(i) The online bid has been submitted in the manner as specified in clause 4.1.

(ii) The technical proposal contains all the documents as specified in clause 3.7 (B).

(iii) Physical bid had been received by the Authority within the specified time and it contains all the documents in original and has been submitted in the manner as specified in clause 4.2.

(iv) It is fulfilling the pre- Qualification Criteria as specified in clause 2.3 and furnished all the necessary support documents in support of such qualification.

(v) It has provided all the other information and documents as directed in this RFP document corresponding to the technical qualification of the bidder.

5.4.4. **Envelope 'C'** (Financial Proposal) of bidders who are not qualified in Technical Bid **(Envelope 'B')** shall not be opened.

5.4.5. **Envelope 'C'** (Financial Proposal) of the technically qualified bidders shall be opened online at the date time & notified. The bidder shall have freedom to witness opening of the **Envelope 'C'.**

5.4.6. After opening **Envelope 'C'** the Financial proposal shall be checked for responsiveness. A Financial Proposal shall be responsive if it has been submitted in the manner as specified in clause

3.6. If the financial proposal of a bidder is non-responsive, it shall be declined from the bidding process.

5.4.7. All the responsive Financial Bids would then be ranked in ascending order of the quoted financial offer, with the Bidder quoting the lowest financial offer shall be ranked first as "L1" and the Bidder quoting the second lowest financial offer shall be ranked second as "L2" and so on.

5.5. Successful Bidder

5.5.1. The Bidder ranked first (the "L1") in accordance with the above procedure would be declared as the successful Bidder.

5.5.2. In the event that two or more Bidder's Financial Bids are exactly the same, then the Authority reserves the right either to:

(i) the L-1 bidder shall be decided either by obtaining spontaneous online bid from all the bidder who have quoted the same L-1 rate, which of course must be lower than their original quoted rates
or;

(ii) Take any such measure as may be deemed fit in its sole discretion, including annulment of the bidding process.

5.5.3. The Authority will notify other Bidders that their Proposals have not been accepted and their EMD will be returned as promptly as possible as per provision set out in clause 3.4 of this RFP document

5.6. Award of Contract

5.6.1. The Authority shall notify the successful bidder (the "L1") as determined in clause 5.5 above, by issuing a 'Letter of Acceptance' (LOA) that his bid has been accepted.

5.6.2. The successful Bidder shall acknowledge his acceptance of the LoA issued by the Authority within 15 (fifteen) days as evidenced by signing and sending a copy of the LoA issued. In the event the duplicate copy of the LoA duly signed by the Authorized signatory of the Selected Bidder is not received within the stipulated date, the Authority may, unless it consents to extension of time for submission thereof, appropriate the EMD of such Bidder on account of failure of the Selected Bidder to acknowledge the LoA.

5.7. Performance Security

5.7.1. Prior to the signing of the contract agreement, the successful Bidder shall have to furnish Performance Security to the Authority in the form of bank guarantee ("the Performance Bank Guarantee" (PBG)) issued by a nationalized / scheduled bank located in India or a reputable bank located abroad having corresponding bank in India, in the format given in Form12, for an amount equivalent to 5% of the Contract value. The performance security of a joint venture shall be in the name of the joint venture (performance Security deposit should be paid latest GRs of State Government of Maharashtra).

5.7.2. Failure of the successful bidder to comply with the requirements of clause 5.7.1 above, shall constitute a breach of contract, cause for annulment of the award, forfeiture of the EMD, and any such other remedy the Authority may take under the contract, and the Authority may resort to awarding the contract to the next ranked bidder.

5.8. Signing of Contract Agreement

5.8.1. The successful bidder shall have to furnish the Performance security as directed in clause 5.7 above and sign the contract agreement within 21 days of issue of LoA.

5.8.2. The signing of contract agreement shall be reckoned as intimation to commencement of work. No separate work order shall be issued by the Authority to the contractor for commencement of work.

5.8.3. In the event of failure of the successful bidder to submit Performance Security and or sign the Contract Agreement, his EMD shall stand forfeited without prejudice to the right of the Authority for taking action against the bidder.

5.9. Fraud and Corrupt Practices

5.9.1. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Bidding Process and subsequent to the issue of the LoA and during the subsistence of the Contract Agreement. Not with standing anything to the contrary contained herein, or in the LoA or the Contract Agreement, the Authority shall reject a Bid, withdraw the LoA, or terminate the Contract Agreement, as the case may be, without being liable in any manner whatsoever to the Bidder or Contractor, as the case may be, if it determines that the Bidder or Contract, as the case may be, has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice in the Bidding Process. In such an event, the Authority shall forfeit and appropriate the EMD or Performance Security, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practices, as the case may be.

5.9.2. For the purposes of Clause 5.9.1, the following terms shall have the meaning hereinafter respectively assigned to them:

(i) **Corrupt Practice** means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Bidding Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with the Bidding Process or the LoA or has dealt with matters concerning the Contract Agreement or arising there from, before or after the execution there of, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Bidding Process) ; or (ii) engaging in any manner whatsoever, whether during the Bidding Process or after the issue of the LoA or after the execution of the Contract Agreement, as the case may be, any person in respect of any matter relating to the Project or the LoA or the Contract Agreement, who at any time has been or is a legal, financial or technical adviser of the Authority in relation to any matter concerning the Project;

(ii) **Fraudulent practice** means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Bidding Process;

(iii) **Coercive practice** means impairing or harming or threatening to impair or harm, directly or

indirectly any person or property to influence any person's participation or action in the Bidding Process;

(iv) **Undesirable Practice** means(i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Bidding Process; or (ii) having a Conflict of Interest;

And;

(v) **Restrictive practice** means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Bidding Process.

6. Scope of Work

The current project intends to undertake the works required for Dumpsite Land Reclamation through Bio-mining of old Dumped Municipal Solid Waste/Legacy Waste, resource recovery and scientific disposal of residual solid waste under the Amravati Municipal Corporation, Amravati. The contract shall be awarded to the successful bidder ("the contractor") for a period of 12months (excluding rainy season) reckoned from the date of signing of contract agreement or the date of issue of Consent to Establish (CTE) to the project, whichever is later. The Authority shall appoint an Engineer (the "Engineer-in charge") for overall supervision, monitoring and certification of the works executed by the contractor. The brief scope of work to be carried out by the selected contractor during the execution of the intended project includes, but not limited to, the following component:

(i) The project information and Site details has been provided in 1.3 of this RFP document.

(ii) The contractor shall carryout Total Station Survey of complete project site (9.35 Ha area) including area approximately earmarked (6.55 Ha) in which Bio-mining is to be done. Total Station Survey shall be certified by the Engineer-in-charge and project management consultant. And finalize earmark area (land under 6.55 Ha out of total 9.35 Ha) of dumped waste at site and provide flow chart of how to reclaim site. The survey shall be done at the time of possession of the site as well as at the completion of each milestone of physical progress of land reclamation at the site. The survey report shall be submitted along with each running bill and certified by Engineer-in-charge and Project Management Consultant. The area earmarked by Authority for Reclamation through Bio-mining shall be considered as 100% land area reclamation on which old and new legacy waste which is available at said site for the scope of work. The contractor shall clean the finalized earmarked area upto the original ground level (OGL) as shown by Engineer In charge during initial total station survey before commencement of works.

(iii) The Contractor shall carry out baseline environmental survey of the site as per EMP and specification mentioned in SWM Rules 2016 & CPCB Guidelines legacy waste.

(iv) The Contractor shall conduct its own due diligence for site investigation, analyzing the characteristics, composition and quantum of the waste at the Project site.

(v) Dumpsite reclamation will be done by dividing the site into suitable sectors/loops in consultation of the Engineer-in-charge based on the priority of land reclamation.

(vi) Usually the top layer has fresh waste, dust and may have several materials in the active biological state. This layer is to be stabilized through application of Bio-Culture, herbal/biological sanitizers, inoculants or through any suitable scientific method as proposed by the contractor and accepted by the Engineer-in-charge. Odor shall be controlled and minimized through application of deodorant or scientific method.

(vii) Excavating the existing mixed compacted MSW till the OGL (original ground level) as shown by Engineer In charge in the land portion allocated/earmarked by the Authority and sieving them by Mechanical sieving machine or any other suitable technology proposed and accepted by the Engineer-in-charge which help to finish work within stipulated time period.

(viii) The contractor shall deploy sufficient static/ mobile machinery or make planning such as (minimum with 5 No's of minimum capacity of 500MT per day) or Quantity bio-mining more than 2400 MT per day, manpower and required resources to execute the project scope within the project duration.

(ix) Maintenance and security of machinery and workers at site is contractor responsibility.

(x) Provision, installation, operation and maintenance of plant, machineries, infrastructure facilities and amenities for excavation, sieving of the excavated MSW, storing the segregated materials, reuse, marketing, selling, and transporting them from the project site by the contractor at his own cost.

(xi) Construction of temporary shed, platform and creation of facilities for handling, separating, segregating, storing and quantifying of the excavated MSW and processing material.

(xii) Excavating the soil which lost its stability due to MSW dumping with necessary dewatering works in the portion of the land earmarked at the cost of the Contractor.

(xiii) MSW waste brought for segregation and processing from the earmarked land portion shall be quantified (in Cubic meter, based on number of vehicles trips and capacity) after excavation and record of the same shall be maintained by the Contractor and Authority jointly.

(xiv) Segregate the excavated MSW in the land portion earmarked into as many kinds and categories as possible of Useful Material such as compost, soil conditioner, recyclables, raw RDF, filler material (Soil, C&D) and Un-useful material such as residual Solid Waste.

(xv) Packing, storing, stacking, selling, diverting for recycling, marketing and recycling of all Useful Material within thirty days of segregation at the cost of the Contractor, without accumulation in the storage facility at the project site beyond thirty days.

(xvi) Baling, packing, stacking, storing and sale of non-recyclable fraction of high calorific as raw material to RDF producer/ user or sale to waste to energy or co-processing in cement plants or to thermal power plants . Contractor shall execute MoU with authorized recycler/ RDF producer/ user or sale to waste to energy or co-processing in cement plants or to thermal power plants. The copy of MoU shall be provided to Authority.

(xvii) Stacking, transporting, spreading and compacting the segregated C&D, Soil and Inert as filler material in low level and depression area within the site and prepare well compacted and clear ground for proposed development at site or disposing such material in the low level area or quarry area designated by the Authority at the cost of the Contractor with proper compliance.

(xviii) The revenue or the income from the sale of the segregated Useful Material such as reusable and recyclable, Compost, soil conditioner, raw RDF, C&D, Soil or any other by-product materials shall go to the contractors account. However, before selling the recovered material the Contractor, at its own cost, will conduct a lab testing of such materials from an NABL accredited lab, for the parameters as recommended by the Engineer-in-charge or applicable rules/guidelines, and submit the report of the same to the Engineer-in-charge. The contractor shall initiate the sale or disposal process of such material by-products only after the acceptance/approval of the engineer-in-charge.

(xix) The Contractor shall hand over reclaimed land and scientific residual solid waste disposal site to the Authority in a good and acceptable condition as per SWM Rules 2016.

(xx) The Contractor Shall be responsible for procuring necessary approvals from Component authority.

(xxi) Record of the residual solid waste disposal quantity (in Cubic meter, based on number of vehicles trips and capacity) shall be maintained by the Contractor and the Authority jointly.

(xxii) Carrying out the entire project work in accordance with the Detailed Plan of Action and schedule proposed by Bidder and approved by the Authority at the cost of the Contractor.

(xxiii) Using only covered body vehicles for the transportation of materials at the cost of the Contractor.

(xxiv) Apply method, process, equipment and resources which would reduce the impact of dumpsite reclamation activity in the adjacent areas.

(xxv) Create facilities and make arrangements for controlling/ mitigating the emission, pollution and contamination (Environment impact) including air, water and soil including mitigation for of dust, odor and noise pollution at the cost of the Contractor.

(xxvi) Construction of temporary site office, CCTV camera for working area, water, power, sanitation facilities and accommodation facilities of workers for the Project as per statutory standards at the cost of the Contractor.

(xxvii) Providing security arrangement for the project site, machineries, equipment etc. at its own cost.

(xxviii) For initial six months of the project after signing the agreement, Contractor has to stack daily coming fresh waste at demarcated site as shown by Engineer In charge and process, treat the same before completion of the work.

(xxix) Completing the work within the Contract Period.

7. Payment Schedule

7.1. Payment Mechanism

7.1.1. The Authority will be releasing payment for the work based on the percentage of proposed land (100% of the earmarked land by the Authority)to be reclaimed as per the achievement of the milestone mentioned in the table below:

Milestone	Physical Progress	Time of Completion from the date of Agreement (Including Monsoon Period)	Broad Parameters of Physical Progress	% release of Contract Value
First Milestone	40% of the proposed land to be reclaimed	4 Months	• 40% of the proposed land to be reclaimed	30%
Second Milestone	30% of the proposed land to be reclaimed	4 Months (cumulative 8 months)	• Cumulative 70% of the proposed land to be reclaimed	30%
Third Milestone	30% of the proposed land to be reclaimed	4 Months (cumulative 12 months)	• Cumulative 100% of the proposed land to be reclaimed	40%

(Processing fee payment Interval= 30%, 30% &40 % respectively based on Physical progress as per clause 7.1.1 minus liquidated damage as per clause 7.2 and penalty for non-compliance as per clause 7.3)

7.1.2. The Contractor shall, on completion of the particular Milestone of the work, before the 20th (twentieth) day of the Month or in case the 20th (twentieth) day of a Month is a holiday then on the following working day of such Month, submit to the Authority a statement ("the Running Bill") providing the following details:

(i) Amount of Processing Fee for the completed milestone calculated in accordance with Clause 7.1.1
(ii) Items of Work Completed at site including photographic evidence of the same.
(iii) Certificate from the Engineer-in-charge certifying the work done and milestone achieved.
(iv) Details of the employment of Man-hours, Machinery and equipment utilized to achieve the physical progress of that Milestone.

7.1.3. The Authority shall not pay interest on the bill amount, if delay occurs in the release of the payment, for any reason whatsoever.

7.2. Liquidated Damage

7.2.1. In case the work is not completed within the stipulated period of completion of whole or part of work (achievement of milestones specified by authority) along with all such extensions which are granted to the Contractor for either Authority's default or Force Majeure, the compensation shall be levied on the contractor at the rate of 0.05% of the contract amount per day of delay limited to maximum of 10% of contract amount.

7.2.2. The Authority will deduct the liquidated damages from payments due to the Contractor.

7.2.3. If the liquidated damage attains to a maximum of 10% of the contract amount the authority may:

(i) Terminate the contract agreement and forfeit the EMD and the Performance Security.

(ii) Retain the contractor on depositing the amount equivalent to the such liquidity damage of 10% of the contract amount. However, the retention of the contractor on such ground shall not free him from his liabilities for completion of the work or any future imposition of liquidity damages.

7.2.4. The decision of the Authority in this regard shall be final and binding upon both the parties.

7.3. Penalty for Non-Compliance

Sr. No.	Penalty Description	Penalty Amount
1.	Non-Compliance to, SWM Rules 2016 and other Environmental Standards notified by regulatory authorities or as specified in the Contract.	Rs. 1000/- per Incidence per day till the compliance of the failure in addition to the Penalties/ Actions imposed by various authorities.
2.	Non provision of 1. Site Facilities as per specifications	Rs. 500/- per item per day
3.	Non-compliance of Safety Standards, use of Personal Protective Equipment by the workers	Rs.5000/- per Incidence per day till the compliance of the failure in addition to the Penalties/ Actions imposed by various authorities.

8. Miscellaneous

The Bidding Process shall be governed by, and construed in accordance with, the laws of India and the Courts at AMRAVATI (M.S) shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process. The AUTHORITY, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to:

(i) Suspend and/or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;

(ii) Consult with any Bidder in order to receive clarification or further information including justification of financial bid submitted;

(iii) Retain any information and/ or evidence submitted to the AUTHORITY by, on behalf of, and/or in relation to any Bidder; and/ or

(iv) Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.

(v) It shall be deemed that by submitting the Bid, the Bidder agrees and releases the Authority, it employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection herewith and waives any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or future.

Forms for Technical Bid Submission

Form 1: Letter Comprising the Bid cum undertaking
(On Non-Judicial Stamp of Rs.500)

Date:

To,

THE COMMISSIONER,
_____
_____,
_____,
_____,

Dear Sir,

Sub: RFP Reference No._____dated_____for Selection of Contractor to execute the work of Bio-mining of old dump site at Sukali Compost Depot, Amravati.

With reference to your RFP document dated……., I/we, have examined the Bidding Documents and understood their contents, hereby submit my/our Bid for the aforesaid Project "**Selection of Contractor for execute the work of Bio-mining of old dump site, Sukali Compost Depot, AMRAVATI"** and state as under:

1. The Bid is unconditional and unqualified.

2. All information provided in the Bid and in the Appendices is true and correct.

3. This statement is made for the express purpose of qualifying as a Bidder for the Project as explained in this RFP document.

4. I/We shall make available to the Authority for any additional information it may find necessary or require to supplement or authenticate the Bid.

5. I/We acknowledge the right of the Authority to reject our Bid without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.

6. We certify that in the last three years, we/ any of the Consortium Members have neither failed to perform on any contract, as evidenced by judicial pronouncement or arbitration award, nor been expelled from any project or contract nor have had any contract terminated for breach on our part.

7. I/We declare that:
   a. I/We have examined and have no reservations to the Bidding Documents, including any Addendum issued by the Authority.

   b. I/We do not have any conflict of interest in accordance with Clauses 2.10 of the RFP document.

   c. I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt

practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprise or any government, Centre or State; and

d. I/We here by certify that we have taken steps to ensure that in conformity with the provisions of Clause 5.9 of the RFP, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

8. I/ We understand that you may cancel the Bidding Process at any time and that you are neither bound to accept any Bid that you may receive nor to invite the Bidders to Bid for the Project, without incurring any liability to Bidders

9. I/We believe that we/ our consortium/proposed consortium satisfy (ies) the pre-qualifying criteria and meet(s) the requirements as specified in the RFP document and am/are qualified to submit this Bid.

10. I/We declare that we/any Member of the Consortium am/are not a Member of any other Consortium submitting a Bid for the Project.

11. I/We certify that we have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which could cast a doubt on our ability to undertake the Project or which relates to a grave offence that out rages the moral sense of the community.

12. I/ We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.

13. I/We undertake that in case due to any change in facts or circumstances during the Bidding Process, we are attracted by the provisions of disqualification in terms of the guidelines referred to above, we shall intimate the Authority of the same immediately.

14. We acknowledge that our Consortium/ proposed Consortium shall bear the following composition:
    a Lead Member: M/s…….
    b Technical member: M/s…….

    And we further undertake that above consortium composition shall be maintained till the end of this contract period or extension thereof. We further acknowledge that the lead member takes the full responsibility towards execution of the project and the terms and condition laid down in the contract agreement. *(Individual Bidder to strike out this point).*

15. I/We here by irrevocably waive any right which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority in connection with the selection of the Bidder, or in connection with the Bidding Process itself, in respect of the above mentioned Project and the terms and implementation thereof.

16. In the event of my/our being declared as the Selected Bidder, I/We agree to enter into a Contract Agreement in accordance with the draft that has been provided to me/us prior to the Bid Due Date. We agree not to seek any changes in the afore said draft and agree to a bid by the same.

17. I/We have studied all the Bidding Documents carefully and also surveyed the project area. We understand that except to the extent as expressly set for thin the Contract Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the Authority or

in respect of any matter arising out of or concerning or relating to the Bidding Process including the award of Contract.

18. The Financial Bid has been quoted by me/us after taking into consideration all the terms and conditions stated in the RFP and draft Contract Agreement, our own estimates of costs and careful assessment of the site and all the prevailing and expected conditions that may affect the Bid.

19. I/We offer to the Authority a Bid Document Fees of INR ---------- (INR ----------) and EMD of INR----------) submitted online through the website "www.mahatender.gov.in"as specified in this RFP document.

20. I/We agree and understand that the Bid is subject to the provisions of the Bidding Documents. In no case, I/We shall have any claim or right of whatsoever nature if the Project/ Contract is not awarded to me/us or our Bid is not opened.

21. I/We hereby submit our Bid in the form as specified in the RFP document for undertaking the aforesaid Project in accordance with the Bidding Documents and the Contract Agreement.

22. I/We agree to keep this offer valid for 180 (One Hundred Eighty) days from the Due Date of online Bid submission as specified in the RFP document or any other such duration as directed by the Authority.

23. I/We agree and undertake to abide by all the terms and conditions of the RFP document. In witness thereof, I/we submit this Bid under and in accordance with the terms of the RFP document.

24. I/we have received all the clarifications issued by the Authority.

25. I/we will abide by the terms and condition set forth in the RFP document, condition of contract and draft Contract agreement and a copy of the same bearing initial of the undersign on every page is attached herewith.

26. Notwithstanding any qualification or conditions, whether implied or otherwise, contained in our Proposal we hereby represent and confirm that our Proposal is unqualified and unconditional in all respects.

Yours faithfully,

Date:

(Signature of the Authorized signatory)

Place:

(Name and designation of the Authorized signatory)

Name and Seal of Bidder/Lead Firm

Form 2: Format for Description of Bidder

S.No.	Particulars	Details		
		Individual Bidder Company (1)	**Lead Member of Consortium (2)**	**Technical Member of Consortium (3)**
1.	Name of the Bidding company			
2.	Date of incorporation and /or Commencement of Business			
3.	Brief description of the Bidder's main line of business			
4.	Details of individual (s) who will serve as the point of contact/ communication for Authority with the Bidder:			
a.	Name			
b.	Designation			
c.	Company/Firm			
d.	Address:			
e.	Mobile Number			
f.	Email Address			
g.	Fax Number			
5.	Details of Authorized Signatory of Bidder			
a.	Name			
b.	Designation			
c.	Company/Firm			
d.	Address:			
e.	Mobile Number			
f.	Email Address			
g.	Fax Number			

Note:

Column '1' to be filled by the Individual Bidder and Column '2' & '3' to be filled by the respective members of the consortium

Form 3: Power of Attorney for Signing of Bid

Know all men by these presents, we, _____(name of the firm and address of the registered office) do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. _____(Name), son/daughter/wife of _____ and presently residing at _____who is presently employed with us/ the Lead Member of our Consortium and holding the position of _____, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and our behalf , all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our bid for the *[*Scientific Dumpsite Land Reclamation through Bio-mining, Resource Recovery and Scientific Rejects Disposal, Sukali Compost Depot, Amravati.*]*Project proposed or being developed by the Amravati Municipal Corporation (the "AUTHORITY") including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders' and other meetings and providing information/ responses to the AUTHORITY, representing us in all matters before the AUTHORITY, signing and execution of all contracts including the Contract Agreement and undertaking consequent to acceptance of our bid, and generally dealing with the AUTHORITY in all matters in connection with or relating to or arising out of our bid for the said Project and/ or upon award thereof to us and/ or till the entering into of the Contract Agreement with the AUTHORITY.

AND we here by agree to ratify and confirm and do here by ratify and confirm all acts, deeds and things law fully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the power shear by conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHERE OF WE, _____, THE ABOVE NAME DPR IN CIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS_____DAY OF___, 2018.

For_____

(Signature)

(Name, Title and Address)

Witnesses:

Accepted [Notarized]

(Signature)

(Name, Title and Address of the Attorney)

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a resolution/power of attorney in favor of the person executing this Power of Attorney for the delegation of power here under on behalf of the Bidder.*
- *To be executed on aStampPaperofRs.100/-,duly notarized.*

Form 4: Power of Attorney for Lead Member of Consortium

Whereas the _____ has invited bids for the Project titled [Project Name] ("the Project").

Whereas, M/S _____ and M/S _____(Collectively "the Consortium") Members of the Consortium are interested in bidding for the Project in accordance with the terms and conditions of the Request for Proposal(RFP) and other connected documents in respect of the Project, and

Whereas, it is necessary for the Members of the Consortium to designate one of them as the Lead Member with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

We, M/S_____having our registered office at _____ and, M/s._____ _____, having our registered office at_____, [the respective names and addresses of the Consortium members] (Collectively referred to as Consortium), constitute, appoint and authorize M/s_____, having its registered office at_____, being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (herein after referred to as "Attorney") and hereby irrevocably authorize the Attorney(with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the bidding process and, in the event the Consortium is awarded the Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders and other meetings, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the Authority, and/ or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the consortium's bid for the Project and/or upon award thereof till the Contract Agreement is entered into with the Authority. AND here by agree to ratify and confirm and do here by ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers here by conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHERE OF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS_____DAY OF_____. For _____

(Name & Title)

For_____

(Name & Title)

For_____

(Executants)

(To be executed by all the Members of the Consortium)

Witnesses:

1.

2.

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants (s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as are solution/ power of attorney in favor of the person executing this Power of Attorney for the delegation of power here under on behalf of the Bidder.*
- *To be executed on a Stamp Paper of Rs.500/-duly notarized.*

Form 5: Format for Consortium/Joint Venture Agreement

PERFORMA FOR CONSORTIUM/JOINT VENTURE AGREEMENT BETWEEN M/s_____ and M/s_____In mention for Bid No. _____of_____ for the work of _____

The Joint Venture Agreement executed on this day of between M/S _____a company underthe Laws of Company Act, 1956 and having its registered office at_____and Corporate Office at (herein after called the LEAD PARTNER, which expression shall include its successors, Executers and permitted Assigns)AND M/s_____a company having its registered office at(herein after called as TECHNICAL PARTNER, which expression shall include its successors, Executors and permitted Assigns)for the purpose of making a Bid and entering into a contract (in case of award) for "_____
Works for" Tender No. of _____, _____ (herein after called as the Authority).

WHEREAS, the Authority Invited Bids as per above mentioned tender Document for the "_____ "

WHEREAS in accordance with Instruction to Bidders of the Tender Specification. A Bidder may be a private entity or a government-owned entity or any combination of such entities with the intent to enter into an agreement supported by a letter of intent or under an agreement in the form of a consortium or Joint Venture

NOW THIS INDENTURE WITNESSETH AS UNDER

In consideration of the above premises and agreements all the partners to this Consortium/Joint Venture do hereby now agree as follows:

1. In consideration of the award of the Contract by the Authority to the Consortium/Joint Venture partners, we, the Partners to the Consortium/Joint Venture Agreement do hereby agree that M/s_____ shall act as LEAD PARTNER who is a technically valid and further declare and confirm that we shall jointly be bound unto the Authority for the successful performance of the Contract and shall be fully responsible for the works in terms of quality requirements and timeliness in performance in accordance with the Contract. Irrespective of Joint responsibility, it is expressly understood that LEAD PARTNER will be present at the site of the works, through its authorized representative at all times and play lead role in mobilizing resources and execution of the contract. The LEAD PARTNER will incur liabilities and receive instructions for and on behalf of any or all partners of the Consortium/Joint Venture and entire execution of the contract shall be done by the LEAD PARTNER and will be the sole responsibility of the lead partner of the consortium and payment under the contract shall be received by the LEAD PARTNER. The precise responsibility of the members of the Joint Venture in respect of planning, quality, execution of the works is as under *(Provide Roles of Each Member of Consortium/Joint Venture):*

   LEAD PARTNER:

   TECHNICAL PARTNER:

   If in the determination of the Authority that the LEAD PARTNER is unable to fulfill its responsibility as above, the Authority shall be at liberty to terminate the contract which shall be binding on all partners of the Joint Venture.

2. In case of any breach of the said Contract by the LEAD PARTNER or Technical Partners of the Consortium/Joint Venture Agreement, the Partner(s) do hereby agree to be fully responsible for the

successful performance of the Contract and to carry out all the obligations and responsibilities under the Contract in accordance with the requirements of the Contract.

3. Further, if the Authority suffers any loss or damage on account of any breach in the Contract or any shortfall in meeting the performance guaranteed as per the works Contract, the Partner(s) of these presents undertake to promptly make good such loss or damages caused to the Authority, on its demands without any demur. It shall not be necessary or obligatory for the Authority to proceed against LEAD PARTNER to these presents before proceeding against or dealing with other Partner(s).

4. The financial liability of the Partners of this Consortium/Joint Venture agreement to the Authority, with respect to any of the claims arising out of the performance or non-performance of the obligations set forth in the said Consortium/Joint Venture Agreement, read in conjunction with the relevant conditions of the Contract shall, however, not be limited in any way so as to restrict or limit the liabilities of any of the Partners of the Joint Venture agreement.

5. It is expressly understood and agreed between the Partners to this Consortium/Joint Venture agreement that the responsibilities and obligations of each of the Partners has been delineated in clause no. 1 herein above to this agreement. It is further agreed by the Partners that the above sharing of responsibilities and obligations shall not in any way be a limitation of joint responsibilities of the Partners under this Contract.

6. This Consortium/Joint Venture Agreement shall be construed and interpreted in accordance with the laws of India, courts of _____, Maharashtra shall have the exclusive jurisdiction in all matters arising there under.

7. It is further agreed that the Consortium/Joint Venture agreement shall be irrevocable and shall form an integral part of the contract, and shall continue to be enforceable till the Authority discharges the same. It shall be effective from the date first mentioned above for all purposes and intents.

IN WITNESS WHEREOF, the Partners to the Consortium/Joint Venture Agreement have through their Authorized Representatives executed these presents and affixed Common Seals of their companies, on the day, month and year first mentioned above.

[Name, Signature of all Joint Venture Partners]

[Name and Signature of Witnesses]

Form 6: Form for Financial Pre-Qualification

A. **Turnover**

Financial Year	**Annual Turnover (in INR)**
Year1	
Year2	
Year3	
Average Turnover	

B. **Net Worth as onYear1 (Financial Year preceding to Due date of Bidding):INR_____**

Note:

1. *The financial year shall mean the period commencing from April 1 of any given year to March 31 of the succeeding year.*

2. *The Bidder shall provide the Audited Annual Financial Statements of the corresponding years. Failure to do so would result in the Proposal being considered as non-responsive. In case the annual accounts for the latest financial year are not audited and therefore cannot make it available, the applicant shall give an undertaking, to this effect and the statutory auditor shall certify the same. In such case, the applicant shall provide the audited annual reports for five years proceeding the year for which audited annual report is not being provided.*

3. *A certificate from Statutory Auditor should be provided as supporting document certifying the Financial Pre-Qualification.*

(Signature of the Authorized signatory)

Form 7: Format for Banker's Certificate

To,
The Commissioner,
_____
_____
_____
_____

Dear Sir/Madam,

Ref: Request for Proposal issued by the _____ dated_____

Sub: **RFP Reference No._____dated_____for Selection of Contractor to _____** *(Name of Work)*

This is to certify that M/s. _____ * is a reputed company with a good financial standing. If the contract for this work _____ *(Name of Work)*, is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. …… to meet the working capital requirements for executing the above contract

Sd./
Senior Bank Manager
Name of Bank
Address
Contact No.

***Change the text as follows for Joint venture:**

This is to certify that M/s *(Name of Lead Member)* who has formed a Consortium/Joint Venture with M/s_____ *(Name of Technical Member)* is a reputed company with a good financial standing. If the contract for this work to _____ *(Name of Work)*, is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. …… to meet the working capital requirements for executing the above contract

Sd./
Senior Bank Manager
Name of Bank
Address
Contact No.

Form 8: Format for summary of Technical Pre-Qualification

(List only those works, which are similar to the proposed works for which the Qualification Information is submitted)

A. Summary Table

Name of Applicant/Member of Consortium (in case of consortium) Claiming the Project Experience: _____					
S. No.	Brief Project Description	Project Award Date *(Only those Project(s)awarded in preceding 7 years ending last day of month previous to the one in whichbids invited shall be considered*	Project Completion Date/ expected completion date	Project Cost in INR (Cr) A	Claiming Entity's Share in the Project (%)

B. Average Project Project (As per column 'A') of eligible projects handled (as mentioned in summary table above is _____ (INR)

1. *The details of each of the works mentioned in the above table must be provided separately in Form 8 (A).*
2. *Use a separate sheet for each member in case of a consortium.*
3. *Provide attested copies of Work Orders and Completion Certificates for each project. Work orders/ testimonials will be verified if required.*
4. *Each certificate of experience will be duly signed/ confirmed by a representative of the client.*

Form 8(A): Details of Projects eligible for Technical Pre-Qualification

(Provide Details for Only those Projects listed in Form 8, use separate sheet for each project)

Name of Applicant/Member of Consortium (In case of Consortium) Claiming the Project Experience : _____	
1.	Name of Project
2.	Location of Project
3.	Name of the Client
4.	Client's Address & Telephone Number, Fax Number and e mail ID of contact person
5.	Project Cost (in INR Cr)
6.	Nature of works and special features relevant to this project. (Details pertinent to the Technical Criteria of this RFP shall be submitted)
7.	Contract role (check one) 1. Sole Contractor 2. Consortium/Joint Venture 3. Sub-Contractor
8.	a) Project Capacity: b) Your Company's share in the Project (%):
9.	Date of Award
10.	Contract duration _____ years_____ Months
11.	Date of Completion
12.	Whether Completed in specified duration, If No, reason for delay
13.	Specified requirements
14.	Name and professional qualifications of applicant's Engineer-in-Charge of the work:
15.	Were there any penalties/fines/stop-notice/compensation/liquidated damages imposed? (Yes or No). If yes, give amount and explanation.

Form 9: Format for Submitting Dumpsite Reclamation and Gas/ Leachate Management Plan

The Bidder will submit a Dumpsite Reclamation, Gas and Leachate Management Plan covering the following topic:

1. Dumpsite land reclamation: Present the proposed Site layout development, land reclamation sequence on layout drawing, general arrangement of machineries, screening, sorting, storing, packing areas.
2. Excavation, Screening & Resource Recovery: Indicate number, type and capacity of equipment's/machinery to be deployed for the purpose of excavation, segregating, sorting, retrieving recoverable materials, storing, baling, packing, selling, provide the basis for deciding the number and justify the time period estimated for the activity and operation and maintenance details.
3. Bio-mining of un-processed municipal solid waste: Specify the proposed method in detailed, quantity of resources required, provide the basis for deciding the quantity of resources, number and justify the time period estimated for the activity and operation and maintenance details.
4. Development of facility for Scientific disposal of residual Solid Waste: Detail the proposed method and quality control protocol for laying various landfill liner layers, quantities of materials, equipment/ machinery proposed to be deployed and justification of the proposed to facility and scientific rejects disposal/ backfill in facility operation and maintenance details.
5. Leachate collection, treatment system and surface water drainage works: Present leachate collection system and surface water drainage system including the alignment, treatment, disposal locations and invert levels

All of the above should be suitably supported with the engineering drawings, manpower requirement, fuel/ power requirement and explanation of estimated time schedule.

Based on the above work requirement, the Bidder will provide details of plant, machinery and equipment proposed to be deployed in the works in the format 9(A)

The Bidder shall also provide a list of key personnel proposed to be deployed for the work with their curriculum mention in the Format Provided in Form 9 (B)

Form 9 (A): Format for Providing Details of Machinery to be deployed for the Project

Name of the bidding company/Consortium members' company owning the Machinery/Equipment_____					
Item of Equipment Including Make	Number and Capacity	Ownership Status		Age and Condition	Remarks Regarding Condition/Source/ Availability
		Owned/ Leased/ to be Procured	Number & Capacity		

Note:

1. *List only the key equipment for construction, standby power, material handling and vehicles for site, etc., which the Company proposes to use for the proposed works at the site.*

2. *The applicant should clearly demonstrate that he has access to all key equipment which will be required for the successful completion of the works.*

Form 9 (B): Details of Key Personnel to be deployed for the Project

(Use separate Sheet for each key personnel)

Name of Bidder Company/Consortium members' company *(in case of consortium)*:			
Proposed Position			
Key Personnel Information	1. Name 2. Date of Birth 3. Contact Number 4. Professional Qualification 5. Current Designation 6. Years With Present Employer		
Experience Summary Relevant to this Project			
Professional Experience over the last 10 Years *(in chronological order)*	From	To	Company/Project/Position/Relevant Technical and Management Experience

Form 10: Format for Providing Environment, Health and Safety Management Plan

The Bidder shall furnish a brief write-up of the following points:

1. Plan for Mitigation of Pollution during Project Execution work
2. Measures to manage hazardous waste if any during the project execution
3. Plan for Health and safety in and around the workplace to be followed during project execution
4. Emergency preparedness plan
5. Measures for Fire safety.
6. Measures for Health and safety of workers.
7. Envoi mental clearance from authorizes authority.

Form 11: Format for Letter of Acceptance (LoA)

LETTER OF ACCEPTANCE (LOA)

(On the Letter Head of the Authority)

Date:

M/s. _____

(Name and address of the contractor)

Subject: _____

(Name of the work as appearing in the bid for the work)

Dear Sir (s)/ Madam(s),

Your bid for the work mentioned above has been accepted on behalf of the *(Name of Authority*), at your bided offer as per scope of work given therein. You are requested to submit within 21 (Twenty-One) days from the date of issue of this letter:

(i) The performance security/performance guarantee of Rs. _____ (in figures) Rupees _____ (in words only). The performance security shall be in the form of bank guarantee of any nationalized / schedule commercial bank.

(ii) Sign the Contract Agreement.

Please note that the time allowed for carrying out the work as entered in the bid is 6 months including rainy season, shall be reckoned from the date of signing the contract agreement or issuance of Consent to Establish to the project whichever is later.

Signing the contract agreement shall be reckoned as intimation to commencement of work and no separate letter for commencement of work is required. Therefore, after signing of the agreement, you are directed to contact Authority/Engineer-in-charge for taking the possession of site and necessary instructions to start the work.

Yours faithfully,

Form 12: Format for Performance Bank Guarantee

To:
_____ *[the Authority]* _____ *[address of the Authority]* WHEREAS _____ *[name and address of Contractor]*(hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____dated _____ to execute _____ *[name of Contract and brief description of Works]* (hereinafter called "the Contract");
AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified there in as security for compliance with his obligations in accordance with the Contract; AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ *[amount of guarantee]* _____ *[in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified there in. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. This guarantee shall be valid until …… (*date of Validity as per the Bid Document)*

Signature and seal of the guarantor _____
Name of Bank _____
Address _____
Date _____

Form 13: Format for Retention Security Deposit Bank Guarantee (SBG)

To: _____ [the Authority]_____ [address of the Authority]WHEREAS _____ [name and address of Contractor](hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract Clause No. 7.2 that the Contractor shall furnish you with a Security Bank Guarantee (SBG) by a recognized bank for the sum specified there in as security for compliance with his obligations in accordance with the Contract;

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

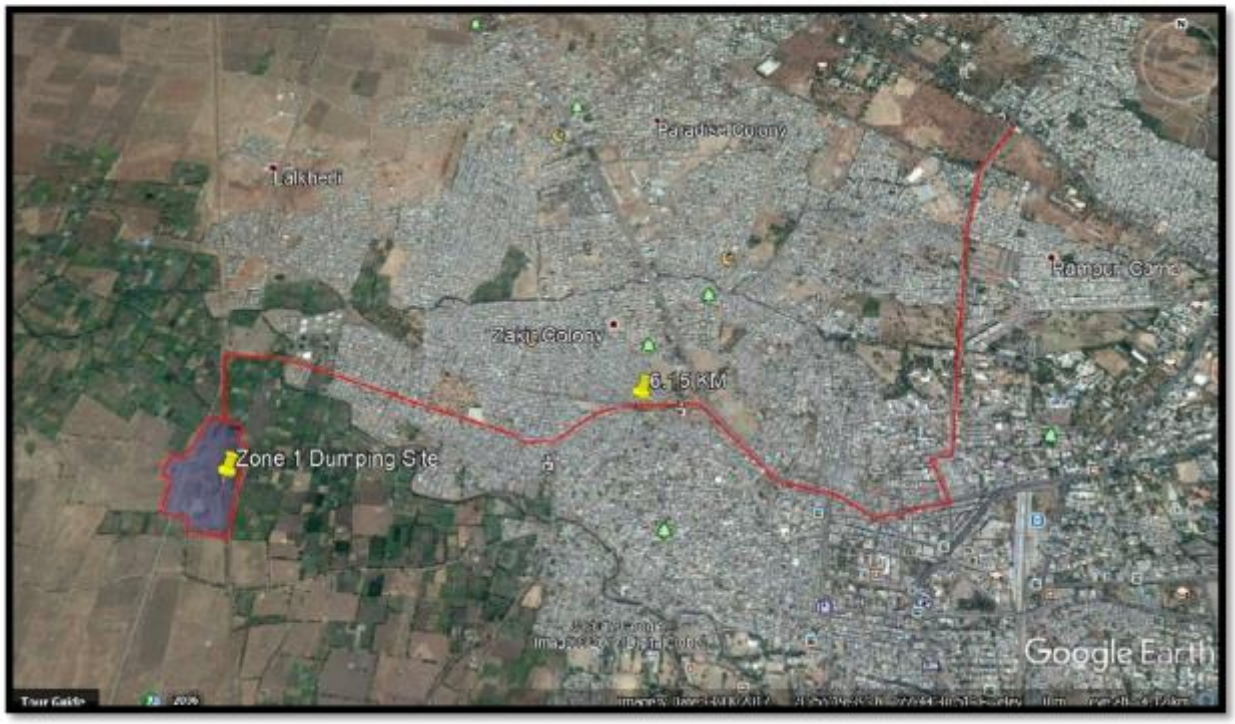
NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ [amount of guarantee] _____ [in words], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified there in. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.
This guarantee shall be valid until _____days *(Validity Period as per sub-Clause 7.2.4*)

Signature and seal of the guarantor _____
Name of Bank _____
Address _____
Date _____

Appendix-1

1. Zone no. 1

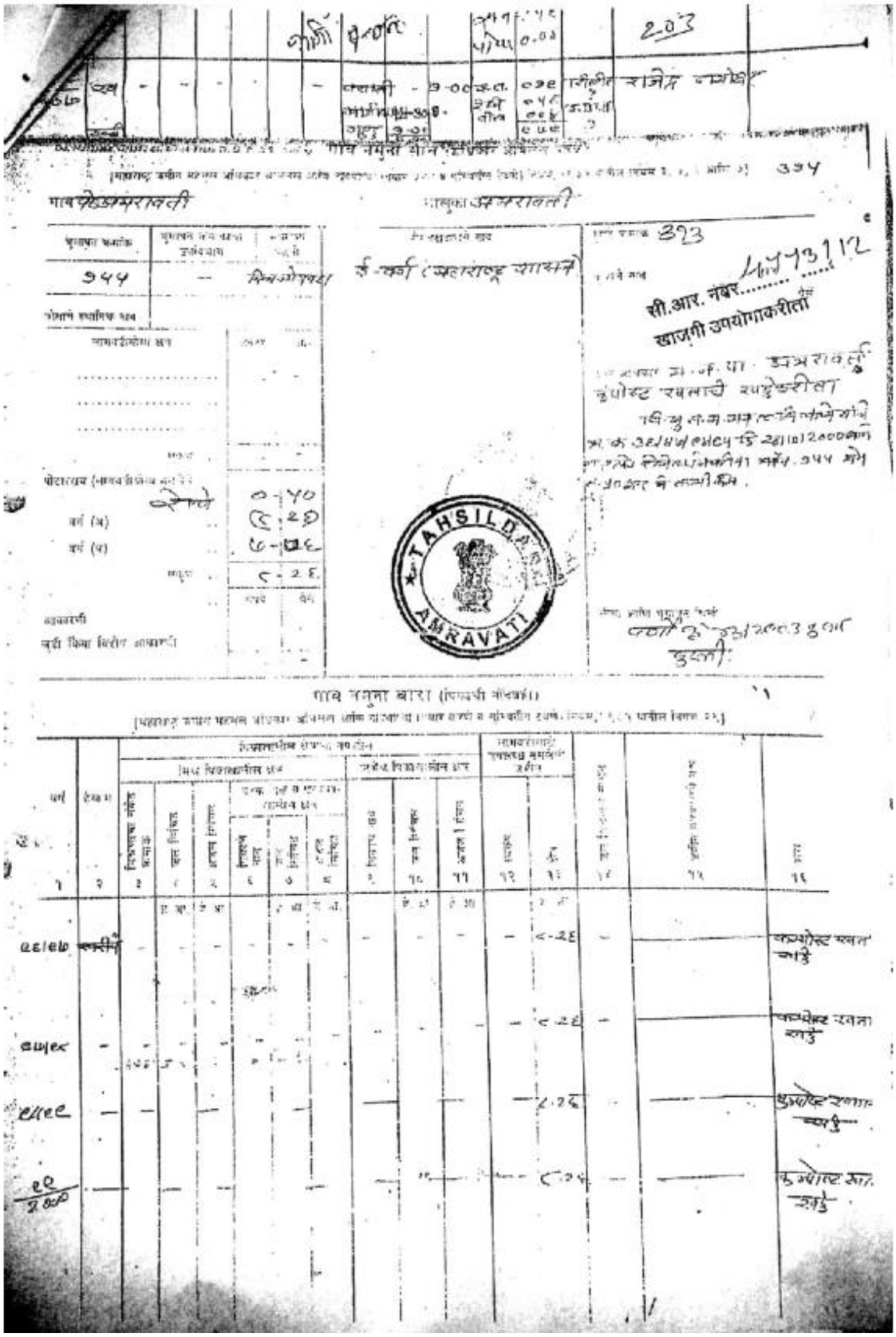
1.1 location of Dumping site



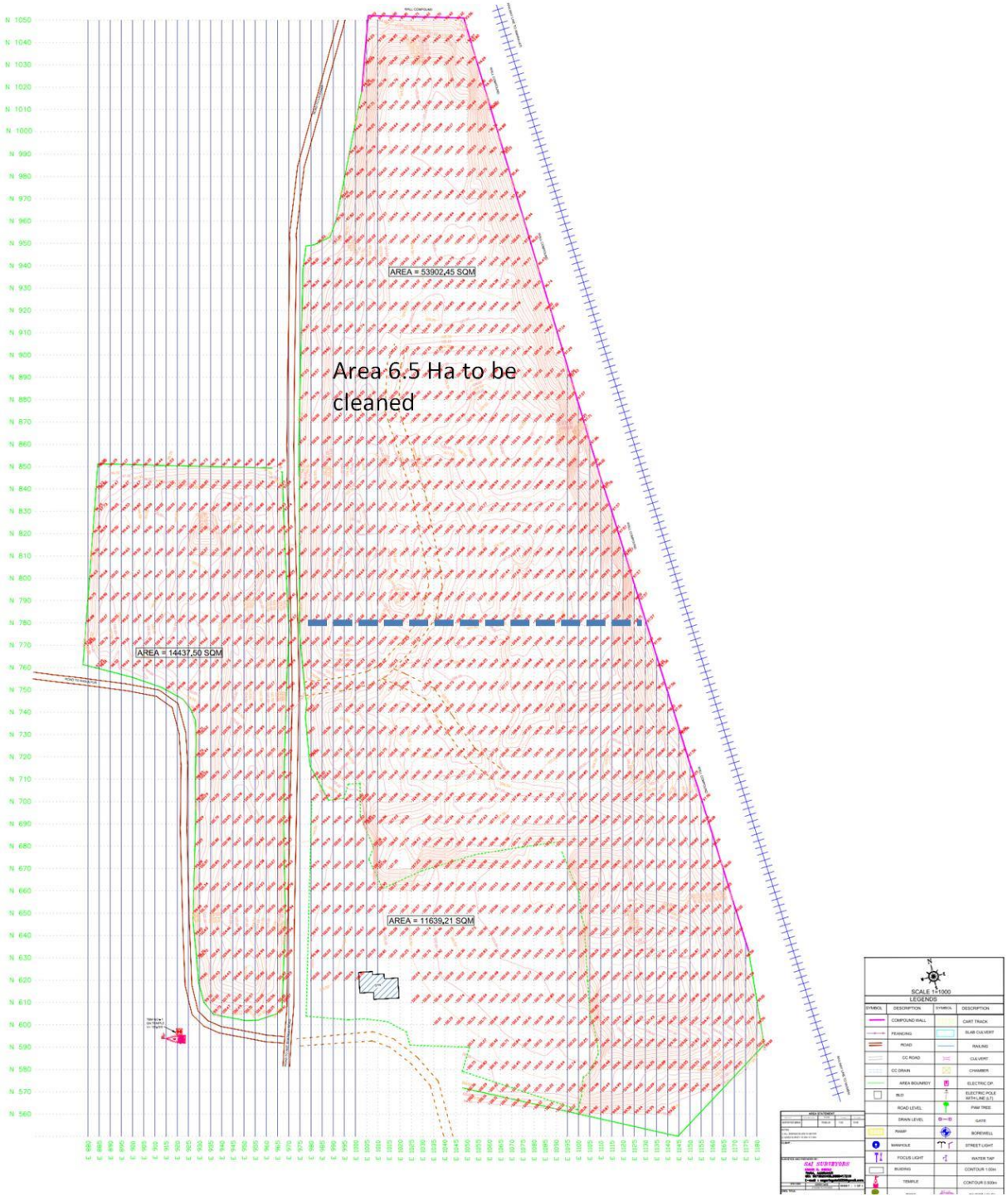
1.2 Boundaries of Dumping Site

Appendix-2

GAMBHIRPUR
25
21
26
HONEWADA
BURIAL GROUND
JLPUR
Railway LINE
156
COMPOST DEPOT
155
154
163
153
PETH AMRAVATI
1:10,000


TAHSIL
AMRAVATI

Appendix-3


AREA = 53902.45 SQM
Area 6.5 Ha to be cleaned
AREA = 14437.50 SQM
AREA = 11639.21 SQM
SCALE 1:1000
LEGENDS

Appendix-4

Plant and machineries to be used by contractor for conducting bio-remeditiation and biomining of legacy waste.

1. Excavators (Mechanical/hydraulic) for formation of hips/trenches
2. Bio-culture (appropriate) for spraying over legacy waste
3. Pipe sprays provision or any other appropriate provision for spraying bio-culture.
4. Power screens with provision of detailed screen sizes.
5. Trommel screens with sizes 100 mm/80mm, 35 mm, 16 mm, 4 mm or any other standard size as per guidelines
6. Ballistic separators if required.
7. Plastic segregation machine as required.
8. Shredders and bailing units as required.
9. Tippers and trucks for transportation of RDF, biosolids and inert.
10. Any other appropriate equipment, machinery, vehicles as required to execute the project successfully and to follow standards, guidelines and norms as given by CPCB, NGT, SWM Rules 2016 and CPHEEO Manual for MSW, 2016

Appendix-5

Guidelines, Rules to follow while conducting bio-remediation and biomining of legacy waste

1. SWM Rules 2016
2. Plastic Waste Management Rules, 2016 as amended 2018
3. CPHEEO Manual on MSW, 2016
4. Guidelines for disposal of legacy waste (old municipal waste) from CPCB, Feb 2019
5. Guidelines for co-processing of plastic waste in cement kilns, CPCB, May 2017.
6. Any other guidelines as given by department or ministry under GoI, Govt Maharashtra, or directions as given by Hon'ble NGT

Volume II- Draft Contract Agreement Format

Draft Contract Agreement Format

This agreement, made the_____day of 20_____ ,between the Amravati Municipal Corporation [name and address of the Amravati Municipal Corporation] (Hereinafter called as "the Authority") of the one-part M/S _____and[name and address of contractor] (hereinafter called "the Contractor") of the second part.

Whereas the Authority is desirous that the Contractor execute _____ [name and identification number of Contract] (hereinafter called "the Works") and the Authority has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects there in, at a contract price of INR _____.

NOW THIS AGREEMENT WITNESSETH as follows:

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

2. In consideration of the payments to be made by the Authority to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Authority to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.

3. The Authority hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein 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.

4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
   i. Letter of Acceptance;
   ii. Notice Inviting Bid;
   iii. Bid Document issued by the Amravati Municipal Corporation and its subsequent amendments and corrigendum
   iv. Contractor's Bid;
   v. Conditions of contract (including Special Conditions of Contract);
   vi. Specifications;
   vii. Drawings and Site Map;
   viii. Any other document listed in the Condition of Contract forming part of the contract.

In witness whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of_____ was here unto affixed in the presence of:

Signed, Sealed and Delivered by the said

In the presence of:

Binding Signature of Authority

Binding Signature of Contractor (To be signed by the Authorized Signatory of the Bidder)

**********END OF DRAFT CONTRACT AGREEMENT**********

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Conditions of Contract

A. General Conditions of Contract (GCC)

1. Definitions

"Authority" means The Commissioner, of the Amravati Municipal Authority who will execute the contract agreement with the Contractor to carry out the work. The Authority may delegate any or all functions to a person or body nominated by him for specified functions. The word Authority/Government/Department wherever used denotes the Authority.

"Completion" means completion of the work, as certified by the Engineer-in-Charge, in accordance with provisions of agreement.

"Contract" means the Contract between the Authority and the Contractor to execute, complete and/or maintain the work. Agreement is synonym of Contract and carries the same meaning wherever used.

"Contractor "means a person, or a legal entity whose bid to carry out the work has been accepted by the Authority.

"Contractor's bid" means the completed bid document submitted by the Contractor to the Authority.

"Contract amount" means the amount of contract worked out on the basis of accepted bid.

"Completion of work" means completion of the entire contracted work. Exhaustion of quantity of any particular item mentioned in the bid document shall not imply completion of work or any component thereof.

"Day" means the calendar day.

"Defect" means any part of the work not completed in accordance with the specifications included in the contract.

"Drawings" means drawings including calculations and other information provided or approved by the Engineer-in-Charge.

"Department" means the Amravati Municipal Corporation or as specified.

"Engineer in charge" means the person nominated by the Authority for overall supervision and coordination of the work, provide approval to work plan and work schedules submitted by the contractor for commencement of the work, approval of drawings and specification, certification of the work executed by the contractor and invoice raised by the contractor. The Word "Engineer" wherever used, other than mentioned or specified, means the Engineer-in—charge

"Equipment" means the Contractor's machinery and vehicles brought temporarily to the Site for execution of work at his own cost.

"Government" means the Government of Maharashtra or the Government of India as the case may be.

"In Writing" means communicated in written form and delivered against receipt.

"Material" means all supplies including consumables used by the Contractor for incorporation in the work.

"Stipulated date of completion" means the date on which the Contractor is required to complete the work. The stipulated date is specified in the Contract Data.

"Specification" means the specification of the work included in the Contract and any modification or addition made or approved by the Engineer-in-Charge.

"Start Date" means the date 14 days after the signing of agreement for the work. However, the Authority may extend this time limit by another 14 days, as and when required.

"Sub-Contractor" means a person or corporate body who has a Contract (duly authorized by the Authority) with the Contractor to carry out a part of the work under the Contract.

"Temporary Work" means work designed, constructed, installed, and removed by the Contractor that are needed for the work.

"Tender/Bid/Bid Document/Request for Proposal (RFP), Tenderer/Bidder" are the synonyms and carry the same meaning where ever used.

"Variation" means any change in the work which is instructed or approved as variation under this contract.

"Work" the expression **"work"** or **"works" or "Project"** where used in these conditions shall unless there be something either in the subject or context repugnant to such work, be construed and taken to mean the work by virtue of contract, contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional.

"Work Plan" means the implementation plan, including phasing of works, physical completion milestones and other such details that the Authority shall seek from time to time with respect to tracking progress of the works.

2. Interpretations

In the contract, except where the context requires otherwise

2.1. Words indicating one gender include all genders;

2.2. Words indicating the singular also include the plural and vice versa;

2.3. Provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;

2.4. Written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record; Words have their normal meaning under the language of the Contract unless specifically defined.

2.5. The Engineer will provide instructions clarifying queries about the Conditions of Contract.

3. Documents Forming Part of Contract:

3.1. Notice Inviting Bid with all amendments.

3.2. Tender Document (Tender Notice No. –)with all amendments and corrigendum

3.3. Contract Agreement

3.4. Conditions of Contract:

a) Part A: General Conditions of Contract and Contract Data with all Annexures;

b) Part B: Special Conditions of Contract.

3.5. Specifications;

3.6. Drawings and site map

3.7. Technical and Financial Bid submitted by the Contractor

3.8. Any other document (s), as specified or important to execute this contract.

4. Language and Law

The language of the Contract and the law governing the Contract are stated in these conditions of contract.

5. Communications

All certificates, notice or instruction to be given to the Contractor by Authority/Engineer shall be sent on the address or contact details given by the Contractor in Form 2 of his submitted Bid. The address and contract details for communication with the Authority/Engineer shall be as per the details given in bid

data sheet of the RFP Document or as specified in written from time to time. Communication between parties that are referred to in the conditions shall be in writing. The notice sent by facsimile (fax) or other electronic means (email) shall also be effective on confirmation of the transmission. The notice sent by registered post or speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service. In case of any change in address for communication, the same shall be immediately notified to Engineer-in-Charge.

6. Engineer's Decisions

6.1. Except where otherwise specifically stated, the Engineer under the guidance of The Commissioner, Municipal Corporation, and Amravati will decide contractual matters between the Authority and the Contractor in the role representing the Authority.

6.2. The Engineer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

7. Subcontracting

The Contractor may subcontract with the approval of the authority but may not assign the Contract without the approval of the Authority in writing. Subcontracting does not alter the Contractor's obligations.

8. Personnel

8.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel in the Form 9 (B) of his submitted technical bid to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

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

9. Force Majeure

9.1. The term "Force Majeure" means an exceptional event or circumstance:

a) Which is beyond a party's control;

b) Which such party could not reasonably have provided against before entering into the contract;

c) Which, having arisen, such party could not reasonably have avoided or overcome, and;

d) Which is not substantially attributed to the other Party

9.2. Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) in the sub-clause 9.1 above, are satisfied:

(i) War, hostilities (whether war be declared or not), invasion, act of foreign enemies);

(ii) Rebellion, terrorism, sabotage by persons other than the contractor's Personnel, revolution, insurrection, military or usurped power, or civil war;

(iii) Riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel;

(iv) Munitions of war, explosive materials, ionizing radiation or contamination by radio activity, except ass may be attributed to the Contractor's use of such munitions, explosives, radiation or radio activity, and;

(v) Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

9.3. In the event of either party being rendered unable by force majeure to perform any duty or discharge any responsibility arising out of the contract, the relative obligation of the party affected by such force majeure shall upon notification to the other party be suspended for the period during which force majeure event lasts. The cost and loss sustained by either party shall be borne by respective parties.

9.4. For the period of extension granted to the Contractor due to Force Majeure the penalty clause shall not apply. It is clarified that the clause '9' shall not give eligibility for any adjustment or escalation in contract amount.

9.5. The time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such cause lasts. Should the delay caused by force majeure exceed six months, the parties to the contract shall be at liberty to foreclose the contract after holding mutual discussions.

10. Contractor's Risks

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

10.2. All risks and consequences arising from the inaccuracies or falseness of the documents and/or information submitted by the contractor shall be the responsibility of the Contractor alone, notwithstanding the fact that designs/drawings or other documents have been approved by the department.

11. Safety

The Contractor shall be responsible for the safety of all activities on the Site. The contractor shall comply to the safety guidelines and best industrial practice to implement safety at work place.

12. Liability for Accidents to Person

The contractor shall be deemed to have indemnified and saved harmless the Government and/or the Authority, against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the contractor or his subcontractor for the works whether under the General law or under workman's compensation Act, or any other statute in force at the time of dealing with the question of the liability of employees for the injuries suffered by employees and to have taken steps properly to ensure against any claim there under.

13. Contractor to Complete the Works

13.1. The Contractor shall execute the Works in accordance with the Milestone, Work plan, work schedule, Specifications, Drawings and site map as specified in the Bid Document. In the case of any class of work for which there is no such specification as is mentioned in the Tender Document, such work shall be carried out in accordance with the instructions and requirement of the Engineer-in-charge.

13.2. The contractor shall supply and take upon himself and at his cost the entire responsibility of the sufficiency of all the means and resources used for the fulfillment of this contract whether such

means may or may not be specified in the scope of work, Bid Document, contract agreement or recommended by the Engineer-in-charge.

14. Discoveries

Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Authority/Government. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

15. Dispute Resolution System

15.1. No dispute can be raised except before the Authority in writing giving full description and grounds of Dispute. It is clarified that merely recording protest while accepting measurement and/or payment shall not be taken as raising a dispute.

15.2. No issue of dispute can be raised after 45 days of its occurrence. Any dispute raised after expiry of 45 days of its first occurrence shall not be entertained and the Authority shall not be liable for claims arising out of such disputes.

15.3. The Authority shall decide the matter within 45 days.

15.4. Appeal against the order of the Authority can be preferred within 30 days to the court of Amravati.

15.5. The contractor shall have to continue execution of the works with due diligence notwithstanding pendency of a dispute before any authority or forum.

16. Approval by the Engineer

16.1. The Contractor shall submit the work plan, work schedule, Specifications and Drawings for the commencement of the proposed work/part of proposed work/milestone of proposed work, before the commencement of such works. The contractor shall proceed for the commencement of such work only after the approval of the Engineer-in-charge.

16.2. The Contractor shall be responsible for design of the proposed Works.

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

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

17. Time Frame for completion of works

17.1. The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the milestone achievement schedule set out in the Bid Document as updated time to time by the approval of the Engineer-in-charge, and complete them by the Intended Completion Date.

17.2. The Engineer's approval of the work schedule shall not alter the Contractor's obligations

18. Extension of Time

18.1. If the Contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Engineer-in-charge, on account of which he desires such extension. Engineer-in-charge shall forward the aforesaid application to the competent authority as prescribed.

18.2. The Authority shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of grounds of

having unavoidable hindrance in execution of work or on any other such grounds, and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

19. Liquidated Damages

19.1. The Contractor shall pay liquidated damages to the Authority at the rate per day stated in the sub-clause 7.2 of the RFP document, for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data) after considering the extension of time as specified in clause 17 of this GCC. The total amount of liquidated damages shall not exceed the amount defined in the sub-clause 7.2of the RFP document. The Authority will deduct the liquidated damages from payments due to the Contractor.

19.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Authority shall correct any overpayment of liquidated damages by the Contractor by adjusting such overpayment from the next payment due to the contractor or final settlement of payments with the contractor as the case may be. The contractor shall not pay any interest on any such amount of overpayment of liquidity damages.

19.3. Payment of liquidated damages does not affect the Contractor's liabilities.

19.4. Contractor should not claim for escalation bill any more.

20. Contract amount

20.1. No interest shall be payable to the Contractor on any payment due or awarded by the authority.

20.2. The rates quoted by the Contractor shall be deemed to be inclusive of GST and other levies, duties, cess, toll, taxes of Central and State Governments, local bodies and authorities.

21. Quality Control

21.1. Identifying Defects

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

21.1.2 The contractor shall permit the Authority's Technical auditor to check the contractor's work and notify the Engineer and Contractor of any defects that are found. Such a check shall not affect the Contractor's or the Engineer's responsibility as defined in the Contract Agreement.

21.2. Correction of Defects

21.1.3 The Engineer shall give notice to the Contractor of any Defects, in writing.

21.1.4 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time and satisfaction level of the Engineer as specified in the Engineer's notice.

21.1.5 If the Contractor has not corrected a Defect, within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount.

22. Termination of Contract

22.1. The Authority or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. Fundamental breaches of Contract include, but shall not be limited to the following:

(a) Abandons the works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the contract;

(b) The Engineer-in-charge instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 60 days;

(c) The Authority or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(d) The Contractor without reasonable excuse fails to comply with the notice to correct a particular defect within a reasonable period of time;

(e) the Contractor does not maintain a valid instrument of financial Security, as prescribed;

(f) the Contractor has delayed the completion of the Works by such duration for which the maximum amount of liquidated damages is recoverable;

(g) if the Contractor, in judgmental of the engineer in charge has engaged in corrupt or fraudulent practices in competing for or in executing the contract, the definition of corrupt and fraudulent practice shall be as defined in clause 5.9 of the RFP document;

(h) the contractor fails to perform in the manner as specified in the Contract agreement, bid document, bid submitted by him or recommendation by the engineer-in charge;

(i) The contractor (in case of Consortium/joint venture) has modified the composition of the Consortium/joint venture and/or the responsibility of each member of the Consortium/joint venture from what is stated in Consortium/joint venture agreement without prior approval of the Authority.

22.2. Notwithstanding the above, the Authority may terminate the Contract for convenience.

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

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

23. Payment upon Termination

23.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less adjusted advance payments (on pro-rated basis) received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as per the percentage of milestone achievement. Additional Liquidated Damages shall not apply. If the total amount due to the Authority exceeds any payment due to the Contractor the difference shall be a debt payable to the Authority.

23.2. If the Contract is terminated at the Authority's convenience or because of a fundamental breach of Contract by the Authority, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

24. Performance Security

The Contractor shall have to submit performance security as set out in the clause 5.7 of the tender document. The contractor shall have to ensure that such performance security remains valid for the period as specified in the tender document.

25. Payment of contract Amount

25.1. Payment of the 'contract amount' shall be made to the contractor in accordance to the provision as set out in the clause 7 of the RFP document.

25.2. No advance payment shall be made to the contractor in any case.

25.3. The invoice for the payment shall be raised by the contractor, after the certification of the work completed by the contractor and the invoice by the Engineer-in-charge

25.4. The payment shall be made through Demand Draft/Cheque/NEFT/RTGS. No payment shall be made in cash

25.5. All payment shall be made in Indian currencies.

26. Completion Certificate

26.1. A provisional completion certificate in the prescribed format as given in Annexure I of this condition of contract shall be issued by the Engineer in charge after physical completion of the work.

26.2. After final payment to the contractor, a final completion certificate in the prescribed format as given in Annexure II of this condition of contract shall be issued by the Engineer in charge.

26.3. The Authority shall take over the Site and the Works within seven days of the issue of the provisional Completion certificate.

**********END OF GCC**********

B. Special Conditions of Contract (SCC)

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

1. Role of Parties to the Contract

1.1. Role of the Authority

The Authority shall play the following role in this project

(i) The Authority shall handover the Project Site and on an as-is-where-is basis, free from encumbrances, for the execution of the Project. The Authority will not provide any equipment or vehicle for the project. All equipment and machinery required by the successful contractor shall be arranged by the contractor at his own cost.

(ii) The Authority shall earmark the land (to be reclaimed and to be used for segregation and processing of excavated mixed MSW) and give possession to the Contractor within one week of the execution of the Contract Agreement.

(iii) The Authority shall provide access to the land earmarked to the contractor for implementing the project.

(iv) The Authority shall provide necessary assistance in getting clearances, permits, approvals, authorizations, and no objection certificates, at its own cost, which are required by the contractor to execute the project and obtain Water and Sewage Connection and Power Connection.

(v) The Authority shall permit the contractor to carry out the project till the conclusion of the Contract Period of as mentioned in tender document or any extension thereof.

1.2. Role of the Contractor

(i) The contractor shall execute and complete the project in accordance with the provisions set out in the tender document, *scope of work as mentioned in RFP*, the Conditions of contract and the contract agreement.

(ii) The contractor shall have no right or title or leasehold right on the land earmarked to them. The Land earmarked to the Bidder shall not be used for any other purpose other than for the project purpose.

(iii) The contractor is entitled to switching over to the technologies according to the viability of the implementation of the project commercially subject to prior submission of proposal for such technology switch describing the details of such technology and advantage of using the technology and such proposal being approved by the engineer-in-charge.

(iv) The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Authority at any point of time.

2. Compliance to Law, Rules and Regulations

The contractor shall abide with all the rules and regulations of the Government of India, Government of Maharashtra, Local Governments or any other Government bodies that has direct or indirect incidence on the project, in addition to the rules and regulations mentioned below.

The Contractor shall keep the Authority indemnified in case any action is taken against the Authority by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Authority is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Authority shall have the right to deduct any money due to the Contractor including his amount of performance security. The Authority/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Authority.

The contractor shall perform his obligations for the completion of the works under the umbrella of the below given rules and regulations.

2.1. Compliance with Labour Regulations

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority.

2.2. Protection of Environment

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all the terms and conditions prescribed in the Environmental Clearance/ Consent to Establish/Consent to operate issued to the project, existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

The contractor shall commence the project activities as per the rules, regulations and guidelines as set forward by the Solid Waste Management, 2016 and its subsequent amendments thereof, Construction and Demolition Waste Management Rules 2016 and its subsequent amendment thereof, Plastic Waste Management Rules 2016 and its subsequent amendment thereof, Bio-Medical Waste management rules 2016 and its subsequent amendment thereof, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and its subsequent amendment thereof, E-waste management rules 2016 and its subsequent amendment thereof, Environment Protection Act 1986 and its subsequent amendment thereof. Contractors to note that this is the minimum criteria required for the commencement of this work and the contractor will practice the best possible method to protect the Environment.

**********END OF SCC**********

Annexure I: Provisional Completion Certificate

Name of Work:

Agreement No. _____ Date _____

Amount of Contract Rs _____

Quantity of Waste Processed _____ m^3.

Certified that the above-mentioned work was provisionally completed on ..... (Date) and taken over on .....(Date) and that I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Engineer-in-Charge

Annexure II: Final Completion Certificate

Name of Work:

Agreement No. _____ Date: _____

Name of Agency: _____

Certified that the above-mentioned work was physically completed on _____ (date) and taken over on_____(date) . Agreement amount Rs.__

Final amount paid to contractor Rs. _____ .

Quantity of Waste Processed _____ m^3

Incumbency of officers for the work

I have satisfied myself to best of my ability that the work has been done properly.

Date of Issue:_____

Engineer in Charge

-TRUE COPY-

ANNEXURE A-32

AMRAVATI MUNICIPAL CORPORATION, AMRAVATI

OW. N0./AMC/commissioner/BV/55/2021

Date: 06/04/2021.

Subject: Pre-Bid meeting in respect of appointment of contractor for Scientific Dumpsite Land Reclamation through bio-mining, Resource Recovery and Scientific Reject Disposal, Sukali Compost Depot Amravati.

Reference:

1) Order dated 10/03/2021 of Commissioner Amravati Municipal Corporation.

2) Letter OW.N0./AMC/BV/UP/919/2021 Date: 25/03/2021.

3) Pre-Tender meting dated 31/03/2021

Respected Sir,

As referred Commissioner Amravati Municipal Corporation has vide its order dated 10/03/2021 directed to appoint contractor for clearing land at Sukali Compost Depot by Bio-mining on old and new waste. Later on Tender Notice No. 51/21 Dated 12/03/2021 is published. For the purpose, pre-tender online meeting and offline meetings are held on 31/03/2021. The tender submission date is 08/04/2021 and tender opening date is 09/04/2021.

Today Wednesday, date 31/03/2021 at about 11.00 in the morning in Hall next chamber of Commissioner, following officer and Bidder are present in Pre-Bid meeting for discussion on published Tender.

Commissioner- Shri Prashant Rode

Dy. Commissioner- Ravi Pawar

Pollution Control Officer- Shri Mahesh Deshmukh

Medical Officer- ku. Sima Naitam

Chief Auditor – Shri Hemant Thakre

City Engineer - Shri Suhas Chavan

Dy. Engineer - Shri Madhukar Raut

Asst. Engineer - Shri Laxman Pawade

Representatives of Bijson Innovation Pvt Ltd

Representatives of Hind Agro and chemicals

Representatives of Afquen Consultant

Representatives of I.I.W.M. Shri Ganesh Anasane

Representatives of Samarth Soft tech Solution

Representatives of Ms. Sadguru Bagde Baba Enterprises

Representatives of Sirum gold E-gradation

Representatives of Ganga Trading Company

Representatives of V.V.G. India ltd Pune

Representatives of Supreme Gold Irrigation

Representatives of Zigma Global Environ Solution

Representatives of S.M.S. Ltd Nagpur

Representatives of Green Whiro Infratech Pvt. Ltd.

In said meeting some representatives had made suggestion and told about difficulties in respect of RPF and some representatives send it online through Email. That after discussion, Chart of Common set of deviation is prepared containing the points raised by the Bidders in meeting, which is as under:

Sr. No.	Provision of bid document	Queries Clarification	Modification to suggest by bidder	Modification to tender documents by AMC	Remark
1. ENGITOR MACHINES & Equipments llp, Wagholi					
1.	2.2.1 (i)	Joint venture	Please consider the bidder having technical experience as the technical partner and lead member in the joint venture	As per tender document.	
2.	2.2.1 (i)	Joint venture	Please allow technical partner (leads member) and financial partner (Non-technical) to participate as Joint Venture in bidding Process.	As per tender document.	
3.	2.3.1	Successfully handled similar works during last seven years prior to the last day of maonth previous to publication of this bid should be either of the following a. Three similar completed works costing not less than the amount equal to 40% of the estimated cost. Or b. Two similar completed works costing not less than the amount equal to 50% of the estimated cost. or c. One similar completed works costing not less than the amount equal to 80% of the estimated cost.	Please consider the cumulative waste processing experience (Bio mining projects) of 1, 20, 000 cubic meters for fair competition.	As per tender document. And added point in clause 2.3.1 OR d) as bidder must have experience minimum of legacy waste biomining upto 1,50,000 Cum quantity cumulative of maximum of two projects in last 2 years (2018-19 and 2019-20) successfully handled.	

4.	2.3.2 (i)	Minimum average turnover of INR 7.5 Cr. in the preceding three financial years (2017-18, 2018-19, 2019-20) from the due date of submission of this bid;	Please consider cumulative turnover of both the partners participating as a joint venture	Consider Minimum average turnover INR 5.0 Cr. in the preceding three financial years (2017-18, 2018-19, 2019-20) from the due date of submission of this bid.	
5.	2.3.2.(ii)	Shall have availability of Liquid assets and/or availability of credit facilities of no less than INR 5.00 Cr. at the time of submission of this bid. The bidder shall furnish Certificate for availability of Liquid asset dully certified from its statuary auditor.	Please consider availability of liquid assets and/or availability of credit facilities of no less than INR 5.0 Cr of lead member (technical Partner) or finanacial partner (Non-technical partner) or cumulative for both the partners of joint venture.	As per tender document.	
6.	2.3.2 (iii)	Shall have positive net worth of minimum INR 1.53 Cr in the preceding three financial year (2017-18,2018-19,2019-20) from the due date of submission of this bid	Please consider positive net worth of minimum INR 1.53 Cr. In the preceeding three financial year (2017-18, 2018-19, 2019-20) of lead member (technical partner) or financial partner (Non-technical partner) or cumulative for both the partners of joint venture.	As per tender document.	
2. Bijson Innovations Pvt. Ltd, Jaipur					
7.		Please include the benefits given under the start up policy of central and maharastra state government in public		As per tender document bidder must have technical	

		procurement, so as to facilitate the new innovative technology in the field of biotechnology.		experience.	
8.		Determination of quantum of work completed should be on the basis of cubic meter of legacy waste treated instead of ”area of land reclaimed”		As per tender document	
9.		Please clarify about the “daily waste” coming to the site during the opration of biomining. How it will be treated and will it be paid for?		Daily waste coming to said site is about 250MTPD this will continue to dump till 3 months from date of issue of work order.	
3. Surya Energies, Nanded					
10	2.2.1 (i)	Joint venture	Please consider the bidder having technical experience as the technical partner and lead member in the joint venture	As per tender document	
11	2.2.1 (i)	Joint venture	Please allow technical partner (leads member) and financial partner (Non-technical) to participate as Joint Venture in bidding Process.	As per tender document	
12	2.3.1	Successfully handled similar works during last seven years prior to the last day of maonth previous to publication of this bid should be either of the following d. Three similar completed works costing not less than the amount equal to 40% of the estimated cost. Or e. Two similar completed works costing not less than the amount equal to	Please consider the cumulative waste processing experience (Bio mining projects) of 1, 20, 000 cubic meters for fair competition.	As per tender document. And added point in clause 2.3.1 OR d) as bidder must have experience minimum of legacy waste biomining upto 1,50,000 Cum quantity cumulative of maximum of two projects in last 2 years (2018-19 and 2019-20) successfully handled.	

		50% of the estimated cost. or f. One similar completed works costing not less than the amount equal to 80% of the estimated cost.			
13	2.3.2 (i)	Minimum average turnover of INR 7.5 Cr. in the preceding three financial years (2017-18, 2018-19, 2019-20) from the due date of submission of this bid;	Please consider cumulative turnover of both the partners participating as a joint venture	Consider Minimum average turnover INR 5.0 Cr. in the preceding three financial years (2017-18, 2018-19, 2019-20) from the due date of submission of this bid.	
14	2.3.2.(ii)	Shall have availability of Liquid assets and/ or availability of credit facilities of no less than INR 5.00 Cr. at the time of submission of this bid. The bidder shall furnish Certificate for availability of Liquid asset dully certified from its statuary auditor.	Please consider availability of liquid assets and/or availability of credit facilities of no less than INR 5.0 Cr of lead member (technical Partner) or finanacial partner (Non-technical partner) or cumulative for both the partners of joint venture.	As per tender document	
15	***2.3.2 (iii)***	Shall have positive net worth of minimum INR 1.53 Cr in the preceding three financial year (2017-18,2018-19,2019-20) from the due date of submission of this bid	Please consider positive net worth of minimum INR 1.53 Cr. In the preceeding three financial year (2017-18, 2018-19, 2019-20) of lead member (technical partner) or financial partner (Non-technical partner) or	As per tender document	

			cumulative for both the partners of joint venture.		
4.	***SMS Limited, Nagpur***				
16	2.3.1	Successfully handled similar works during last seven years prior to the last day of maonth previous to a publication of this bid should be either of the following g. Three similar completed works costing not less than the amount equal to 40% of the estimated cost. Or h. Two similar completed works costing not less than the amount equal to 50% of the estimated cost. or i. One similar completed works costing not less than the amount equal to 80% of the estimated cost. *Note: a. similar works means works regarding execution of scientific dumpsite /Reclamation/ Bio-mining of legacy waste.*	A bare look at the above qualification criteria give us impression that the other types of waste management experience which involve process and technologies are not included from the qualification criteria under 2.3.1 also in the eligibility criteria, the Hazardous waste experience has not been consider for pre qualification requirement. Further the BOOT type of project is continuous operation projects in which completion certificate will get after BOOT period. Here we would like to submit that other smart city (Chandigarh, Jabalpur) and Municipal corporation (Mumabi, surat, pune) tender,	If BOOT projects is under execution period mere certificate issued by competent authority of parent organization/ agency about successful running of the said project is sufficient and the experience of the same will be counted.	

			where the scope of work and capacity is similar/more to proposed work has been consider the experience of Hazardous waste and ongoing projects experience for the pre-qualification purpose. The details of the projects and prebid reply is attached here as annexure-1 Also would like to share following. <u>Chandigarh Smart City: Biomining tender: 5lacs Mt.</u> "Bidder shall have experience of scientific processing of legacy waste/MSW/Hazardous waste by using composting/treatment or RDF(Refuse Derived Fuel) technology/waste to energy/treatment i) with minimum 200TPD capacity of one single plant or ii) two plants with minimum 150TPD capacity each or		

			iii) three plants of 100TPD capacity each completed/operated in any of the year during the last seven years in any government/ semi government organizations/ public sector undertakings or private organizations. Bidder shall have scientifically processed at least 125000MT of legacy waste/MSW/ Hazardous waste by using composting/treatment or RDF technology/waste to engery during last seven years. Technical experience in and outside India shall be considered for the projects" Municipal Corporation of greater Mumbai: Biomining tender: 70LacsMT. Bidder/JV shall have composted/treated/sanitary land field/Securely land field total 120000 (Aggregate)	No Special condition like experience in Hazardous waste and legacy waste are included in tender document. This tender is of biomining so experience related biomining is considered which is certified by concern authority only.	

			metric tons or cubic meters of waste (MSW/Hazardous waste) during last 15 years before date of publication of the tender in any Government/ Semi government organization /public sector Undertakings or Private Organisations in India or abroad Therefore, keeping in view above, for larger participation in bid, we request you for a very minor modification of the 2.3.1 pre-qualification criteria (Technical Capacity) requirement as below Successfully handled similar works during last seven years prior to the last day of maonth previous to a publication of this bid should be either of the following a. Three similar completed/Ongoing works costing not less than the		

			amount equal to 40% of the estimated cost. Or b. Two similar completed/Ongoing works costing not less than the amount equal to 50% of the estimated cost. or c. One similar completed/Ongoing works costing not less than the amount equal to 80% of the estimated cost. *Note: a. similar works means works regarding execution of scientific dumpsite /Reclamation/ Bio-mining of legacy waste/Hazardous waste treatment facility.*		
17	Page 43 form 7	Form 7 Format for Bankers Certificate	Bank will provide the certificate in their standared format, please consider the same.	If content given by Amravati municipal corporation in RFP are same in the format given by Banks then the certificate will be considered.	
18	Page 44 Form 8 and 8A	Form 8: Format for summary of Technical Pre- qualification Project cost in INR (Cr)	We here by request to consider CA certificate for	As per tender document	

		each certificate of experience will beduly signed/confirmed by a representative of the client.	claiming the project cost of respective project as similar projects are of PPP/BOT type and all capital investment for designing, engineering, construction, commissioning is of contractor scope and for which client will not provide any certificate mentioning the project cost.		
19	Pre bid meeting	Pre bid meeting	We request to keep second pre bid meeting so that we can clarify additional queries.	No second pre bid meeting is scheduled, sufficient duration for bidding will given to bidder.	
20	Site visit	Site visit	We here by request to permit some time to visit the sites, and after visit we shall ask our additional queries related to site, if any. You are requested to kindly consider additional queries in second pre bid meeting.	It is expected that bidder must visit and study the site in detail and discusse his quries with concern official befor bidding.	
21	Due date	Due date	Request to extend the due date by 60 days.	As per tender document	
22		Corrigendum& Addendum and Replay to pre bid queries issued	We here by request to communicate and share all corrigendum & Addendum and replay to prebid	--	

			queries in below details Phone – 09860105196 Emails- sunil.mistry@smsl.co.in Add- Sunil Mistry, sms Limited, 20, IT Park, Parsodi, Gayatri Nagar, Nagpur - 440022.		
5.	***GREENVIRO INFRATECH PVT.LTD***				
23	As bio mining is a concept newly adopted by the big Municipalities, therefore we request you not to put stringent condition suitable for experience bidder for last 7 years. Kindly relax condition to allow companies already in Municipal waste handly business meeting your finanacial Criteria.			As per tender document	
24	Further more we request you to allow companies having experience in biomining allowing more competition and price advantage to your civic body. Kindly relax the experience quantity requirement of the bidder for the reason as explained above as only one or two bidders in India will qualify as per your tender condition.			As per tender document	
25	To amend scope of work	We request you to incorporate in your scope of work that the existing Dump site should be demarcated and identified in parts for treatment and land reclaimation of legacy waste which shall be separate area for fresh incoming waste. So that both activies go on simultaneously		As per tender document	
26	To amend phase wise work	We request you to implement the phase wise work i.e total work shall be carried out in two phases or in three considering the monsoon period. The phase II shall be stared only after completion of phase I		As per tender document	
27	To amend Turn over criteria	We request to incorporate that the Bidder should have aminimum Average Annual Turnover of Rs. 15 Cr. In last three financial years from Business. The Financial capacity of the consortium/JV members shall be considered Jointly. The Turnover can be obtained from any municipal waste handling business.		As per tender document	
28	To amend Net worth criteria	Also we request Bidder should have a minimum Net worth of Rs. 3 Cr in last finanacial year. The financial capacity of the consortium/ JV member shall be considered jointly. The net worth can be obtained from any municipal waste handling business.		As per tender document	
29	To add	We request to incorporate the bidder or		As per tender	

	Criteria	one of the JV partner should have the minimum average required turnover from either biomining or from work of solid waste management (C & T or waste processing) only to be eligible to participate in this tender.	document	
30	To amend quantity experience	The bidder should have experience of similar bio mining of legacy waste at dumpsite/city compost plants/processing of solid waste of minimum 30 % of 5 lakh cum if opted two phase work or 50% of 3.35 Lakh Cum if opted for three phase work. All past experience should have been obtained from India only. In case of JV one of the bidders should have met the above qualification to become eligible to participate in the tender.	As per tender document	
31	To amend joint ventur	we request to implement regarding joint venture a) A Maximum of two members shall be allowed in JV oblique consortium and both the JV members should have biomining experience. The lead member shall Hold and equity shareholding of not less than 51% of paid-up equity of the spv throughout the contract period. In case, the bid was submitted by a joint venture / Consortium no new member shall be allowed to participate in the bid post submission. The tender condition making the lead member whose credential is accepted for technical qualification please be deleted. b) Successful bidder for joint venture shell form and appropriate company RN appropriate special purpose vehicle spv Incorporated under the Indian companies act 2013 within 1 month from the issue of the letter of acceptance yellow a company or spv shall be registered in Maharashtra	As per tender document	
32	request tender extension	Last but not least, we request you to kindly extend the submission date for one month from the date of receipt of clarification of this pre-bid queries. Because due to night curfew and restriction of movement of high risk is of covid-19 and Limited office staff. It is expected delaying assessing and evaluating tender for submitting offer. kindly consider extension	As per tender document	

6.	***Samarth Softech Solution Pvt. LTD, Navi Mumbai.***			
	Successfully handled similar works during last seven years prior to the last day of maonth previous to a publication of this bid should be either of the following a. Three similar completed works costing not less than the amount equal to 40% of the estimated cost. Or b. Two similar completed works costing not less than the amount equal to 50% of the estimated cost. or c. One similar completed works costing not less than the amount equal to 80% of the estimated cost.			
33		this is to bring to your notice that quantity of waste should be process in no where mention in the tender document if we consider the standard average cost as Rs. 425/- for cubic metre then estimated approximate quantity of the solid Municipal waste should be approximately 360000 cubic metre. Technical capacity should be considered on the basis of quantity of waste process and not the cost. we would like to bring to your notice that Technical pre-qualification criteria of the Amaravati Critria is on for higher side than the usual technical requirement for the similar project in India	As per tender document	
34		It is requested that technical qualification criteria should be based on quantity of municipal solid waste and it should not be above 30% of estimated quantity. Also like to bring to your notice that most of the bi morning works of solid waste all over the India are either at tendering stage or at execution state. There are very few projects already completed and such projects size is not as big as Amravati. We request you to consider the project that are at execution stage and not yet completed this will help Amravati Municipal Corporation to get more Builders good healthy competition at competitive rate.	As per tender document	
35		we also request you to accept bank guarantee also as a big security MD as it accepted anywhere in India	As per tender document	
7.	***BVG India Limited, Pune***			
36	Clause 2.3.1(ii) Pre qualification	*Note: a. similar works means works regarding execution of scientific dumpsite /Reclamation/MSW Processing /Bio-mining of legacy waste.* *(Please consider waste processing*	As per tender document	

	Criteria	*experience)*		
37	Total waste Quantity	Please mention approximate legacy waste quantity in MT. Approximate legacy waste quantity to be process as per RFP	As per tender document	
38	Performance Security	Performance Security is 5% (it should be deducted from RA Bill)	As per tender document	
39	Payment Terms Payment intervals : 30%; 30%; and 40% i.e after 4 months, 8 months and after 12 months	Payments Terms. On monthly Basis, quantity of Cum brought at processing plant approved by Engineer in charge (Cubic meter, based on number of vehicales trips and capacity approved by Engineer in charges)	As per tender document	
8.	***Supreme Gold Irrigations Ltd., Nanded***			
40	Project cost is excluding GST		No GST is applicable for biomining work	
41	Billing will be done of monthly basis		As per tender document	
42	In JV lead member can either be Technical or financial		As per tender document	
43	Registered JV Document can be submitted within one month of allotment of project		Document regarding technical qualification are essential at the time of tender scrutiny commitee evalution.	
44	Appropriate license for disposal of finished products has to be submitted with tender form		As per guide line of MSW rule -2016	
45	For technical capacity on similar on going project having quantity not less than 70% of estimated quantity of project.		As per tender document. And added point in clause 2.3.1 OR d) as bidder must have experience minimum of legacy waste biomining upto 1,50,000 Cum quantity cumulative of maximum of two projects in last 2 years (2018-19 and 2019-20) successfully	

				handled.	
9.	***Zigma Global Environ Solution Private Limited, Erode.***				
46	General	Estimate quantity of waste is not mentioned in the RFP document. (it is requested to kindly confirm the estimated quantity of waste to be processed)		As per tender document	
47	Page No. 16	Clause 3.4.1 - The bidder shall furnish, as part of his Bid, an Earnest money Deposited (EMD) of the amount as mentioned in bid data sheet of this RFP document. The EMD must be submitted on line through Debid/Credit card.	It is requested that the EMD may be taken in the form of Bank Guarantee from Nationalized Bank.	1% EMD must submit online at the time of tendering and another 2% EMD may submit as per guide line of GR of Maharastra state government.	
48	Page No. 27	Clause 7.1.1 – Processing fee payment interval 30%; 30%; and 40% respectively based on physical progress.	It is requested that the payment may be done on monthly basis on daily inward of material taken for processing	As per tender document	

(Ravindra Pawar)	(Ravi Pawar)	(Prashant Rode)
City Engineer	Deputy Commissioner	Commissioner
AMC Amravati	AMC Amravati	AMC Amravati

-TRUE COPY-

ANNEXURE A-33

Amravati Municipal Corporation, Amravati.

Construction Department.

No. AMC/CE/ 189 /2021
Dt. 28 / 04/2021

E- Tender

Name of work: - Request for Proposals RFP for "Empanelment of Project Monitoring Consultancy for Preparation of Master Plan, DPR and of SWM project of Amravati Municipal Corporation".

Amravati Municipal Corporation (AMC) is committed to implement the above program, AMC invites E-tenders. The tender documents can be downloaded from the webside www.mahatenders.gov.in Only those agencies/ bidders, interested in bidding, shall pay the tender documents cost online.

Event	Date	Time	Web – Link/ Venue
Start of Bid Downloaded	28 / 04 /2021	16.00 pm	www.mahatenders.gov.in
Pre-Bid Meeting	11 / 05/2021	11.00 am	At- Deputy Municipal commissioner office, Amravati Municipal corporation, Amravati.
End date of online and physical Bid submission	18 / 05/2021	16.00 pm	Online submission - www.mahatenders.gov.in Physical submission - At- Deputy Municipal commissioner office, Amravati Municipal corporation, Rajkamal chowk, Amravati -444601
Technical Bid opening	20 / 05/2021	16.00 pm	Amravati Municipal Corporation,Amravati.
Financial Bid opening	---	--	Amravati Municipal Corporation,Amravati.

Note - All eligible/interested agencies/contractor/bidder are mandated to get enrolled on the e-procurement portal www.mahatenders.gov.in

Commissioner, Amravati Municipal corporation, Amravati reserves all right to accept or reject one or all tenders or make any changes at any stages of tendering process without assigning any reason.

Dy. Commissioner,
Amravati Municipal Corporation,
Amravati

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महाराष्ट्र शासन
GOVERNMENT OF MAHARASHTRA
ई-सुरक्षित बँक व कोषागार पावती
e-SECURED BANK & TREASURY RECEIPT (e-SBTR)

16208861220722

Bank/Branch: IBKL - 6910559/Amravati
Pmt Txn id : 231586012
Pmt DtTime : 13-SEP-2019@13:05:24
ChallanIdNo: 69103332019091350247
District : 6101-AMRAVATI

Stationery No: 16208861220722
Print DtTime : 13-SEP-2019 15:26:07
GRAS GRN : MH006245092201920S
Office Name : IGR457-AMT1_HQR SUB REG
GRN Date : 13-Sep-2019@13:05:27

StDuty Schm: 0030046401-75/STAMP DUTY
StDuty Amt : R 2,18,000/- (Rs Two, One Eight, Zero Zero Zero only)

RgnFee Schm: 0030063301-70/Registration Fees
RgnFee Amt : R 0/- (Rs Zero only)

Article : 63-Work Contract
Prop Mvblty: N.A.
Prop Descr : 1
Consideration: R 2,18,000/-

Duty Payer: PAN-AAIFG7225P,GANGA TRADING CO

Other Party: TAN-NGPM01072B,MUNICIPAL CORPORATION AMRAVATI

Tebhane 12864 3

Bank official1 Name & Signature

Chitalkar 120761

Bank official2 Name & Signature
--- --- Space for customer/office use - - - Please write below this line --- ---

CONTRACT AGREEMENT

This agreement, made the____day of_____ 2019 ,between the Amravati Municipal Corporation having registered address at Amravati Municipal Corporation, Rajkamal Square, Amravati, Maharashtra-444601] (Hereinafter called as "the Authority") of the one-part and M/S. Ganga Trading Company (Lead Member) in JV with P.H.Jadhav,(Technical Partner) having registered address of Lead Member- Address of Ganga Trading Company; C/o Vidarbha Tyres Building, Mote Compound, Morshi Road, Amravati-444 601 (hereinafter called "the Contractor") of the second part.

Whereas the Authority is desirous that Contractor should execute **The Work of "Design, supply, installation, erection, commissioning of municipal solid waste processing plant along with associated civil works at various locations in Amravati (with operation & maintenance for 3 years)** (hereinafter called "the Works") and the Authority has accepted the Bid of the Contractor for the execution and completion of such Works and the remedying of any defects there in, at a contract price of INR 194269708.44/- excluding GST of 12% for civil works and inclusive of applicable GST(as per Government Norms) for plant and machineries for Part A- For construction of processing and treatment plant and Tipping fee of INR 332.00 /-

e-SBTR IS VALID UPTO SIX MONTHS FROM THE DATE OF PAYMENT.

(2)

including GST for Part B- for Operation and maintenance of processing, treatment of MSW and scientific disposal of inert material.

NOW THIS AGREEMENT WITNESSETH as follows:

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

2. In consideration of the payments to be made by the Authority to the Contractor as hereinafter mentioned. the Contractor hereby covenants with the Authority to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.

3. The Authority hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein 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.

4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

i. Letter of Acceptance;
ii. Notice Inviting Bid;
iii. Bid Document issued by the Amravati Municipal Corporation and its subsequent amendments and corrigendum
iv. Contractor's Bid;
v. Conditions of contract (including Special Conditions of Contract);
vi. Specifications;
vii. Drawings and Site Map;
viii. Any other document listed in the Condition of Contract forming part of the contract.

In witness whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of Authority was here unto affixed in the presence of:

Signed, Sealed and Delivered by the said

In the presence of:

20.9.19

Deputy Commissioner,
Amravati Municipal Corporation
Binding Signature of Authority

Signature of Witness-1:
Name: Dr. V. S. Kale
Designation:

Signature of Witeness-2:
Name:
Designation: शहर अभियंता, महानगरपालिका, अमरावती

Ganga Trading Co.

Partner

Mr Gopal Panpaliya, Partner
M/S Ganga Trading Company
(authorized signatory of M/S. Ganga Trading Company in JV with P.H.Jadhav)
Binding Signature of Contractor

Signature of Witness-1:
Name: Gopal N. Vyas
Designation:

Signature of Witeness-2:
Name: Shyam J. Kale
Designation:

अमरावती महानगरपालिका * AMC * नगर सचिव कार्यालय

1) बाळासाहेब शंकर भुयार
स्थायी समिती सदस्य

2) मंगेश रामदास वनसोड

Sealee & Stamped before me

Standing Committee Member

नगरसचिव
महानगरपालिका, अमरावती.

(3)

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सहा. अभियंता
महानगरपालिका, अमरावती

Ganga Trading Co.
Partner

वैद्यकिय आरोग्य अधिकारी
महानगरपालिका अमरावती

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वैद्यकिय आरोग्य अधिकारी
महानगरपालिका अमरावती

Ganga Trading Co.
Partner

सहा. आयुक्त
महानगरपालिका अमरावती

(5)

A. General Conditions of Contract (GCC)

1. Definitions

1.1. In this Contract, the following terms shall be interpreted as indicated:

- The **"Authority"** is the party who will employ the Contractor to carry out the Works. Amravati Municipal Corporation acting through Municipal Commissioner is the Authority and will include Municipal Commissioner of Municipal Corporation of City of Amravati appointed under provisions of Maharashtra Municipal Corporation Act, 1949.
- **"Bill of Quantities"** means the priced and completed Bill of Quantities forming part of the Bid.
- The **"Contract"** means the agreement entered into between the Authority and the Contractor, as recorded in the Contract Form signed by the parties, including all the attachments and appendices thereto and all documents incorporated by reference therein;
- The **"Contractor"** is a person or corporate body whose Bid to carry out the Works has been accepted by the Authority.
- The **"Contractor's Bid"** is the completed Bidding document submitted by the Contractor to the Authority and includes Technical and Financial bids.
- The **"Contract Value"** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.
- **"Days"** are calendar days; months are calendar months.
- A **"Defect"** is any part of the Works not completed in accordance with the Contract.
- The **"Defects Liability Period"** is the period named in the Contract Data and calculated from the Completion Date.
- **"Equipment"** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- **"GCC"** means the General Conditions of Contract contained in this section.
- The **"Goods"** means all the equipment, machinery, and/or other materials which the Contractor is required to supply to the Authority under the Contract.
- The **"Government"** means the Government of Maharashtra State.
- The **"Initial Contract Price"** is the Contract Price listed in the Authoirty's Letter of Acceptance.
- The **"Intended Completion Date"** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date may be revised only by the Authority by issuing an extension of time.
- **"Materials"** are all supplies, including consumables, used by the contractor for incorporation in the Works.

शहर अभियंता
महानगरपालिका,अमरावती

Ganga Trading Co.
Partner

वैद्यकिय आरोग्य अधिकारी
महानगरपालिका अमरावती

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

- **"Project Management Consultant (PMC)"** shall be a third party, which is either a company, corporation, partnership, joint venture on individual, or any other legal entity as may be procured through transparent competitive bidding process by the Authority and who shall be the nodal entity for supervision and monitoring of compliance by Contractor with respect to the terms and conditions as defined in the Contract Agreement for the Contractor.

- **"SCC"** means the Special Conditions of Contract.

- **"Services"** means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training and other obligations of the Contractor covered under the Contract;

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

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

- A **"Subcontractor"** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, with prior permission from authority, which includes work on the Site.

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

- A **"Variation"** is an instruction given by Authority, which varies the Works.

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

2. Application

2.1. These General Conditions shall apply to the extent that provisions in other parts of the Contract do not supersede them.

3. Standards

3.1. The Goods and machines supplied under this Contract shall conform to the standards mentioned in the Technical Specifications given in the technical bid of the Contractor, and, when not applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

4. Use of Contract Documents and Information; Inspection and Audit by the Government

4.1. The Contractor shall not, without the Authority's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Authority in connection therewith, to any person other than a

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person employed by the Contractor in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

4.2. The Contractor shall not without the Authority's prior written consent, make use of any document or information enumerated in GCC Clause 4.1 except for purposes of performing the contract.

4.3. Any document other than the Contract itself, enumerated in GCC Clause 4.1 shall remain the property of the Authority and shall be returned (in all copies) to the Authority on completion of the Contractor's performance under the Contract if so required by the Authority.

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

5. Ownership, rights and title

5.1. The ownership, rights and title to any part of the works including land, immovable assets, movable assets, plant and machineries shall remain with the Authority.

5.2. **Patent Rights** - The Contractor shall indemnify the Authority against all third-party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods or any part thereof in India.

6. Performance Security

6.1. Contractor shall have to furnish Performance Security within 21 days to the Authority in the form of bank guarantee ("the Performance Bank Guarantee" (PBG)) issued by a nationalized / scheduled bank located in India or a reputable bank located abroad having corresponding bank in India, in the format given in this RFP, for an amount equivalent to 5% of the Contract value. The performance security of a joint venture shall be in the name of the joint venture (performance Security deposit should be paid latest GRs of State Government of Maharashtra).

6.2. Failure of the successful bidder to comply with the requirements of above clause, shall constitute a breach of contract, cause for annulment of the award, forfeiture of the EMD, and any such other remedy the Authority may take under the contract.

6.3. The PBG shall be valid up to 30 days after the date of completion of Contract.

6.4. The proceeds of the PBG shall be payable to the Authority as compensation for any loss resulting from the Bidder's failure to complete its obligations under the Contract.

6.5. The PBG will be discharged by the Authority and returned to the Bidder not later than 60 days following the date of completion of the Bidder's performance obligations, including any Warranty obligations, defect liability period under the Contract.

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7. Inspections and Tests

7.1. The Authority or its representative shall have the right to inspect and/or to test the Goods and construction works of any component of work to confirm their conformity to the Contract specifications at no extra cost to the Contractor.

7.2. The contractor shall conduct third party inspection from any of the inspection agency approved by Government of India. The cost of the inspection should be paid by the contractor and no reimbursement shall be made by Authority for the inspection. The inspection shall be done on the basis of the technical bid submitted by the contractor or the approved designed and drawings by the Authority.

7.3. The inspections and tests may be conducted on the premises of the Contractor or its subcontractor(s), at point of delivery and/or at the Goods final destination. If conducted on the premises of the Contractor or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data - shall be furnished to the inspectors at no charge to the Authority.

7.4. Should any inspected or tested Goods fail to conform to the specifications, as per I. S. code for various material and tests. The Authority may reject the goods and the Contractor shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Authority.

7.5. The Authority's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at Project Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the Authority or its representative prior to the Goods shipment.

7.6. Nothing in GCC Clause 7 shall in any way release the Contractor from any warranty or other obligations under this Contract.

7.7. Manuals and Drawings

7.7.1. Before the goods and equipment are taken over by the Authority, the Contractor shall supply operation and maintenance manuals together with drawings of the goods and equipment. These shall be in such detail as will enable the Authority to operate, maintain, adjust and repair all parts of the equipment as stated in the specifications.

7.7.2. The manuals and drawings shall be in the ruling language (English) and in such form and numbers as stated in the contract.

7.7.3. Unless and otherwise agreed, the goods and equipment shall not be considered to be completed for the purpose of taking over until such manuals and drawings have been supplied to the Authority.

7.7.4. For machinery and electrical item's required for projected are supplied as per IS specified and directed and verified by technical expert engineer of Authority or appointed by authority.

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8. Packing

8.1. The packing of the goods may not be required however the documents like operational manual and list of equipments shall be submitted in two copies in booklet form.

9. Delivery and Documents

9.1. Delivery of the Goods shall be made by the Contractor in accordance with the terms specified by the Authority in the Notification of Award. The bills for the machines shall be submitted in duplicate. The bills for only that equipment will be accepted whose delivery at site has been done by the Contractor.

10. Insurance

10.1. It will the responsibility of the contractor that the Goods and machines supplied under the Contract shall be fully insured by the contractor in Indian Rupees against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery for complete duration of the contract. For delivery of goods at site, the insurance shall be obtained by the Contractor in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destinations) on "All Risks" basis including War risks and Strikes.

11. Transportation

11.1. Where the Contractor is required under the Contract to transport the Goods to a specified place of destination within India defined as Project site, the Contractor, as shall be specified in the Contract, shall arrange transport to such place of destination in India including insurance, and the related cost shall be included in the Contract Value.

12. Incidental Services

12.1. The Contractor may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

a. performance or supervision of the on-site assembly and/or start-up of the supplied Goods;
b. furnishing of tools required for assembly and/or maintenance of the supplied Goods;
c. furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
d. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Contractor of any warranty obligations under this Contract; and
e. Training of the Authority's personnel, at the Contractor's plant and/or on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.
f. Detailed specifications of each equipment in detail to be provided.
g. arrangement of required vehicles and implements for loading & unloading of Equipment at Facilities and other required infra for assembling of equipment.

12.2. Prices charged by the Contractor for incidental services, if not included in the Contract Value for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Contractor for similar services.

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13. Spare Parts

13.1. As specified in the SCC, the contractor shall be required to provide any or all of the materials and spare parts at no cost to Authority.

13.2. The Contractor shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods, such as gaskets, plugs, washers, belts etc.

14. Warranty

14.1. The Contractor warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Contractor further warrants that all Goods supplied under this Contract shall have no defect arising from design, materials or workmanship (except when the design and/or material is required by the Authority's Specifications) or from any act or omission of the Contractor, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.

14.2. This warranty shall remain valid for 12 months after all the sections of the entire plant have been delivered and successfully commissioned and desired outputs are achieved as indicated in the Contract. Although section wise commissioning is proposed the warranty will come into effect only after completion of all the sections. The Contractor shall, in addition, comply with the performance and/or consumption guarantees specified under the Contract. If for reasons attributable to the Contractor, these guarantees are not attained in whole or in part, the Contractor shall at its discretion either:

a. make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC Clause 2; OR

b. Pay liquidated damages to the Authority with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be as specified in the Technical Specifications.

14.3. If the Contractor, having been notified, fails to remedy the defect(s) within 15 days, the Authority may proceed to take such remedial action as may be necessary, at the Contractor's risk and expense and without prejudice to any other rights which the Authority may have against the Contractor under the Contract.

14.4. All the goods supplied and services rendered by contractor to authority shall be got verified from Maharashtra Pollution Control Board, or expert competent authority under SWM Rules, 2016 and CPHEEO Manual for MSW,2016 or any other specified authority under law.

14.5. All the permits, approvals, no objection certificate, consents, authorisation, sanctions, permission etc. required for execution of this project and / or implementation of contract and required under any rules and notification and / or government resolution and / or corporation and / or otherwise, then the same will be obtained by the contractor and its costs and no work will be done without such permits, approval permissions, sanctions, no objection etc.

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15. Payment

15.1. The method and conditions of payment to be made to the Contractor under this Contract shall be specified in the SCC.

15.2. The Contractor's request (s) for payment shall be made to the Authority in writing, accompanied by an invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents, submitted pursuant to GCC Clause 9, and upon fulfilment of other obligations stipulated in the contract.

15.3. Payments shall be made promptly by the Authority within not more than 30 days but subject to satisfaction of Municipal Commissioner in respect of work done as mentioned in invoice or claim by contract.

15.4. Payment shall be made in Indian Rupees.

15.5. GST is applicable as per tender document and current set of deviation (CSD) uploaded on Dt 03/08/2019.

15.6. Additional performance security may released by Authority offer successful completion of basis work such as civil/machinery work in specified manner.

16. Prices

16.1. Prices payable to the Contractor as stated in the contract shall be firm during the performance of the contract.

17. Change Orders

17.1. The Authority may at any time, by written order given to the Contractor pursuant to GCC Clause 31, make changes within the general scope of the Contract in any one or more of the following:

a. drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Authority;
b. The Services to be provided by the Contractor.

17.2. If any such change causes an increase or decrease in the cost of, or the time required for, the Contractor's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Value or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Contractor for adjustment under this clause must be asserted within thirty (30) days from the date of the Contractor's receipt of the Authority's change order.

18. Contract Amendments

18.1. Subject to GCC Clause 17, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

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18.2. Authority reserves the rights to change in scope, requirements of the works and any modifications, amendments, rectification of clauses in the agreements required for successful implementation of the works.

19. Assignment

19.1. The Contractor shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Authority's prior written consent.

20. Subcontracts

20.1. The Contractor shall not subcontract the work of processing during the contract period.

20.2. for better performance in above mention work addition of technical and financial/directors is permitted after the consent of Authority.

21. Delays in the Contractor's Performance

21.1. Delivery of the Goods and performance of the Services shall be made by the Contractor in accordance with the time schedule specified by the Authority in the Schedule of Requirements.

21.2. If at any time during performance of the Contract, the Contractor or its sub-contractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Contractor shall promptly notify the Authority in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Contractor's notice, the Authority shall evaluate the situation and may, at its discretion, extend the Contractor's time for performance with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of the Contract.

21.3. Except as provided under GCC Clause 24, a delay by the Contractor in the performance of its delivery obligations shall render the Contractor liable to the imposition of liquidated damages pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of liquidated damages.

22. Liquidated Damages

22.1. Subject to GCC Clause 24, In case the work is not completed within the stipulated period of completion of whole or part of work (achievement of milestones specified by authority) along with all such extensions which are granted to the Contractor for either Authority's default or Force Majeure, the compensation shall be levied on the contractor at the rate of **0.05%** of the contract amount per day of delay limited to maximum of 10% of contract amount.

22.2. The Authority will deduct the liquidated damages from payments due to the Contractor.

22.3. If the liquidated damage attains to a maximum of **10% of the contract amount** the authority may:

(i) Terminate the contract agreement and forfeit the EMD and the Performance Security.

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(ii) Retain the contractor on depositing the amount equivalent to the such liquidity damage of **10% of the contract amount.** However, the retention of the contractor on such ground shall not free him from his liabilities for completion of the work or any future imposition of liquidity damages.

22.4. The decision of the Authority in this regard shall be final and binding upon both the parties.

23. Termination for Default

23.1. The Authority may, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Contractor, terminate the Contract in whole or part:

a. if the Contractor fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Authority pursuant to GCC Clause 21; or
b. if the Contractor fails to perform any other obligation(s) under the Contract.
c. If the Contractor, in the judgement of the Authority has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this Clause:
"Corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

"fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower and includes collusive practice among Contractor (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition.

23.2. In the event the Authority terminates the Contract in whole or in part, pursuant to GCC Clause 23.1, the Authority may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Contractor shall be liable to the Authority for any excess costs for such similar Goods or Services. However, the Contractor shall continue the performance of the Contract to the extent not terminated.

24. Force Majeure

24.1. Notwithstanding the provisions of GCC Clauses 21, 22, 23, the Contractor shall not be liable for forfeiture of its performance security, liquidated damages or termination for default, if and to the extent that, it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

24.2. For purposes of this Clause, "Force Majeure" means an event beyond the control of the Contractor and not involving the Contractor's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the Authority either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

24.3. If a Force Majeure situation arises, the Contractor shall promptly notify the Authority in writing of such conditions and the cause thereof. Unless otherwise directed by the Authority in writing, the

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Contractor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

25. Termination for Insolvency

25.1. The Authority may at any time terminate the Contract by giving written notice to the Contractor, if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Authority.

26. Termination for Convenience

26.1. The Authority, by written notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Authority's convenience, the extent to which performance of the Contractor under the Contract is terminated, and the date upon which such termination becomes effective.

27. Settlement of Disputes

27.1. The Authority and the Contractor shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract. For any dispute occur, decision of Municipal Commissioner, AMC will be final.

27.2. If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Authority or the Contractor may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.

27.2.1. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

27.2.2. Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the SCC. The place of arbitration shall in Amravati.

27.3. Notwithstanding any reference to arbitration herein,

a. The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
b. The Authority shall pay the Contractor any monies due to the Contractor.

28. Limitation of Liability

28.1. Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 5,

a. The Contractor shall not be liable to the Authority, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Authority; and

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b. The aggregate liability of the Contractor to the Authority, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Value, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing Language

29.1. The contract shall be written in English language. Subject to GCC Clause 30, English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

30. Applicable Law

30.1. The Contract shall be interpreted in accordance with the laws of the Union of India.

31. Notices

31.1. Any notice given by one party to the other pursuant to this Contract shall be sent to other party in writing or by cable, telex, email or facsimile and confirmed in writing to the other Party's address specified in SCC.

31.2. A notice shall be effective when delivered or on the notice's effective date, whichever is later.

32. Taxes and Duties

32.1. Contractor shall be entirely responsible for all taxes such as duties, license fees, road permits, etc., incurred until delivery of the contracted Goods to the Authority.

33. Personnel

33.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel in the Form 9 (B) of his submitted technical bid to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The City Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

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

34. Liability for Accidents to Person

34.1. The contractor shall be deemed to have indemnified and saved harmless the Government and/or the Authority, against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the contractor or his subcontractor for the works whether under the General law or under workman's compensation Act, or any other statute in force at the time of dealing with the question of the liability of employees for the injuries suffered by employees and to have taken steps properly to ensure against any claim there under.

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35. Completion Certificate

35.1. A provisional completion certificate in the prescribed format as given in **Annexure I** of this condition of contract shall be issued by the Authority after physical completion of the work.

35.2. After final payment to the contractor, a final completion certificate in the prescribed format as given in **Annexure II** of this condition of contract shall be issued by the Authority.

35.3. The Authority shall take over the Site and the Works within seven days of the issue of the provisional Completion certificate. Contractor shall handover the site and the works without any damage and disputes to authority after the provision completion certificate. All the necessary handover documentation and listing of assets should be done during the take over from authority.

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B. Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the General Conditions is indicated in parentheses.

1. Role of Parties to the Contract

1.1. Role of the Authority- The Authority shall play the following role in this project

1.1.1. The Authority shall handover the Project Site and on an as-is-where-is basis, free from encumbrances, for the execution of the Project. The Authority will not provide any equipment or vehicle for the project. All equipment and machinery required by the successful contractor shall be arranged by the contractor at his own cost.

1.1.2. The Authority shall provide access to the land earmarked to the contractor for implementing the project.

1.1.3. The Authority shall co-operate to contractor for provide necessary permits, approvals and assistance to contractor in obtain Water and Sewage Connection and Power Connection. Authority will also provide necessary assistance (documentation/ letters etc) to contractor in getting no objection certificates/authorizations/consents which are required by the contractor to execute the project, however all related costs to be undertaken by contractor and contractor will obtain the same at his cost and consequences.

1.1.4. The Authority shall permit the contractor to carry out the project till the conclusion of the Contract Period of Six months or any extension thereof if any.

1.1.5. The Authority shall provide final approval of layout and detailed drawings within 15 days of submission.

1.1.6. The Authority shall provide electricity supply load till transformer as per the plant requirement.

1.1.7. The Authority shall provide clear levelled ready clear site to carry out the construction and installation.

1.1.8. The Authority shall clear the site from old dumped / legacy waste where construction is to be done.

1.1.9. The Authority shall ensure permission to work during normal and extended hours.

1.1.10. The Authority shall provide boundary wall/ fencing with gates to respective sites.

1.2. Role of the Contractor- The Contractor shall play the following role in this project

1.2.1. The contractor shall execute and complete the project in accordance with the provisions set out in the tender document, the Conditions of contract and the contract agreement.

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1.2.2. The contractor shall have no right or title or leasehold right on the land earmarked to them. The Land earmarked to the Bidder shall not be used for any other purpose other than for the project purpose.

1.2.3. The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Authority at any point of time.

1.2.4. The contractor shall supply and provide all required internal electrical supply from transformer (provided by authority) to machines and buildings including supply line from transformer to control panel and then after on his own. All the necessary additional illuminations for site to be provided by contractor. And pay bill to respective authority.

1.2.5. All other construction requirements and civil works for processing works as per his process design and engineering, building works, general site developments (as mentioned in annexure) shall be constructed by contractor.

1.2.6. Contractor shall provide all necessary vehicles and equipment's, skilled manpower for successful operation and maintenance of processing and treatment plant and scientific landfill site on their own cost.

1.2.7. Contractor may provide advance technology for this project with all permission and sanctions required for it by the cost of contractor no additional payment than approved DPR is allowed.

1.2.8. Contractor shall take all necessary clearance (Environmental Clearances) from Ministry of Environment, Forest and Climate Change, authorization from MPCB/CPCB and all other necessary environmental compliances as under SWM rules, 2016 required for the construction of scientific landfill site. Contractor shall undertake all the necessary NOC. consents from various departments including PWD, NHAI, Railway etc prior to construction of landfill site.

1.2.9. Contractor shall conduct all designated tests for materials as per the IS codes and PWD standards during the construction stages and directed by in charge site engineer.

1.2.10. Contractor shall perform and fulfil all the terms and conditions of the contractor.

2. Inspection and Tests (GCC Clause 7)

The Authority requires the following inspection procedures and tests: The Contractor before commencement of supply will design as per the plant layout and get it approved by the Authority before manufacturing and Supply. Pre-shipment tests are mandatory. The Authority / Project Consultants will inspect the material as per the specifications mentioned in the bid document before dispatch of materials.

The specifications of the machines have been given in the tender document. There may be minor changes as per the manufacturer design. The manufacturer has to submit the design and get it approved from the Authority. The Contractor shall get the machines inspected by third party agency approved by Government of India, these inspecting agency can be like NSIC/ RITES/ SGS

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/NEERI / MPCB etc, with no cost to Authority. The contractor should submit the inspection report to the Authority within 15 days of receiving the reports from inspection agency.

3. Delivery and Documents (GCC Clause 9)

Upon delivery of the Goods, the Contractor shall notify the Authority and the insurance company by the full details of the shipment including contract number, railway receipt number and date, description of goods, quantity, name of the consignee etc. The Contractor shall mail the following documents to the Authority with a copy to the insurance company:

(i) Two Copies of the Contractor invoice showing contract number, goods' description, quantity, unit price, total amount;
(ii) Acknowledgment of receipt of goods from the consignee(s);
(iii) Two Copies of packing list identifying the contents of each package;
(iv) Insurance Certificate;
(v) Manufacturer's/Contractor's warranty certificate;
(vi) Inspection Certificate / Contractor's factory inspection report;

The above documents shall be received by the Authority before arrival of the Goods (except where the Goods have been delivered directly to the Consignee with all documents) and, if not received, the Contractor will be responsible for any consequent expenses.

4. Incidental Services (GCC Clause 12)

The following services covered under Clause 12 shall be furnished and the cost shall be included in the contract Value: While quoting the Contractor shall quote considering all the work mentioned in Annexure.

5. Payment (GCC Clause 15)

5.1. Payment towards supply, erection and commissioning of Plant, machinery, vehicle & equipments (as indicated in the annexure) will be made as under.

Stage No	Description	payment of the contract Value
1	Upon receipt of Equipments at site and submission of the documents as mentioned in GCC and SCC	50 %
2	Upon successful erection of major parts and receipt of provisional completion certificate	35 %
3	Upon Successful commission and Trial Run and receipt of final completion certificate	15 %
Note: - **2 %** Performance security to be deducted from each payment which shall be released at the end of defect liability period i.e. **3 years** - Nos. of bills for each stage shall not exceed 5 (five)		

5.2. Payment towards Construction of civil works (As indicated in the annexure) will be made as under:

Stage No	Description	payment of the contract Value
1	Upon completion of 15 % of construction works & physical verification of works & Bills submitted	15 %

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2	Upon completion of 30 % of construction works & physical verification of works & bills submitted	15 %
3	Upon completion of 45 % of construction works & physical verification of works & Bills submitted	15 %
4	Upon completion of 60 % of construction works & physical verification of works & Bills submitted	15 %
5	Upon completion of 75 % of construction works & physical verification of works & Bills submitted	15 %
6	Upon completion of 90 % of construction works & physical verification of works & Bills submitted	15 %
7	Upon completion of 100 % of construction works & successful trial run and receipt of final completion certificate	10 %

Note:

- **2 %** Performance security to be deducted from each payment which shall be released at the end of defect liability period i.e. **2 years**
- Nos. of bills for each stage shall not exceed 5 (five)

5.3. Payment towards Operation and Maintenance

No	Description	Cumulative % of payment of the contract Value
1	Monthly bill as per the tipping fees quoted by the Contractor	100 %

Note:

- **2%** Performance security to be deducted from each payment which shall be released at the end of Operation and Maintenance period of **3 years.**
- The Contractor shall be paid monthly based on the actual quantity of waste received and processed waste by the contractor which will be derived as under.
  Payment to be made to contractor = Actual Net Quantity of Waste Received (in Metric Tonne) multiplied by the Rate quoted in the tender (per Metric Tonne)
- In addition to the monthly tipping fee, the contractor shall retain all the revenue accrued from the sale of recyclables, sale of compost or any other product/by-product till the expire of the O&M Contract.
- The Daily Weight Sheet shall be final and binding on the Parties for calculating the payment.

6. Completion Period

6.1. The completion period for all the work i.e. Design, supply, installation, erection, trial run and commissioning of plant and all associated civil works at various locations shall be **6 months**, excluding monsoon period, from the date of work order.

6.2. The operation and maintenance period shall be **3 years** from the date of successful commissioning of the processing plant. O&M period can be extended for another 2 years based on the performance of contractor. Tipping fees for extended contract period shall be decided based mutual discussion between authority and contractor and as per standard operating procedures.

7. Penalty

7.1. Inert/rejects shall not be more than **15% of the total waste**, If It is found that the inert is more than 15% of total waste coming to the landfill site then Authority shall impose penalty of 200/- Rs on every ton.

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7.2. If Contractor fail to run the plant till the 30 days, then Authority shall impose penalty of 100/- Rs/ton during this shut down.

7.3. If Contractor fail to run the plant till the 90 days, then Authority shall issue notice of termination of the contract immediately.

8. Settlement of Disputes (GCC Clause 27)

The dispute settlement mechanism to be applied pursuant to GCC Clause 27.2.2 shall be as follows:

- In case of Dispute or difference arising between the Authority and a domestic Contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996, by a Sole Arbitrator. The Sole Arbitrator shall be appointed by agreement between the parties; failing such agreement, by the appointing authority namely the President of the Institution of Engineers (India). The retired High Court Justice will be the arbitrator. A certified copy of the appointment Order shall be supplied to each of the Parties.
- Arbitration proceedings shall be held at Amravati Maharashtra, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
- The decision of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid by contractor. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings shall be borne by each party itself.

9. Notices (Clause 31)

For the purpose of all notices, the following shall be the address of the Authority and Contractor.
Authority: .....
.....
.....
.....
Contractor: (To be filled in at the time of Contract signature)
.....
.....
.....
.....

10. Progress of Supply

Contractor shall regularly intimate progress of supply, in writing, to the Authority as under:

- Date of inspection and the list of equipments to be inspected;
- List of accepted/rejected by inspecting agency and date;
- List of equipments despatched to consignees and date;
- Date of completion of entire Contract including incidental services, if any; and

(in case of stage-wise inspection, details required may also be specified).

11. Right to use defective equipment

If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the equipment proves to be unsatisfactory, the Authority shall have the right to

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continue to operate or use such equipment until rectifications of defects, errors or commissions by repair or by partial or complete replacement is made without interfering with the Authority's operation.

12. Contractor Integrity

The Contractor is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state-of-the-art methods and economic principles and exercising all means available to achieve the performance specified in the Contract.

13. Contractor's Obligations

The Contractor is obliged to work closely with the Authority's staff, act within its own authority and abide by directives issued by the Authority and implementation activities. The Contractor will abide by the job safety measures prevalent in India and will free the Authority from all demands or responsibilities arising from accidents or loss of life the cause of which is the Contractor's negligence. The Contractor will pay all indemnities arising from such incidents and will not hold the Authority responsible or obligated.

The Contractor is responsible for managing the activities of its personnel or sub-contracted personnel and will hold itself responsible for any misdemeanors. The Contractor will treat as confidential all data and information about the Authority, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Authority.

14. Patent Rights

In the event of any claim asserted by a third party of infringement of copyright, patent, trademark or industrial design rights arising from the use of the Goods or any part thereof in the Authority's country, the Contractor shall act expeditiously to extinguish such claim. If the Contractor fails to comply and the Authority is required to pay compensation to a third party resulting from such infringement, the Contractor shall be responsible for the compensation including all expenses, court costs and lawyer fees. The Authority will give notice to the Contractor of such claim, if it is made. without delay.

15. Compliance to Law, Rules and Regulations

The contractor shall abide with all the rules and regulations of the Government of India. Government of Maharashtra, Local Governments or any other Government bodies that has direct or indirect incidence on the project, in addition to the rules and regulations mentioned below.

The Contractor shall keep the Authority indemnified in case any action is taken against the Authority by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Authority is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Authority shall have the right to deduct any money due to the Contractor including his amount of performance security. The

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Authority/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Authority.

The contractor shall perform his obligations for the completion of the works under the umbrella of the below given rules and regulations.

15.1. Compliance with Labour Regulations

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority.

15.2. Protection of Environment

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all the terms and conditions prescribed in the Environmental Clearance/ Consent to Establish/Consent to operate issued to the project, existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

The contractor shall commence the project activities as per the rules, regulations and guidelines as set forward by the Solid Waste Management, 2016 and its subsequent amendments thereof, Construction and Demolition Waste Management Rules 2016 and its subsequent amendment thereof, Plastic Waste Management Rules 2016 and its subsequent amendment thereof, Bio-Medical Waste management rules 2016 and its subsequent amendment thereof, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and its subsequent amendment thereof, E-waste management rules 2016 and its subsequent amendment thereof, Environment Protection Act 1986 and its subsequent amendment thereof. Contractors to note that this is the minimum criteria required for the commencement of this work and the contractor will practice the best possible method to protect the Environment.

**********END OF SCC**********

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C. Scope of Work

1. Background

1.1. With an objective to address the current Municipal Solid Waste (MSW) management the Authority i.e. Amravati Municipal Corporation is establishing mechanical waste treatment and disposal facilities for treating of mixed waste. In order to achieve the said objective, it is now proposed to **establish Municipal Waste Processing plant** along with **associated civil works** at various location in Amravati.

1.2. The following are the details of facility proposed to be constructed at the following locations

Sr. No.	Description	Zone 1 (A)	Zone 2 (B)	Zone 3 (C)
1.	Proposed Location of Project Site	Sukali Compost Depot Site, Amravati	Akoli Bypass Site, Amravati	Badnera Site, Amravati
2.	Approximate Area of Project Site	12 Hectare	2.83 Hectare	1.15 Hectare
3.	Proposed Municipal Waste Processing Plant Capacity	**200 TPD**	**100 TPD**	**50 TPD**
Note: (Refer annexure for location of proposed processing plant)				

2. Proposed Processing System

2.1. The contractor is required to construct a mechanized Pre-sorting facility, Post sorting facility and windrow composting facility. The indicative technology proposed to be constructed is detailed in the annexure.

2.2. The Contractor can make minor changes as per the technology design requirements but should not change the fundamental processing technology. If contractor suggest any major significant change apart from that mentioned in DPR, without changing fundamental processing technology, contractor shall take all necessary revised technical sanction from MJP or concerned state agency on behalf of authority without any fees and additional cost from authority.

2.3. All the necessary general site developments such as weighbridge, security room, pavement works, green belt developments, water supply and storm water drainage provisions etc. should be provided by contractor. Details of necessary allied civil works and general site developments mentioned in annexure.

3. Construction Stage

a. Requirements

3.1. For achieving the desired objective of waste processing, the contractor is required to Design, supply, installation, erection, commissioning of municipal solid waste processing plant along with associated civil works.

3.2. <u>For Civil Works:</u> The number, size, capacity, volume etc for items required for civil works has been given in the Condition of Contract (Annexure) and the minimum specification required in the BOQ (Volume 3) of this RFP Document. The bidder can make minor changes as per the requirement but should not change the basic capacity/ quality / minimum required specification for all proposed civil works. The successful bidder should provide detail specification design and drawings of all items and get it approved from Authority. The defect liability period for civil works shall be 2 years.

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3.3. For Plant, Machinery, Vehicle & Equipments: The number, size, capacity, volume etc for items required for civil works has been given in the Condition of Contract (Annexure) and the minimum specification required in the BOQ (Volume 3) of this RFP Document. The bidder can make minor changes as per the requirement but should not change the basic capacity/ quality / minimum required specification for all proposed Plant, Machinery, Vehicle & Equipments etc. The successful bidder should provide detail specification design and drawings of all items and get it approved from Authority. The defect liability period for machineries shall be 3 years.

b. Approvals before commencement

3.4. Post award of work, the contractor shall adhere to the construction requirements in annexure within 2 weeks' time and shall provide the following:

3.4.1. Detailed engineering design and specifications of all equipment's to be supplied, by positioning them in the plant layout.

3.4.2. Footing drawings (foundation-drawing) shall also be submitted with in 2 week's time.

3.4.3. Items that have not been considered by the Authority but felt necessary by the Contractor shall be listed and recommended. The decision of the Authority with regard to the same will be final. However, the Contractor shall make his best effort to identify such equipment's at the time of bidding and include it in his quote and give the details in the breakup of cost.

3.5. The Authority shall scrutiny the layout & equipment specification in detail and give required approval for start of work within a weeks' time by issuing a notice to proceed.

3.6. All the necessary clearances, authorisations and consents to be taken from Maharashtra Pollution Control Board or other statutory authorities as required under SWM rules, 2016 and NOCs required from concerned departments such PWD, Railway etc to be taken by contractor.

c. Supply and Erection

3.7. Post approval by the Authority, the Contractor shall fabricate all the equipment and inform the Authority regarding the readiness of the equipment's for inspection.

3.7.1. The Contractor shall ensure that all steel materials are painted with anti-corrosive painting, in accordance with the international standards, so as to avoid corrosion.

3.7.2. The Contractor shall follow the best available industrial specifications, safety norms and standards for manufacturing the equipment.

3.8. Authorized inspection agency of the Authority (Project Consultants) will inspect the quality of goods as per the conditions laid in the GCC & SCC. Shipment of equipment can be done only after approval form the Authority. Specifications for machineries shall be in accordance with BIS specifications & other relevant standards.

3.9. The manufacturer shall ensure that all machines and equipment supplied are new machines of recent conception, free of defects and operational failures.

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3.10. Authority will provide the main electric supply point till transformer location of the plant.

3.10.1. Contractor shall provide all other electric including cabling (supply line) from transformer to control panel and from the manufacturer's control panel in each of the sections to the individual motors and drives. Contractor shall make sure that all the electrical works for civil works, plant and machinery should be as per NBC, BIS standards, IS code and industrial norms provisions. Proper illumination, ventilation and exhaust system shall be provided for civil works, plant and machineries as per norms and standards.

3.10.2. The electrical system shall be so designed that the same shall work under normal supply conditions and at the same time shall also take care of frequent power supply interruptions and fluctuations. DG sets to be provided by contractor for interrupted operations.

3.11. The Contractor along with the supply of equipment's, shall provide operators manual which shall contain detailed description, expected life time, technical data & performance curve, make, capacity, safety measures to be considered etc.

3.12. The manufacture responsibilities are valid up to the expiration of the guarantee period. The manufacturer is required to intervene and to rectify each operating defect or irregularity which is due to fault of original design, manufacturing or material.

d. Commission and Trial Run

3.13. After Successful erection, each section shall be commissioned and the desired output.

3.14. The Contractor shall provide all consumables like hydraulic oil to commission the plant

3.15. The successful bidder shall operate the plant for a period of 3 years from the date of commissioning of the plant.

3.16. The Contractor shall provide training for a period of 30 days to the Authority staff/operation and maintenance contractor before the end of the contract.

4. Operation & Management Stage

a. Requirements

4.1. Operation and maintenance of the plant has to be done by the contractor for the period of 3 years as per condition of contract. All direct or indirect costs like manpower, fuel, electricity expenses, water supply, repair, maintenance, etc incurred for operation and maintenance of the plant has to be managed and incurred by the successful bidder.

4.2. Contractor shall provide operation and maintenance of the processing and treatment plant and scientific landfill site as per the SWM rules 2016 and CPHEEO manual on Municipal Solid Waste Management, 2016. All the guidelines issued by Govt of India, Govt of Maharashtra, CPCB and

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MPCB shall be applicable and contractor shall be responsible to abide with all the guidelines and norms, SWM rules 2016 and CPHEEO manual on SWM 2016 during the O&M period.

4.3. Contractor shall be responsible for provision of environmental monitoring as per prevailing environmental laws under ministry of Environment, Forest and climate change, Govt of India and CPCB, MPCB regulations for air, water and noise pollution. Contractor shall provide all necessary laboratory services to maintain the required environmental monitoring, quality and compliance services.

4.4. Contractor shall be responsible for production of compost fertilizer with standards as specified by FCO norms and Maharashtra state govt norms.

4.5. The Scope of Supply shall also cover the following, but not limited to:

4.5.1. The supply shall also include mounting arrangement on the concrete floor, providing all ladders, railings and walkways wherever necessary for day-to-day operations.

4.5.2. Providing standard tool for regular service and operation works.

4.6. Contractor is responsible for provision of all the necessary vehicles for waste management such as loaders, windrow turners, bulldozer or wheeled loaders, water sprinkler, Tippers or dumper trucks etc, skilled manpower required for successful operation and maintenance of processing and treatment plant and scientific landfill site on their own cost. If required, Authority may ask contractor to provide additional number of vehicles and manpower for successful operation and maintenance.

4.7. The Contractor shall be responsible for regular preventive maintenance of the systems and provide supply spares & consumables as a part of the Operation & Maintenance Contract for 3 years including the Warranty Period. The successful bidder shall operate the plant for a period of 3 years from the date of commissioning of the plant.

4.8. Since the defect liability period for machines is for 3 years, the contractor shall provide support for next 3 years after end of operation and maintenance period of 3 years. No additional expenditure is envisaged to the Authority towards regular maintenance during the 3 years. The maintenance will be on account of defect lability only. The wear and tear and defects due to mishandling of plant shall be taken care off by the operation and maintenance contractor at its own cost.

b. Approvals before commencement

4.9. The contractor before commencement will submit an operations and maintenance manual (O&M Manual) for the Project Facilities. The O&M Manual shall include-

4.9.1. Standard operating procedure (SOP) covering all aspects of provisioning O&M of movable and immovable infrastructure associated with this Project as per the SWM Rules, 2016 and other Applicable Laws

4.9.2. Maintenance schedule of regular maintenance for all Plant, machinery, equipment, civil infrastructure ("Maintenance Schedule") deployed for the purpose of the Project to ensure continued optimum performance. This schedule should also state the planned downtime of any electro-mechanical equipment machinery

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4.9.3. Manpower deployment plan, including the designation of key personnel for O&M
4.9.4. Consumables required for day-to-day operations
4.9.5. Energy consumption of the Unit
4.9.6. Spares required owing to regular wear and tear.

c. During Operation

4.10. The contractor shall process complete waste received at site. Construction and Demolition waste, Hazardous waste, Biomedical waste, E-waste not allowed to receive at processing site.

4.11. All the necessary arrangements for leachate management (collection, treatment/recycle/reuse) shall be provided by contractor.

4.12. The rejects/inerts from the processing should not be more than 15% of the total waste. The rejects/inerts shall be transported to landfill site and dispose it scientifically at Sukali site.

4.13. Contractor should not keep any kind of waste (Processed and Unprocessed) waste more than 3 days at processing site.

4.14. Quality of compost fertilizer should be as per FCO norms and contractor shall be responsible for its storage, marketing for selling the fertilizer.

4.15. The Authority shall depute a responsible person ("Authority Representative") to monitor the Processing of MSW as well as the operations of the weighbridges.

4.16. The contractor shall generate a "Monthly Weight Sheet" based on the Daily Weight Sheet and shall send it to the Authority for approval.

4.17. In the event the weighbridges are not operational, the weight of the MSW delivered at the Site during such time shall be measured by an appropriate alternate arrangement established by the Contractor and agreed to by the Authority. Contractor shall provide monitoring system with CCTV cameras and display system at processing plant.

4.18. Before lifting of landfill material, the contractor should obtain a monthly "Fit for Landfilling" certificate from the Authority based on the definition of Residual Inert Matter and Other Inert. The same material should be weighed before lifting.

d. Reporting

4.19. The contractor shall maintain records for the following activities at processing facilities in accordance with O&M requirements and provide daily, monthly, quarterly and annual reports of the same to the Authority along with any other sought from the authority
i. Data with regard to the incoming waste at Processing facility
ii. Data with regard to the Processing
iii. Data with regard to the quality and quantity of Inert Waste
iv. Quality reports- Environmental reports, lab reports on compost generated, leachate quality, air pollution, water pollution, noise pollution as per the prevailing environmental laws under Govt of India and Govt of Maharashtra.

4.20. Contractor shall abide to provide additional reporting to Authority required during the O&M stage.

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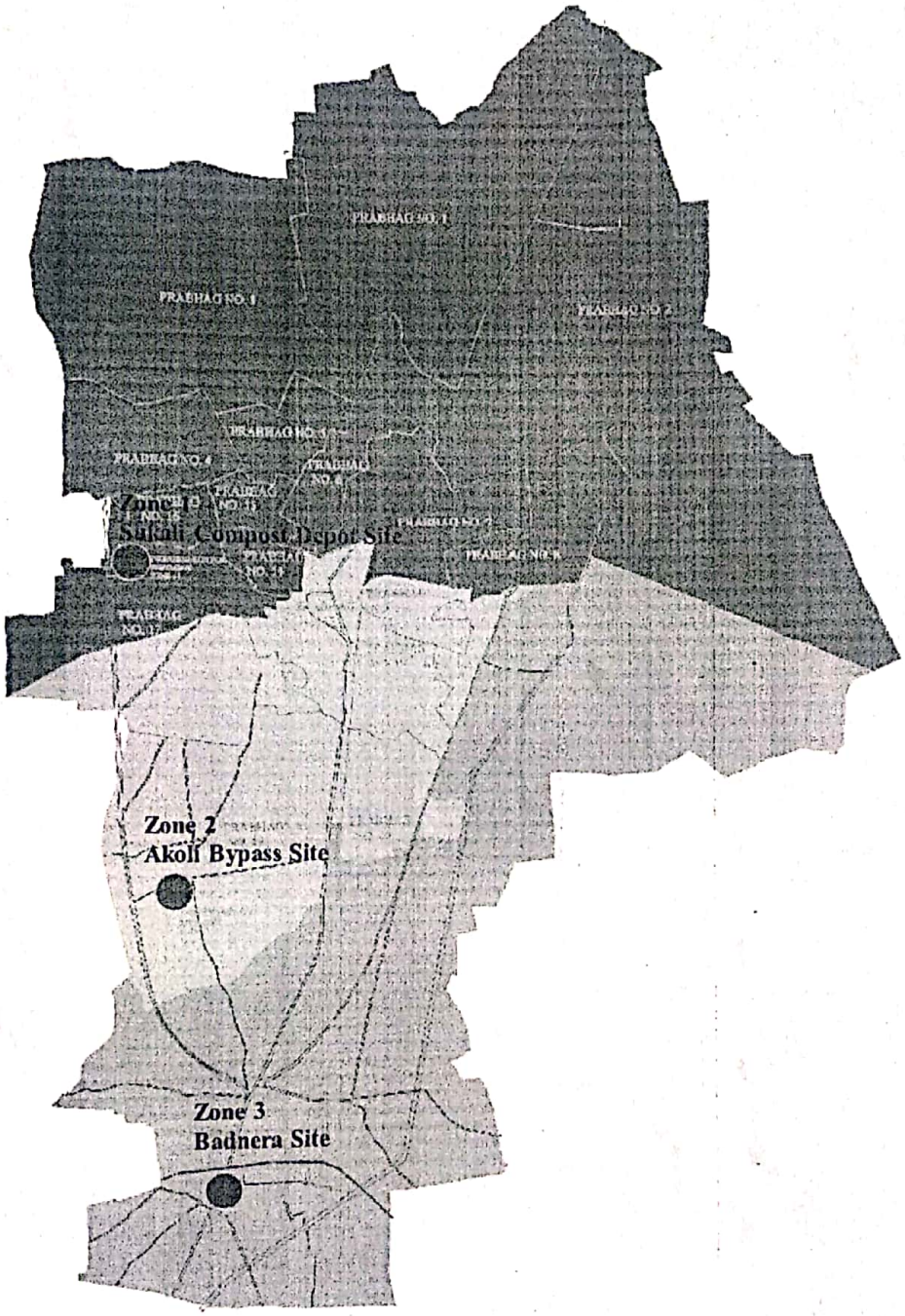
Annexure 1: Location of Proposed Processing Plant



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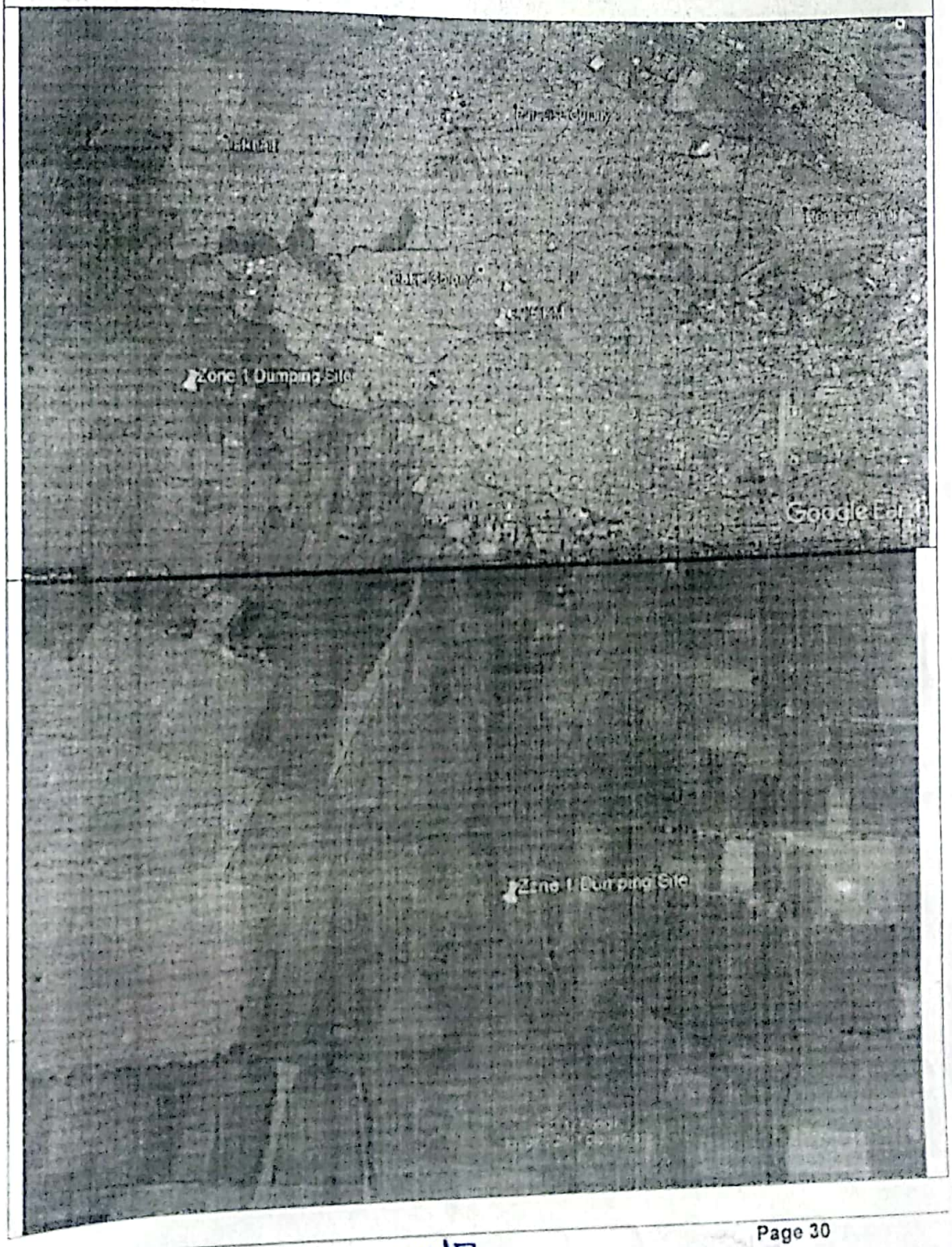
ZONE 1 SITE-SUKALI SITE



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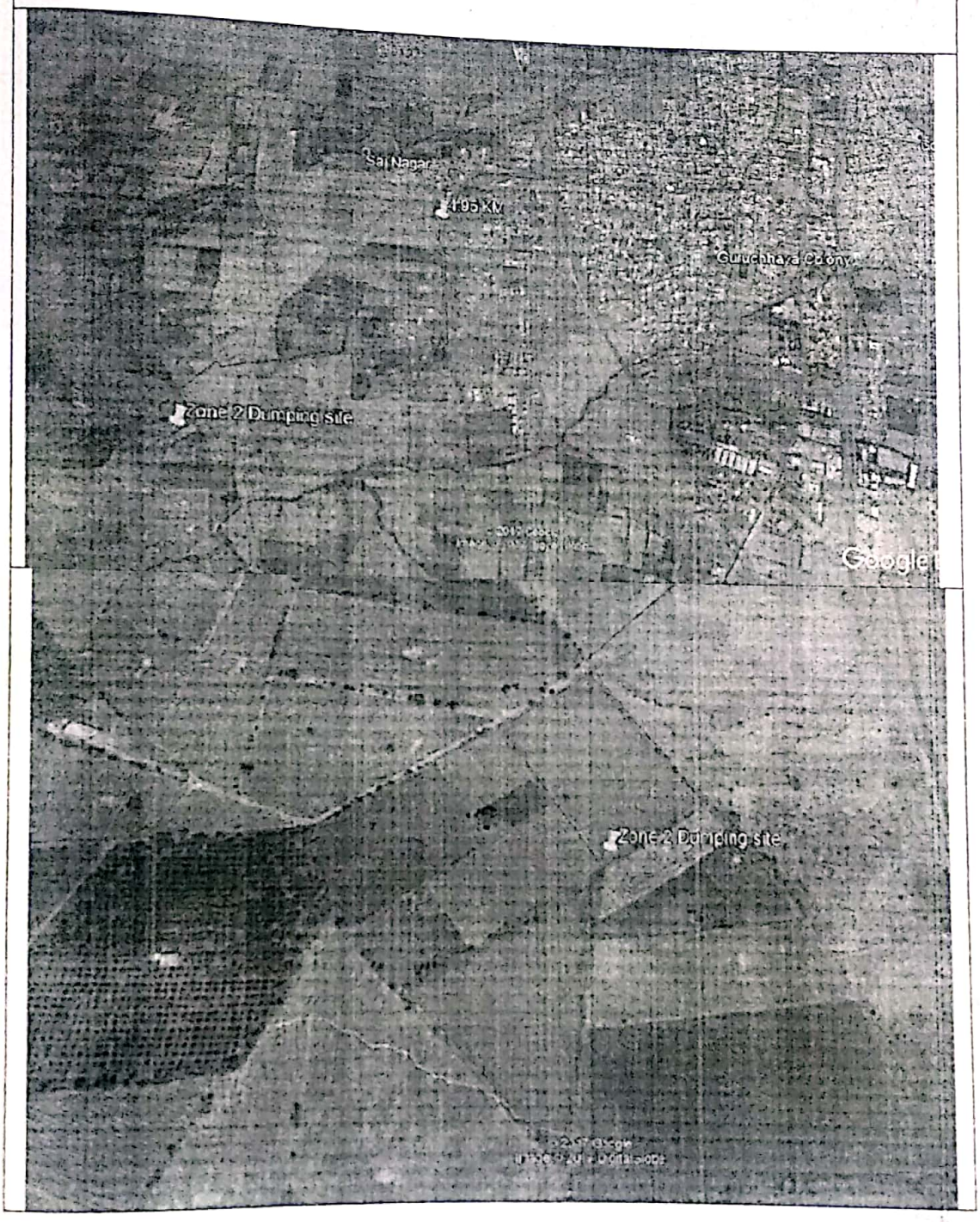
ZONE 2 SITE-AKOLI RING ROAD



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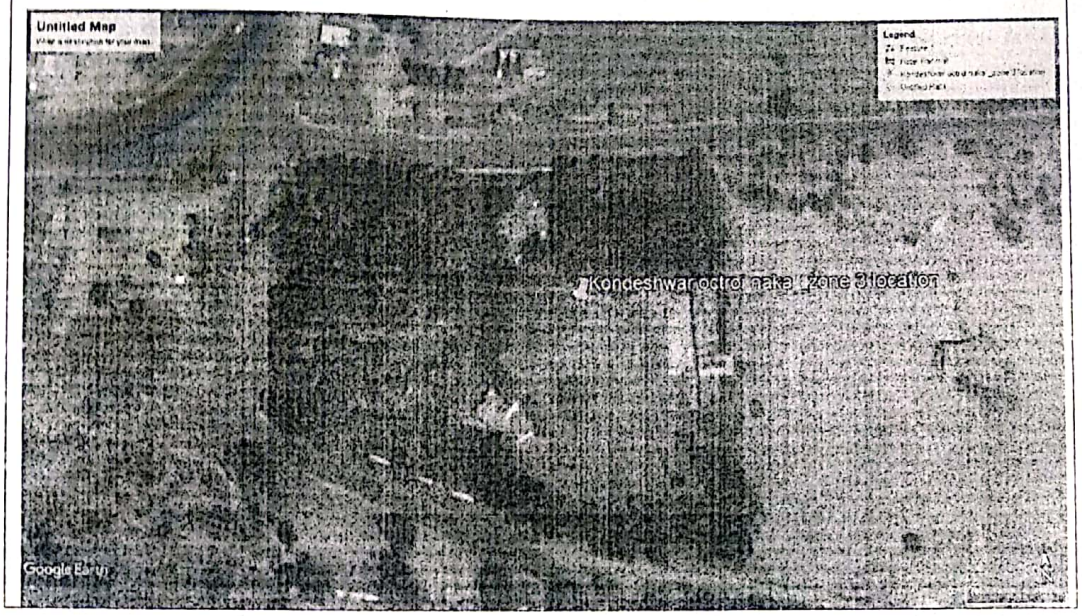
ZONE 3 SITE-KONDESHWAR OCTROI NAKA, BADNERA



Annexure 2: Process Design for proposed Processing Plant

It is proposed that biodegradable waste will be treated with the help of WINDROW technology followed by SCEENING, for getting quality manure. The following is the overview of the proposed processing system.

(i) Pre-processing of MSW: Pre-processing separates the material into different streams, which are suitable for specific products—biodegradable for composting, combustible dry material for RDF, separation of recyclable material etc. MSW received at the Processing plant is weighed at the weighbridge and then dumped at the proposed Dumping Yard. The waste at the Dumping yard should pre-sorted through a machine. The sorting machine should give Biodegradable Waste which will go for windrow composting, Non-biodegradable material which will be stored at the MRF Storage Shed and Reject which will be landfilled.

The following key Activities / Processes are proposed for the processing plant.

- Material Recovery Facility and sorting Facility (for Dry and Wet Waste)
- Windrow Composting (For Wet Waste consisting of Biodegradable)

[A] MATERIAL RECOVERY FACILITY (MRF) AND PRE-SORTING FACILITY

- **For Dry waste stream:** Dry segregated material is received in a mixed form consisting of a combination of fibres (paper, card board, mixed paper, magazines, etc.) and commingled containers (plastic, glass, metal, etc.), among other materials. The first stage of processing typically uses manual labour or equipment that separate material into various streams (fibre, paper, plastic, containers, etc.). These recyclables are also sorted by using automated machines when quantities to be handled are large. Below is a flowchart depicting the indicative MRF and pre-sorting facility dedicated to dry waste.

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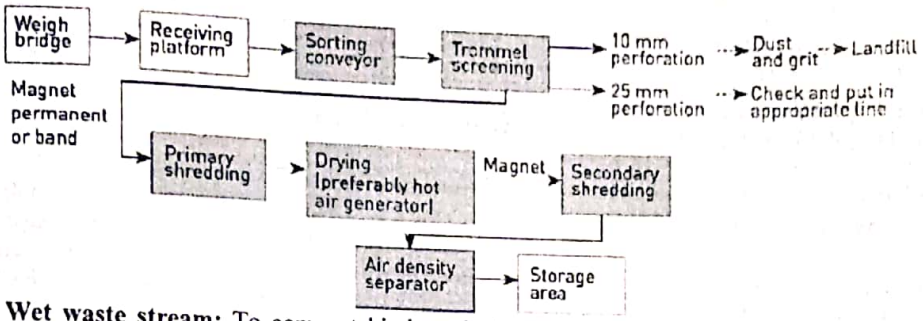
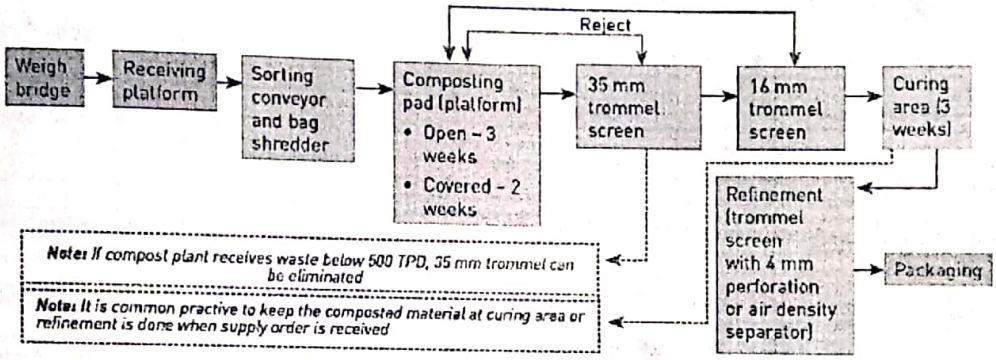


- **Wet waste stream:** To compost biodegradable or wet waste, the wet waste that is segregated either at the source should be further pre-processed before being placed in windrows. The pre-processing is carried out at the composting facility. Below is a flowchart depicting the indicative MRF and presorting facility dedicated to Wet waste.



MRF units employ varying combinations of manual and mechanical processes, based on the type of facility,
availability of equipment, labour availability, and associated cost implications. MRF units employing manual labour for sorting operations have relatively lower costs, but may also operate at lower efficiencies compared with mechanical sorting facilities. An MRF unit, depending on the level of complexity, will consist of a combination of units in varying degrees of mechanisation (as shown in above figure).

Pre-sorting: Bulky and contaminated wastes hamper further sorting or processing in the facility; mechanical or manual pre-sorting is essential to separate out these wastes. Manual sorting results in higher labour costs and lower processing rates. Manual sorters remove bulky waste as the waste passes along a conveyor belt, which carries the pre-sorted waste to the mechanised sorting unit of the facility.

Mechanical sorting: Mechanical processes based on principles of electromagnetics, fluid mechanics, pneumatics, etc. are used to segregate the different waste streams in the pre-sorted waste. Mechanical processes require specialised equipment for segregation of commingled municipal waste. Mechanical sorting typically employs the following processes:

- **Screening:** Screening achieves an efficient separation of particles into two or more size distributions. Two types of screens are used in MRF centres disc screens and trommels.
- **Ferrous metal separation:** In the second stage, electromagnets are used for separating heavy ferrous metals from mixed waste.
- **Air classification:** The residual waste stream is passed through an air stream with sufficient velocity to separate light materials from heavy material, specifically for separating out lightweight plastics and paper from the mixed stream. Three types of air classifiers may be employed: (i) horizontal air

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classifier, (ii) vibrating incline air classifier, and (iii) incline air classifier. Heavy or bulky plastics are sorted out either in the pre-processing line (manually) or in the "detect and routing" systems, employed at later stages of material recovery.

- **Non-ferrous metal separation:** The non-ferrous metal separator segregates zinc, aluminium, copper, lead, nickel, and other precious metal from commingled waste. An eddy current separator removes non-ferrous items from the commingled waste based on their electrical conductivity.
- **Detect and route system:** This system separates various grades of paper, plastics, and glass, which are not sorted out in the air classifier. This system works in two stages. The first stage employs programmed optical sensors to determine the nature of different materials. In the second stage, based on information received from the sensor, sorted material is routed to appropriate bins bidirectional air jets.
- **Size reduction:** Sorted materials after segregation are usually too large for further use or processing; they should be reduced to smaller sizes.
- **Baling:** Sorted and sized material is baled for further processing or use.

The following are the Different Processes or Stages and Equipment Employed in a Material Recovery Facility.

Process or stages	Available Equipment in Market
Pre-sorting material handling equipment	Belt conveyor, Screw conveyor, Apron conveyor, Bucket elevator, Drag conveyor, Pneumatic conveyor, Vibrating conveyor, Debagger etc.
Ferrous metal separation	Magnetic separator and screening
Screening	Disc Screening, Trommels
Air classification	Horizontal air classifier, Vibrating inclined air classifier, Inclined air classifier etc.
Non-ferrous metal separation	Rotating disk separator, Eddy current separator etc.
Size reduction	Can densifier, Can flattener, Glass crusher, Plastic granulator, Plastic perforator, Baler etc.
Pollution control	Dust collection system, Noise suppression devices, Odour control system, Heating, ventilating, and air conditioning (hvac)
Other fixed equipment	Fixed storage bin, Live-bottom storage bin, Floor scale for pallet or bin loads, Truck scale, Belt scale etc.

[B] WINDROW COMPOSTING

Windrow composting process consists of placing the pre-sorted feedstock in long narrow piles called windrows that are turned on a regular basis for boosting passive aeration. The turning operation mixes the composting materials and enhances passive aeration. The following are the units operational in windrow composting.

Compost pad (Windrow platform): The pre-processed MSW is transferred onto the compost pad into windrows. The compost pad is an area where the windrows are stacked. The compost pad must be stable, durable, and impervious, so it is constructed with an appropriately designed combination of reinforced cement concrete (RCC) and plain cement concrete (PCC). The compost pad shall have a slope of about 1% to drain the excess water (storm water or leachate) from the windrows into a leachate collection tank. The leachate tank is placed in the lowest corner of the compost pad area. This leachate should be reused for recirculation of nutrients and for maintaining the moisture content of windrows.

The following factors have to be considered in the location and design of the composting pad:

- The base has to provide a barrier to prevent the percolation of leachate and nutrients to the subsoil and groundwater.
- The surface has to facilitate equipment movement even during wet weather conditions.
- The surface area has to accommodate waste for 5 weeks, with sufficient room for equipment to maneuver and an area to establish a static pile for curing compost.

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महानगरपालिका, अमरावती

- The height to base width ratio of the windrow depends basically on the angle of repose of the material. Windrows are typically trapezoidal in cross section.
- The space between windrows should be sufficient for movement of the windrow turning machine. Normally, it is 1–3 meters.

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Annexure 3: Indicative Civil Works to be constructed for processing and treatment

Sr. No.	Description	Nos. / Size / Capacity		
		Zone 1 (A)	Zone 2 (B)	Zone 3 (C)
1.	Construction of Dumping Yard / Waste Receiving Platform	**For Dry Waste** 1 Nos. 24 M x 17 M =408 SQM **For Wet Waste** 1 Nos. 21 M x 16 M =336 SQM	**For Dry Waste** 1 Nos. 18 M x 13 M =234 SQM **For Wet Waste** 1 Nos. 16 M x 12 M =192 SQM	**For Dry Waste** 1 Nos. 10 M x 12 M =120 SQM **For Wet Waste** 1 Nos. 11 M x 9 M =99 SQM
2.	Construction of Windrow Platform / Compost Pad	43 Nos. 9 M x 33 M =12771 SQM	43 Nos. 9 M x 21 M =8127 SQM	43 Nos. 9 M x 11 M =4257 SQM
3.	Construction of MRF processing shed	1 Nos. 50 M x 16 M =800 SQM	1 Nos. 40 M x 16 M =640 SQM	1 Nos. 30 M x 16 M =480 SQM
4.	Others	As per BoQ & Specification attached		

Annexure 4: Indicative List of Civil Works for General Site development

Sr. No.	Description	Nos. / Size / Capacity		
		Zone 1 (A)	Zone 2 (B)	Zone 3 (C)
1.	Construction of Security & operating Room	2 Nos. 3 M x 3 M	2 Nos. 3 M x 3 M	2 Nos. 3 M x 3 M
2.	Construction of Toilet with Septic Tank	1 Nos. 2 M x 2 M	1 Nos. 2 M x 2 M	1 Nos. 2 M x 2 M
3.	Construction of Drainage Works (as per the requirement additionally to be provided by contractor)	210 RM	200 RM	200 RM
4.	Construction of Pavement Works (as per the requirement additionally to be provided by contractor)	200 RM	200 RM	200 RM
5.	Construction of Building Block	1 Nos. 3 M x 3 M	1 Nos. 3 M x 3 M	1 Nos. 3 M x 3 M

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7.	Arrangement of Water Supply Green Belt Development, Illumination, Safety Equipment, (as per the requirement additionally to be provided by contractor)	As per BoQ & Specification attached

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Annexure 5 : Indicative Plant & Machinery, vehicles & Equipments

Sr. No.	Particular	Nos. / Size /Capacity		
		Zone-1	Zone-2	Zone-3
1	Mechanized Sorting machine with pre-sorting and post sorting system which includes Belt Feeder/Hopper, Inclined Conveyor, Trommel with various sizes, Product Conveyor, Reject Conveyor, Sorting Conveyor, air density separators, magnetic separators, control panel etc.	200 TPD	100 TPD	50 TPD
2	Weighbridge (min capacity 25 T)-with electronic display and control room including civil works and operator room	1 NOS	1 NOS	1 NOS
3	Tractor 50 HP with front end loader attachment	4 NOS	4 NOS	3 NOS
4	Twin shaft shredding machine (10 MTPD)	5 NOS	5 NOS	2 NOS
5	Bailing Machine (10 MTPD)	5 NOS	5 NOS	2 NOS
6	Others	As per BoQ & Specification attached		

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Annexure 6 : Indicative List of Key Personnel to be deployed by the contractor

Sr. No.	Personnel	Qualification	During Construction Period	During Operation & Maintenance Period
1	Project Manager	B.E. Civil + 10 Years Exp. (5 Years as Manager)	1 Nos.	1 Nos.
2	Site Supervisor	B.E. Civil+ 5 Years Exp. **Or** Diploma Civil+ 10 Years Exp.	3 Nos.	3 Nos.
3	Plant Engineer	B.E. Mechanical + 5 Year Exp. **Or** Diploma Mechanical + 10 Year Exp.	1 Nos.	1 Nos.
4	Quantity Surveyor	B.E. Civil+ 7 Years Exp. **Or** Diploma Civil+ 10 Years Exp.	1 Nos.	-
5	Survey Engineer	B.E. Civil+ 4 Years Exp. **Or** Diploma Civil+ 8 Years Exp.	2 Nos.	-
6	Plant Operator	5 Year Experience machine operator	-	3 Nos.
		Total	8 Nos.	8 Nos.

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Annexure 7 : Indicative Schedule of Construction

Followingisthe schedule ofconstruction to beadoptedunderthis contract

S. No.	Brief Description	Supply (months)	Erection & commissioning (months)	Cumulative (months)
1	Civil work-dumping yard, windrow compost platform, MRF shed, General site developments-toilet blocks, security room, green belt development, pavement works, water supply etc.	----	----	4
2	Pre-sorting section-for processing and treatment	2	2	4
3	Post sorting section- for processing and treatment	4	2	6
4	Other equipment's and machineries	2	2	4

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Annexure-I: Provisional Completion Certificate

Name of Work:

Agreement No. _____ Date _____

Amount of Contract Rs _____

Quantity of Waste Processed _____ m3

.

Certified that the above-mentioned work was provisionally completed on (Date) and taken over on ..... (Date) and that I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Engineer-in-Charge

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Annexure-II: Final Completion Certificate

Name of Work:

Agreement No. _____ Date: _____

Name of Agency: _____

Certified that the above-mentioned work was physically completed on _____ (date) and taken over on_____(date) .

Agreement amount Rs. _____

Final amount paid to contractor Rs. _____ .

Quantity of Waste Processed _____ m3

Incumbency of officers for the work

I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Engineer-in-Charge

Ganga Trading Co.

Partner

D. LETTER OF ACCEPTANCE

(ENCLOSE COPY OF LOA)

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महानगरपालिका अमरावती.

शहर अभियंता
महानगरपालिका, अमरावती

Ganga Trading Co.

Partner

E. NIT AND REQUEST FOR PROPOSAL

(ENCLOSE NIT AND RFP ISSUED BY AMC)

Ganga Trading Co.

Partner

F. CONTRACTORS BID- TECHNICAL AND FINANCIAL

(ENCLOSE TECHNICAL AND FINANCIAL BID SUBMITTED BY SELECTED CONTRACTOR)

Ganga Trading Co.

Partner

-TRUE COPY-

अमरावती महानगर पालिका, अमरावती
बांधकाम विभाग

1077

ANNEXURE A-35

Tel : 0721-2579292, 2576469
Fax: 0721-2673950
website: http://www.amtcorp.org
E-Mail Id: amravaticorporation@yahoo.in

जा.क्र./अमनपा/बावि/श.अ./ 67 /2019 दि. 20 /09/2019

WORK ORDER

To,:

Mr Gopal Panpaliya;
M/S. Ganga Trading Company in JV with P.H.Jadhav,
Address of Ganga Trading Company;
C/o Vidarbha Tyres Building,
Mote Compound, Morshi Road,
Amravati-444 601

Subject: Work Order for the Work of "Design, supply, installation, erection, commissioning of municipal solid waste processing plant along with associated civil works at various locations in Amravati (with operation & maintenance for 3 years).

Reference:i. Acceptance of LoI issued for subject work dated on 09th September 2019
ii. Standing committee resolution number 61 dt. 12/09/2019 for the approval of financial offer.
iii. Agreement with Amravati MC for the subject work dated on 20/09/2019.

With respect to above subject and financial proposal submitted by your firm, M/S GANGA TRADING COMPANY (Lead member) In JV with P.H. JADHAV (Technical Partner), are L-1 in PART-A financial proposal with rate of Rs. 19,42,69,708.44/- (Excluding GST of 12% for civil works and Inclusive of applicable GST for plant and machineries) which is 11.06% below the estimate rate of Rs 21,84,27,826/- And also L-1 in PART-B financial proposal with tipping fees of Rs 332/- per Tonne including GST and other taxes.

Your bid for the work mentioned above has been accepted on behalf of the Amravati Municipal Corporation, at your bided offer as per scope of work given there in. Standing committee, AMC has given approval for your financial offer with resolution number 61 dated 12/09/2019.

Letter of Intent has been issued to you dated on 09th September 2019 and same has been accepted from you.

You, M/S GANGA TRADING COMPANY In JV with P.H. JADHAV have submitted performance security in the form of bank guarantee for the amount of Rs.01,09,21,391/- And Rs 44,99,613/-.

Agreement for the subject works has been executed on 20th September 2019.

We hereby issue work order for subject work and instruct you to start the works immediately with following instructions;

1. You shall execute the works as per the conditions of contract of the agreement executed for the subject work. Any delay in works or issues with performance shall lead to applicable penalty and liquidity damages as mentioned in the agreement.

2. All taxes, security deposits shall be deducted from every bill as per the applicable norms of Govt of India, PWD Department Govt of Maharashtra and Amravati Municipal Corporation respectively.
3. The time allowed for carrying out the construction work as in the agreement is **6 months** excluding rainy season, shall be reckoned from the date of signing the contract agreement.
4. Duration of operation and maintenance period is for 3 years after the completion of construction works as mentioned in the agreement.
5. You are instructed to execute the works as per SWM Rules 2016, CPHEEO manual for MSW 2016.
6. You are instructed to take all necessary NOCs, Environmental Clearance, Consents from respective government departments, MPCB and with respect to SWM Rules 2016, all applicable acts and regulations of Ministry of Environment Forest and Climate Change, Govt of India.
7. You are instructed to follow and responsible to work with respect to all applicable acts, rules, regulations issued by Govt of Maharashtra, Maharashtra Pollution Control Board, Ministry of Environment Forest and Climate Change (GoI) And National Green Tribunal (NGT).

Signing the contract agreement shall be reckoned as intimation to commencement of work. Therefore, after signing of the agreement, you are directed to contact Authority/Engineer-in-charge for taking the possession of site and necessary instructions to start the work.You are instructed to provide the acceptance of this Work Order within 7 days. Failure to provide acceptance of work order shall subject to cancellation of agreement.

(Ravindra M. Pawar)
City Engineer,
Amravati Municipal Corporation,
Amravati, Maharashtra.

Copy To;

1. The Hon'ble Commissioner, AMC for information.
2. The Hon'ble Deputy Commissioner (Gen), AMC for information.
3. The Hon'ble MoH, AMC-For Supervision of Operation and maintenance works after the completion of Civil, Mechanical and Electrical works in said project.
4. Shri. Madhukar Raut, Deputy Enggr. (Civil)- For execution and supervision of civil works as per schedule B and report to head office as per condition mentioned in agreement.
5. Shri. Laxman Pawade, Assistant Enggr.(Civil)-For execution and supervision of civil works as per schedule B and report to head office as per condition mentioned in agreement.
6. Shri. Shyamkant Topre, Deputy Enggr (Electrical)- For execution and super of electrical works of the project and report to head office as per condition mentioned in agreement.
7. Shri. Sharad Tinkhede, Asst Enggr (Electrical)- For execution and super of electrical works of the projectand report to head office as per condition mentioned in agreement.
8. Shri Mahonar N. Dhajekar, Deputy Enggr (Mechanical)- For execution and super of Mechanical works of the projectand report to head office as per condition mentioned in agreement.
9. Shri. Swapnil Jaswante, Junior Enggr (Mechanical)- For execution and super of Mechanical works of the projectand report to head office as per condition mentioned in agreement.
10. M/S. MaRS Planning & Engineering Services Pvt. Ltd.- For further action as per your agreement with AMC.

-TRUE COPY-

Received

MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 4010437/4020781
/4037124/4035273
Fax : 24044532/4024068 /4023516
Email : rohq@mpcb.gov.in

Kalpataru Point, 3rd & 4th floor,
Sion- Matunga Scheme Road No. 8,
Opp. Cine Planet Cinema, Near Sion Circle,
Sion (E),
Mumbai - 400 022

No: BO/MSWA/B-/CE-2001000004 **Date:** 01/01/2020

FORM -II
[See – Rule 16 (1)]

To,
The Municipal Commissioner,
Amravati Municipal Corporation,
Amravati.

Sub: Authorization under Solid Waste Management Rules, 2016.

Ref: Your online application for grant of authorization UAN No. MPCB-MSW_AUTH-0000000404 Dtd. 29/08/2019.

The **Maharashtra Pollution Control Board** after examining the proposal hereby authorizes **The Commissioner**, having administrative office at **Amravati Municipal Corporation, Amravati** to set up and operate integrated waste management facility including preprocessing for dry, windrow composting wet waste and Biogas for wet waste having capacity 200 MT/D at S. No. 155 and 156 Peth (Sakoli), Tal & Dist- Amravati on the terms and conditions (including the standards to be complied with) attached to this authorization.

1. The authorization is hereby granted to setup and operate the facility for processing, recycling, treatment and disposal of solid waste.
2. The Solid Waste Management authorization is valid for the period up to **31/01/2024.**
3. The authorization is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and the standards laid down in Schedules I and II under these rules.
4. The Maharashtra Pollution Control Board may at any time revoke any of the condition applicable under the authorization and shall communicate the same in writing.
5. Any violation of provisions of **Solid Waste Management Rules, 2016** attracts the penal provisions of the **Environment (Protection) Act, 1986 (29 of 1986).**
6. **This authorization is granted without prejudice or being prejudice of the order passed/ to be passed by Hon'ble High Court/NGT.**
7. The Corporation shall strictly follow the EIA Notification, 2006.

8. The Corporation shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.
9. The Corporation shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.
10. **Corporation shall provide Buffer Zone around the solid waste processing and disposal facility as per CPCB guidelines by carrying out study of area and solid waste management Rules, 2016.**
11. Corporation shall make an application for renewal of the Authorization at least 60 days before the date of the expiry of the Authorization.
12. This is issued with the approval of Consent Committee of the Board in its meeting held on 27/11/2019.

(E. Ravendiran, IAS)
Member Secretary

D. A. - Annexure- I

Copy f. w. cs-

The District Collector, Amravati - Being one of the implementing authorities having overall responsibility for the enforcement of the provisions of Solid Waste Management Rules, 2016, it is obligatory on your part to see that the Solid Waste is processed & disposed off in accordance with the said Rules.

Copy to:

1) **Regional Officer, MPCB, Amravati / Sub Regional Officer, MPCB, Amravati-1** - For necessary action and follow up.

2] Master File.

ANNEXURE –I

Terms & Conditions to Operate Municipal Solid Waste Processing/ Waste Disposal Facilities and sanitary landfill site at following location by **The Municipal Commissioner**, **Amravati Municipal Corporation**, **Amravati** as mention below.

1. 200 MT/ Day of Solid Waste generated shall be processed and disposed as below:

Sr. No	Operating Agency	Location of waste processing site	Municipal Waste	Method of Treatment
1.	Amravati Municipal Corporation, Amravati	S. No. 155 and 156 Peth (Sakoli), Tal & Dist-Amravati.	200.0 MT/Day	1. Preprocessing for dry, windrow composting for wet waste and Biogas for wet waste. 2. Segregated waste like Metal, Paper, Plastic etc. shall be disposed through rack pickers by sale for recycle. 3. The non- Biodegradable inert waste residues of waste processing facilities as well as pre- processing reject from waste processing facilities shall be disposed off by secured landfill.

Note :

1] The odour nuisance from the site can be controlled by periodic spraying of microbial culture or any suitable method.

2] At the initial stage of collection of Municipal solid Wastes the waste minimization and segregation shall be carried out at source to avoid burden on the waste processing site.

2. The municipal authority shall comply with these rules as per the implementation Schedule laid down in **Schedule I and II** as per Solid Waste Management Rules, 2016.

3. The corporation shall submit its annual report in Form-IV to Maharashtra Pollution Control Board and the Secretary-in-Charge of the Department of Urban Development of the concerned State or Union Territory in case of metropolitan city and to the Director of Municipal Administration or Commissioner of Municipal Administration or Officer in -Charge of Urban local bodies in the state in case of all other local bodies of state on or before the 30th day of June every year.

4. When an accident occurs of any municipal solid wastes collection, segregation, storage, processing, treatment and disposal facility or landfill site or during the transportation of such wastes, the municipal authorities shall forthwith report the accident in Form-VI to the Secretary In charge of the Urban Development. Department in metropolitan cities and to the District Collector in all other cases.

5. The inert generated during handling and processing of MSW shall be properly land filled at authorized site.

6. The municipal authority will have to abide by the provisions of Solid Waste Management Rules, 2016.

7. Tipper and Dumper shall be avoided. Closed body bins shall be used or compactor shall be used for MSW collections.

8. Raw waste material shall not be dumped/stored temporary at this site.

9. All recyclable material shall be segregated at source and before receiving at disposal site.

10. All mitigation measures like odour, smoke, fire, dust, nuisance etc. shall be taken by the corporation.

11. The gas **cleaning** system shall be installed with comprehensive scrubbing system and shall be analyzed monthly for parameters like PCBs,PAHs,Dioxins,Furans,H2S, CS2 etc.

12. The inert created during handling and processing of MSW shall be properly land filled at authorized site.

13. Environment Management Plan and Disaster Management Plan shall be prepared and implemented by the corporation.

14. Corporation shall submit Bank Guarantee of Rs. 5 lacs towards compliance of authorization conditions to the Board within 15 days period from issuance of this authorization, which will be valid for a period of five year.

15. Corporation shall implement the timely action plan for site selection, acquisition of land, treatment and processing of solid waste as per the Minutes of the Order dtd.2/4/2013 passed by Hon'ble High Court, Mumbai against the writ petition No.1740/1998.

16. The Corporation shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.

17. The Corporation shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.

18. This authorization is granted without prejudice or being prejudice of the order passed/ to be passed by Hon'ble High Court/NGT.

19. Corporation shall provide Buffer Zone around the solid waste processing and disposal facility as per CPCB guidelines by carrying out study of area and solid waste management Rules, 2016.

20. This is issued with the approval of Consent Committee of the Board in its meeting held on 27/11/2019.

(E. Ravendiran, IAS)
Member Secretary

Amravati Municipal corporation

-TRUE COPY-

ANNEXURE A-37

PHOTOGRAPHS OF CIVIL WORK UNDERTAKEN AT THE MRF SHADE OF MSW PLANT AT SUKALI

Railway line
60 m wide DP Road
Area reclaimed till Dec 2020
through biomining
Area-3.1 Ha

Shot on Y17
Vivo AI camera

-TRUE COPY-

Alfa-Therm
ALFA-THERM LIMITED
Head Office : 6, Community Centre, Mayapuri, Phase-I, New Delhi-110064 (INDIA)
Phone : 011- 41845222, 41545222, 28115396
E-mail : info@alfatherm.in Web Site : www.alfathermltd.com
CIN No. : U74899DL1994PLC056781

OHSAS 45001:2018
WE ADD VALUE
NABCB
QM 029
ISO 9001:2015

PRE-SORTING SECTION

(20 TPH CAPACITY SUITABLE FOR 200 TPD COMPOST PLANT)

S.No.	EQUIPMENT DESCRIPTION	SIZES (Length x Width)	QTY.(In Nos.)
1	Feed Conveyor	14 mtr x 1 mtr	01
2	Tromell 100 mm	7.25 mtr x Dia 2.25 mtr	01
3	Accept Conveyor <100 mm	13 mtr x 1 mtr	01
4	Reject conveyor >100 mm	8 mtr x 1 mtr	01
5	Electrical Control Panel with cabling	Provided separately for this Section	01

For Alfa Therm Limited

Alfa-Therm
ALFA-THERM LIMITED
Head Office : 6, Community Centre, Mayapuri, Phase-I, New Delhi-110064 (INDIA)
Phone : 011- 41845222, 41545222, 28115396
E-mail : info@alfatherm.in Web Site : www.alfathermltd.com
CIN No. : U74899DL1994PLC056781

OHSAS 45001:2018
NABCB
WE ADD VALUE
ISO 9001:2015

PREPARATORY SECTION

(10 TPH CAPACITY SUITABLE FOR 200 TPD COMPOST PLANT)

S.No.	EQUIPMENT DESCRIPTION	SIZES (Length x Width)	QTY. (nos.)
1	Feeding Conveyor	13 mtr x 1 mtr	01
2	Tromell 35 mm	7 mtr x Dia 2 mtr	01
3	Accepts conveyor <35 mm	18 mtr x 0.8 mtr	01
5	Rejects Conveyor >35 mm	8 mtr x 0.8 mtr	01
6	Tromell 16 mm	7 mtr x Dia 2 mtr	01
7	Accepts conveyor <16 mm	17 mtr x 0.8 mtr	01
8	Rejects Conveyor >16 mm	8 mtr x 0.8 mtr	01
9	Electrical Control Panel	Provided separately for this section	01

For Alfa Therm Limited

Alfa-Therm
ALFA-THERM LIMITED
Head Office : 6, Community Centre, Mayapuri, Phase-I, New Delhi-110064 (INDIA)
Phone : 011- 41845222, 41545222, 28115396
E-mail : info@alfatherm.in Web Site : www.alfathermltd.com
CIN No. : U74899DL1994PLC056781

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NABCB
QM 029
ISO 9001:2015

FINISHING SECTION

(5-7.5 TPH CAPACITY SUITABLE FOR 200 TPD COMPOST PLANT)

S.No.	EQUIPMENT DESCRIPTION	SIZES (Length x Width)	QTY (nos.)
1	Feeding Conveyor	13 mtr x 0.8 mtr	01
2	Tromell 4 mm	6 mtr x Dia 1.8 mtr	01
3	Accepts conveyor <4 mm	18 mtr x 0.6 mtr	01
4	Rejects Conveyor >4 mm	6 mtr x 0.6 mtr	01
5	Electrical Control Panel	Provided separately for this section	01

For Alfa Therm Limited

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MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 4010437/4020781
/4037124/4035273
Fax : 24044532/4024068 /4023516
Email : rohq@mpcb.gov.in

Kalpataru Point, 3rd & 4th floor,
Sion- Matunga Scheme Road No. 8,
Opp. Cine Planet Cinema, Near Sion Circle,
Sion (E),
Mumbai - 400 022

No: BO/MSWA/B- 2003000011 **Date:** 11 / 3 / 2020

FORM -II
[See – Rule 16 (1)]

To,
The Municipal Commissioner,
Amravati Municipal Corporation,
Amravati.

Sub: Authorization under Solid Waste Management Rules, 2016.

Ref: Your online application for grant of authorization UAN No. MPCB-MSW_AUTH-0000000409 Dtd. 29/08/2019.

The **Maharashtra Pollution Control Board** after examining the proposal hereby authorizes **The Commissioner**, having administrative office at **Amravati Municipal Corporation, Amravati** to set up and operate waste management facility including preprocessing for dry waste, windrow composting of wet waste having capacity 100 MT/D at Plot No. 01 and 03 under sheet No. 26B Mauja- Akoli Ring Road, Badnera, Tal & Dist- Amravati on the terms and conditions (including the standards to be complied with) attached to this authorization.

1. The authorization is hereby granted to setup and operate the facility for processing, recycling, treatment and disposal of solid waste.
2. The Solid Waste Management authorization is valid for the period up to **31/01/2024.**
3. The authorization is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and the standards laid down in Schedules I and II under these rules.
4. The Maharashtra Pollution Control Board may at any time revoke any of the condition applicable under the authorization and shall communicate the same in writing.
5. Any violation of provisions of **Solid Waste Management Rules, 2016** attracts the penal provisions of the **Environment (Protection) Act, 1986 (29 of 1986).**
6. **This authorization is granted without prejudice or being prejudice of the order passed/ to be passed by Hon'ble High Court/NGT.**
7. The Corporation shall strictly follow the EIA Notification, 2006.

8. The Corporation shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.
9. The Corporation shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.
10. Corporation shall provide Buffer Zone around the solid waste processing and disposal facility as per CPCB guidelines by carrying out study of area and solid waste management Rules, 2016.
11. Corporation shall make an application for renewal of the Authorization at least 60 days before the date of the expiry of the Authorization.
12. This is issued with the approval of Consent Committee of the Board in its meeting held on 14/02/2020.

(E. Ravendiran, IAS)
Member Secretary

D. A. - Annexure- I

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The District Collector, Amravati - Being one of the implementing authorities having overall responsibility for the enforcement of the provisions of Solid Waste Management Rules, 2016, it is obligatory on your part to see that the Solid Waste is processed & disposed off in accordance with the said Rules.

Copy to:

1) **Regional Officer, MPCB, Amravati / Sub Regional Officer, MPCB, Amravati-1** - For necessary action and follow up.

2] Master File.

ANNEXURE –I

Terms & Conditions to Operate Municipal Solid Waste Processing/ Waste Disposal Facilities and sanitary landfill site at following location by **The Municipal Commissioner**, **Amravati Municipal Corporation**, **Amravati** as mention below.

1. 100 MT/ Day of Solid Waste generated shall be processed and disposed as below:

Sr. No	Operating Agency	Location of waste processing site	Municipal Waste	Method of Treatment
1.	Amravati Municipal Corporation, Amravati	Plot No. 01 and 03 under sheet No. 26B Mauja Akoli Ring Road, Badnera, Tal & Dist- Amravati	100.0 MT/Day	1. Preprocessing for dry waste, windrov composting of wet waste. 2. Segregated waste like Metal, Paper Plastic etc. shall be disposed through rack pickers by sale for recycle. 3. The non- Biodegradable inert waste residues of waste processing facilities as well as pre- processing reject from waste processing facilities shall be disposed off by secured landfill.

Note :

1] The odour nuisance from the site can be controlled by periodic spraying of microbial culture or any suitable method.

2] At the initial stage of collection of Municipal solid Wastes the waste minimization and segregation shall be carried out at source to avoid burden on the waste processing site.

2. The municipal authority shall comply with these rules as per the implementation Schedule laid down in **Schedule I and II** as per Solid Waste Management Rules, 2016.

3. The corporation shall submit its annual report in Form-IV to Maharashtra Pollution Control Board and the Secretary-in-Charge of the Department of Urban Development of the concerned State or Union Territory in case of metropolitan city and to the Director of Municipal Administration or Commissioner of Municipal Administration or Officer in -Charge of Urban local bodies in the state in case of all other local bodies of state on or before the 30th day of June every year.

4. When an accident occurs of any municipal solid wastes collection, segregation, storage, processing, treatment and disposal facility or landfill site or during the transportation of such wastes, the municipal authorities shall forthwith report the accident in Form-VI to the Secretary In charge of the Urban Development. Department in metropolitan cities and to the District Collector in all other cases.

5. The inert generated during handling and processing of MSW shall be properly land filled at authorized site.

6. The municipal authority will have to abide by the provisions of Solid Waste Management Rules, 2016.

7. Tipper and Dumper shall be avoided. Closed body bins shall be used or compactor shall be used for MSW collections.

8. Raw waste material shall not be dumped/stored temporary at this site.

9. All recyclable material shall be segregated at source and before receiving at disposal site.

10. All mitigation measures like odour, smoke, fire, dust, nuisance etc. shall be taken by the corporation.

11. The gas cleaning system shall be installed with comprehensive scrubbing system and shall be analyzed monthly for parameters like PCBs,PAHs,Dioxins,Furans,H2S, CS2 etc.

12. The inert created during handling and processing of MSW shall be properly land filled at authorized site.

13. Environment Management Plan and Disaster Management Plan shall be prepared and implemented by the corporation.

14. Corporation shall submit Bank Guarantee of Rs. 5 lacs towards compliance of authorization conditions to the Board within 15 days period from issuance of this authorization, which will be valid for a period of five year.

15. Corporation shall implement the timely action plan for site selection, acquisition of land, treatment and processing of solid waste as per the Minutes of the Order dtd.2/4/2013 passed by Hon'ble High Court, Mumbai against the writ petition No.1740/1998.

16. The Corporation shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.

17. The Corporation shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.

18. This authorization is granted without prejudice or being prejudice of the order passed/ to be passed by Hon'ble High Court/NGT.

19. Corporation shall provide Buffer Zone around the solid waste processing and disposal facility as per CPCB guidelines by carrying out study of area and solid waste management Rules, 2016.

20. This is issued with the approval of Consent Committee of the Board in its meeting held on 14/02/2020.

(E. Ravendiran, IAS)
Member Secretary

Principal

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Shot on Y17
Vivo AI camera

Shot on Y17
Vivo AI camera

-TRUE COPY-

MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 4010437/4020781
/4037124/4035273
Fax : 24044532/4024068 /4023516
Email : rohq@mpcb.gov.in

Kalpataru Point, 3rd & 4th floor,
Sion- Matunga Scheme Road No. 8,
Opp. Cine Planet Cinema, Near Sion Circle,
Sion (E),
Mumbai - 400 022

No: BO/MSWA/B- 2003000010 **Date:** 11 / 3 / 2021

FORM -II
[See – Rule 16 (1)]

To,
The Municipal Commissioner,
Amravati Municipal Corporation,
Amravati.

Sub: Authorization under Solid Waste Management Rules, 2016.

Ref: Your online application for grant of authorization UAN No. MPCB-MSW_AUTH-0000000426 Dtd. 29/08/2019.

The **Maharashtra Pollution Control Board** after examining the proposal hereby authorizes **The Commissioner**, having administrative office at **Amravati Municipal Corporation, Amravati** to set up and operate waste management facility including preprocessing for dry waste, windrow composting of wet waste having capacity 50 MT/D at Survey No. 110, Kondeshwar naka, Badnera, Tal & Dist- Amravati on the terms and conditions (including the standards to be complied with) attached to this authorization.

1. The authorization is hereby granted to setup and operate the facility for processing, recycling, treatment and disposal of solid waste.
2. The Solid Waste Management authorization is valid for the period up to **31/01/2024.**
3. The authorization is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and the standards laid down in Schedules I and II under these rules.
4. The Maharashtra Pollution Control Board may at any time revoke any of the condition applicable under the authorization and shall communicate the same in writing.
5. Any violation of provisions of **Solid Waste Management Rules, 2016** attracts the penal provisions of the **Environment (Protection) Act, 1986 (29 of 1986).**
6. **This authorization is granted without prejudice or being prejudice of the order passed/ to be passed by Hon'ble High Court/NGT.**
7. The Corporation shall strictly follow the EIA Notification, 2006.

8. The Corporation shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.
9. The Corporation shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.
10. Corporation shall provide Buffer Zone around the solid waste processing and disposal facility as per CPCB guidelines by carrying out study of area and solid waste management Rules, 2016.
11. Corporation shall make an application for renewal of the Authorization at least 60 days before the date of the expiry of the Authorization.
12. This is issued with the approval of Consent Committee of the Board in its meeting held on 14/02/2020.

(E. Ravendiran, IAS)
Member Secretary

D. A. - Annexure- I

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The District Collector, Amravati - Being one of the implementing authorities having overall responsibility for the enforcement of the provisions of Solid Waste Management Rules, 2016, it is obligatory on your part to see that the Solid Waste is processed & disposed off in accordance with the said Rules.

Copy to:

1) **Regional Officer, MPCB, Amravati / Sub Regional Officer, MPCB, Amravati-1** - For necessary action and follow up.

2] Master File.

ANNEXURE –I

Terms & Conditions to Operate Municipal Solid Waste Processing/ Waste Disposal Facilities and sanitary landfill site at following location by **The Municipal Commissioner**, **Amravati Municipal Corporation**, **Amravati** as mention below.

1. 50 MT/ Day of Solid Waste generated shall be processed and disposed as below:

Sr. No	Operating Agency	Location of waste processing site	Municipal Waste	Method of Treatment
1.	Amravati Municipal Corporation, Amravati	Survey No. 110, Kondeshwar naka, Badnera, Tal & Dist- Amravati	50.0 MT/Day	1. Preprocessing for dry waste (RDF windrow composting of wet waste. 2. Segregated waste like Metal, Paper Plastic etc. shall be disposed throug rack pickers by sale for recycle. 3. The non- Biodegradable inert wast residues of waste processing facilitie as well as pre- processing reject fron waste processing facilities shall b disposed off by secured landfill.

Note :

1] The odour nuisance from the site can be controlled by periodic spraying of microbial culture or any suitable method.

2] At the initial stage of collection of Municipal solid Wastes the waste minimization and segregation shall be carried out at source to avoid burden on the waste processing site.

2. The municipal authority shall comply with these rules as per the implementation Schedule laid down in **Schedule I and II** as per Solid Waste Management Rules, 2016.

3. The corporation shall submit its annual report in Form-IV to Maharashtra Pollution Control Board and the Secretary-in-Charge of the Department of Urban Development of the concerned State or Union Territory in case of metropolitan city and to the Director of Municipal Administration or Commissioner of Municipal Administration or Officer in -Charge of Urban local bodies in the state in case of all other local bodies of state on or before the 30th day of June every year.

4. When an accident occurs of any municipal solid wastes collection, segregation, storage, processing, treatment and disposal facility or landfill site or during the transportation of such wastes, the municipal authorities shall forthwith report the accident in Form-VI to the Secretary In charge of the Urban Development. Department in metropolitan cities and to the District Collector in all other cases.

5. The inert generated during handling and processing of MSW shall be properly land filled at authorized site.

6. The municipal authority will have to abide by the provisions of Solid Waste Management Rules, 2016.

7. Tipper and Dumper shall be avoided. Closed body bins shall be used or compactor shall be used for MSW collections.

8. Raw waste material shall not be dumped/stored temporary at this site.

9. All recyclable material shall be segregated at source and before receiving at disposal site.

10. All mitigation measures like odour, smoke, fire, dust, nuisance etc. shall be taken by the corporation.

11. The gas cleaning system shall be installed with comprehensive scrubbing system and shall be analyzed monthly for parameters like PCBs,PAHs,Dioxins,Furans,H2S, CS2 etc.

12. The inert created during handling and processing of MSW shall be properly land filled at authorized site.

13. Environment Management Plan and Disaster Management Plan shall be prepared and implemented by the corporation.

14. Corporation shall submit Bank Guarantee of Rs. 5 lacs towards compliance of authorization conditions to the Board within 15 days period from issuance of this authorization, which will be valid for a period of five year.

15. Corporation shall implement the timely action plan for site selection, acquisition of land, treatment and processing of solid waste as per the Minutes of the Order dtd.2/4/2013 passed by Hon'ble High Court, Mumbai against the writ petition No.1740/1998.

16. The Corporation shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Urban Development.

17. The Corporation shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Urban Development and updated from time to time.

18. This authorization is granted without prejudice or being prejudice of the order passed/ to be passed by Hon'ble High Court/NGT.

19. Corporation shall provide Buffer Zone around the solid waste processing and disposal facility as per CPCB guidelines by carrying out study of area and solid waste management Rules, 2016.

20. This is issued with the approval of Consent Committee of the Board in its meeting held on 14/02/2020.

(E. Ravendiran, IAS)
Member Secretary

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- 8 JAN 2003

100 Rs.

ANNEXURE A-42

1099

240E 23.7.2003 ₹3,900

प्रतिज्ञापत्र देणेबाबत स्टॅम्प विक्रेता यांचे नांव व सही

उपकोषागार अधिकारी,
कोषागार कार्यालय, अमरावती.

SSSuSSS. JAJU
Stamp Vender
At Amravati.
Licence No. 1992

AGREEMENT

THIS AGREEMENT OF AGENCY is made and executed on this 24 th Day of January, 2003 by and between -

Municipal Corporation, Amravati by its Deputy Commissioner, Municipal Corporation, Rajkamal Chowk, Amravati, hereinafter referred to as the "SAID CORPORATION" (which expression unless repugnant to the context, shall mean and include all its successors, executors, administrators and assigns) being the party of *FIRST PART;*

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AND

Global Ecosave System, by Dr. Anil Premachand Harwani, aged about 40 years, resident of Rajapeth, Amravati, Tq. & Dist. Amravati - hereinafter referred to as the "AGENT/OPERATOR" (which expression unless repugnant to the context, shall mean and include all his legal heirs, successors, executors and assigns) being the party of *SECOND PART*;

WHEREAS the Central Government as well as Government of Maharshtra has declared the State of Maharashtra as Pollution Prohibited area and for the purpose of collection, Transportation, Treatment and disposal of Biomedical Waste (which is hereinafter referred to as the "**Said Purpose**") have framed Biomedical Waste (Management & Handling) Rules, 1998 amended in the year 2000, (which are hereinafter referred to as the "**Said Rules**") and also promulgated Ordinances on 20th July, 1998 and 2nd June, 2000 for the said purpose (which are hereinafter collectively referred to as the "**Said Ordinances**") and in pursuance of which, the Municipal Corporations throughout Maharashtra, including the Municipal Corporation, Amravati has been directed to dispose of the Biomedical Waste generating within the Municipal limits of Amravati including from all types of Medical Hospitals, Dispensaries, blood Banks, Pathology Laboratories, Eye bank, Science, Medical & Veterinary Colleges & Hospitals, Dental Clinics & Colleges, Slaughter Houses, Research Institutes, Milk Banks, Organ Transplant Centre etc. (which are hereinafter referred to as the "**occupiers**"), as defined under said rules and ordinance, and

WHEREAS as per the said Rules and said Ordinances, the occupiers are responsible for segregating and storing the Biomedical waste generating from the premises of the respective occupiers in the colour coded bags and to dispose of the same at their cost by giving treatment to it within the time stipulated under the said Rules and said Ordinances and as the said occupiers have failed to do so, the Corporation is required under the said Rules and Ordinances and directions issued by the Government as well as the Maharashtra Pollution Control Board, to take the responsibility of collecting, transporting, treating and disposing of the said Biomedical waste either by itself or by appointing an Agent/Operator at the cost

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to be recovered from the said occupiers and for which it is incumbent on all the occupiers to get themselves registered with Municipal Corporation by paying Rs.500/- as non-refundable fee, and

WHEREAS the said occupiers are under obligation to pay the cost for collecting, transporting and disposal of Biomedical Waste generating from the premises of the occupiers on or before 15th Day of each month as and by way of service charges which is hereinafter referred to as the "**said service charges**" and in case of default, the said occupiers are liable to pay interest at the rate of 18% p.a. on the defaulted amount, and

WHEREAS the said Rules and said ordinances are to be implemented under the control, supervision and directions of the Maharashtra Pollution Control board which is binding on all the occupiers who are in turn required to obtain authorisation from the said Pollution Control board for the said purpose, and

WHEREAS looking to the manpower, funds and intricacies required for implementing the said Rules and ordinances for setting up bio-medical waste treatment facility, it is not possible for the Municipal Corporation to implement the said Rules and Ordinances on it's own and as such, the Municipal Corporation, Amravati has decided to appoint the party of Second Part as it's "operator of bio-medical waste facility" (which is hereinafter referred to as the "**Said Agent/Operator**") who inturn will setup "Bio-Medical Waste treatment facility" (which are hereinafter referred to as the "**Said Facility**") as per said ordinance and rule for the said purpose of collecting, transporting, treating and disposing of bio-medical waste as per the said rule and said ordinance, and

WHEREAS the general Body of Municipal Corporation, Amravati in it's meeting held on 19.10.2002 vide Resolution No.64, resolved to appoint an Agent/operator for the purpose of collection, transportation, treatment and disposal of bio medical waste in pursuance of the said rules and said ordinances by framing a scheme, and

WHEREAS the standing committee of Municipal Corporation, Amravati vide Resolution No.215 passed in it's meeting held on 17.1.2003 has resolved to

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appoint the party of Second Part as it's Agent/operator (hereinafter referred to as the "Operator/Agent") for the purpose of implementing the said Rules and said Ordinances and the directions which may be issued from time to time by the Maharashtra Pollution Control Board by setting up Bio-medical waste disposal treatment facility on the following terms and conditions;

NOW THEREFORE THIS AGREEMENT OF AGENCY WITNESSETH AS UNDER :

1. In consideration of the premises mentioned hereinabove for the purpose of implementing the said Rules and the said Ordinances and amendment thereto from time to time and rules which may be enacted, the Municipal Corporation, Amravati appoints for a period of 30(thirty) years from the date of this agreement, the party of Second Part as it's Agent/Operator, for collecting, transporting, treatment and disposing of the Biomedical waste generating from the premises of respective occupiers falling within the limits of Municipal Corporation, Amravati.

2. That the said facility will be run on the built operate and own basis by the agent/operator at his cost for the period of this agreement.

3. That operator/agent has deposited Rs.2 lacs with the corporation as and by way of security deposit, for due performance of terms and conditions of this agreement, which shall be refundable after the expiry of contract period i.e. 30 years and the said amount will not carry any interest.

4. The Agent/Operator shall follow the said Rules and said Ordinances and amendments made thereto and also will follow the rules which may be enacted and amended in this respect from time to time and shall also follow all the directions and guidelines issued by the Department of Forest & Environment, Govt. of India, New Delhi and all the directions issued by the Maharashtra Pollution Control Board or any other competent authority including the Corporation for the purpose of collection, transportation, treatment and disposal of the Biomedical waste.

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5. That for the purpose of setting up the said facility, the Agent/Operator shall make use of his own land at his cost (which is hereinafter referred to as the "said land") and it shall be responsibility of the Agent to get the "said land" and "said facility" authorised from the Maharashtra Pollution Control Board or any other competent authority at his cost.

The corporation shall issue necessary certificate, letter to the concerned authorities required for conversion of said land and for using the said land for the said purpose.

6. That the Agent/Operator shall set up and start the working of the said facility on or before 1.5.2003 at his cost. However, on or before 1.3.2003, the Agent/Operator shall start collecting, transporting, treating and disposing the Biomedical waste by other alternative modes as prescribed in the said Rules and said Ordinances for the period maximum upto 31.4.2003 as since 1.5.2003 will start working of said facility.

7. That the Agent/Operator will at his cost set up the said facility by bringing on the said land all the machineries, equipments, apparatus, and chemicals as prescribed by the said Rules and said Ordinances and directions issued from time to time by the Maharashtra Pollution Control Board and any other competent authority including the Corporation which will include setting up Incinerator with minimum capacity of 100 Kg. per hour, Autoclave, Shredder and especially prescribed vehicles for the purpose of transportation of Biomedical waste from the premises of respective occupiers upto the said land at his cost. That the Agent shall also incur all the expenses for setting up the security room and other facilities on the said land. That the Agent shall at his cost make changes, improvements in the said facility from time to time as will be directed by the competent authority, Maharashtra Pollution Control Board and amendments which may be made from time to time to the said Rules and said Ordinances including by enactment of new Ordinances and new Rules.

Surnde

Anil Pharwar

8. The Agent/Operator shall erect infrastructure for development of the said land and said facility at his cost and will also make arrangements of taking energy connection, make provision of water and approach road at his cost. The

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Agent/Operator shall also implant trees on and around the said land as per the said Rules and said Ordinances, at his cost.

9. That the end product which will be the out come of the treatment from the said facility will be disposed of by the Agent by secured land filling at his cost and on his own land.

10. That it is the responsibility and liability of the respective occupier to segregate, pack and store the Biomedical waste at their cost the specified place in the outskirts of his premises in the colour coded bags prescribed and specified by the said Rules and said Ordinances and the Agent shall collect, transport, treat and dispose of such Biomedical waste which has been so segregated, packed and stored as per the specifications.

11. The operator shall liable to pay 3% of his gross collection as and by way of royalty and the said amount shall be payable at the end of every financial year.

12. That the Agent/Operator shall keep the standard for running and maintaining the said facility as prescribed by the said Rules and will submit periodical reports as prescribed by the said Rules and said Ordinances to the competent authorities.

13. That the Agent shall be entitled to recover and the occupiers shall be liable to pay the services charges to the agent, at the specified rates mentioned in the Schedule annexed to this agreement which is part and parcel of this agreement and the Indoor Hospitals having upto 5 beds will be liable to pay minimum service charges of Rs.350/- per month, on or before 15th day of every month and in case of default or delay in payment of such service charges, the Agent shall be entitled to recover interest at the rate of 18% per annum from the date of default till date of payment from the defaulting occupiers. That in case if any of the occupiers neglects or fails to pay or makes default in payment of the service charges, then in that event, the Agent/operator shall be entitled to recover the said amount along with interest thereon as and by way of tax by resorting to all the provisions of B.P.M.C. Act and Rules thereunder including by making a reference

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to the Corporation as well as to the Maharashtra Pollution Control Board for cancellation of the licence/authorisation/no objection for carrying on any activities by the defaulting occupier in his premises for non-payment of service charges and upon making such reference by the agent/operator, the Corporation shall act promptly and maximum within one month for cancellation of licence/authorisation/NOC of such defaulting occupiers for non-payment of service charges.

14. The Agent/Operator will not be entitled to levy any charges for collection, transportation, treatment and disposal of Biomedical waste generating from the premises of Health Centres, Dispensaries, and Hospitals run by the Municipal Corporation and three (3) Urban Health Centres/Posts viz. Vanita Samaj, Amravati, Sanjivani Rugnalaya and Young Muslim Social Association.

Similarly, the Agent/Operator shall collect, transport, treat and dispose of the Biomedical waste generating from the Slaughter Houses run by the Corporation at the rate which will be equal of the expenses incurred by the Agent for the said purpose. However the responsibility to segregate, pack and store the bio-medical waste will be that of these hospitals and slaughter houses at their own cost.

15. That the Commissioner shall constitute an Advisory Committee for the purpose of proper implementation of this agreement and the said Rules, said Ordinances and the directions issued by the said Committee as well as the Commissioner shall be binding on the Agent/Operator.

16. The Agent/Operator shall keep the said facility insured at his cost and the Corporation shall not be liable for any losses caused to the agent due to fire, theft, natural calamities or for any other reason whatsoever.

17. That the Agent/Operator shall not be entitled to claim any sum, damages, compensation or any amount whatsoever of any nature whatsoever, in any manner whatsoever and for any purpose whatsoever, arising from out of this agreement from the Corporation.

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18. That the Municipal Commissioner or any person authorised by the Commissioner shall be entitled to inspect the said facility and issue directions to the Agent/operator for making compliances as may be prescribed by the said Rules, and the said Ordinances as well as the Maharashtra Pollution Control Board.

19. That in case if for any technical reason, the said facility or any part thereof fails to work, then the Agent shall be under obligation to rectify the said technical problem maximum within 30 days and till then, the Agent shall be entitled to give treatment and dispose of the said Biomedical waste by resorting to alternative modes by giving chemical treatment as prescribed under the said Rules and in case if the operator/agent fails to remove the said technical defects and put the said facility in working condition after expiry of 30 days or if the agent commits breach of any of the terms and conditions mentioned in this agreement, then the Commissioner shall be entitled to take appropriate action including by imposing penalty and by forfeiting the said facility and security deposit to corporation as the Commissioner may deem fit.

20. The employees and labours which may be employed by the agent for the project, shall be the employees of agent only, and there will not be any privity of contract between the Corporation and the said employees of the agent/s and they shall never be the employees of the Corporation and the Corporation will have no concern with them. The agent shall be liable to pay the salaries, provident fund, gratuity, ESI and all other emoluments to his employees.

21. The parties to the contract are the agent/s and the Corporation. All transaction between the Agent/s and third parties shall be carried out as between the two principals without any reference to committing or purporting to commit the corporation in any manner. The agent/s undertake to make such third parties fully aware that the agent/s has/have no authority to bind the Corporation in any manner.

22. That the Commissioner or any Officer on behalf of the Commissioner shall have over all right, authority, control and supervision over the said facility

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with a view to ensure that the work of collection, transporation, treatment and disposal of the Biomedical waste is carried out by the Agent in consonance with the said Rules and said Ordinances and directions issued by the Maharashtra Pollution Control Board. The directions given by the Commissioner from time to time in this regard or any other regard, shall be promptly complied with by the Agent.

23. The Agent shall issue receipts of all the payments received by him as and by way of service charges and will maintain proper books of accounts as are necessary and as directed and keep them properly posted and to duly enter therein all the usual accounts of all the payments received by the Agent during the course of the agency as and by way of service charges and the said accounts shall be open for inspection by the person/s duly authorised by the Commissioner.

That the Agent will maintain office in the space provided by the Corporation within it's premises and will employ a person/accountant with Computer who will maintain the account of all the receipts of service charges.

24. That the liability to pay Income-tax, Sales Tax or any other tax payable if any, including the stamp duty, registration fee and charges, and penalty which may arise during the period of this agreement or in future and which may arise out of this agreement, shall be that of the Agent/Operator.

25. The agent will be liable for expenses incurred for inspection and tests to be conducted as per the directions of the Maharashtra Pollution Control Board or any other competent authority from time to time in respect of the said facility.

26. That the agent shall have the right to inspect the Hospitals for purpose of ascertaining the number of beds and in case of any dispute in respect of actual number of beds, then the same shall be referred to the Commissioner or to the person authorised by the Commissioner and whose decision will be final and the service charges shall be levied as per the said decision for the period as may be decided by the Commissioner.

27. That Municipal Corporation, Amravati as well as said operator shall make

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all the efforts to get occupiers registered under the said rules and said ordinance.

28. The corporation shall not permit any other agency or institution to run the said facility for collection, transportation, treatment and disposal of the bio-medical waste generating within the limits of Municipal Corporation, Amravati during the subsistence of this agreement.

29. That the municipal commissioner shall have right to issue any direction for proper implementation of this agreement with a right to change or modify any terms and condition of this agreement after consultation with the operator as well as the said occupier. Similarly, the municipal commissioner shall be entitled to revise and increase the rates of service charges after every two years looking to the rate of inflation and other relevant factors. That agent shall not be entitled to recover the service charges at more than specified rate.

30. That in case of any complaint against the agent by the occupier, and if the said complaint is found to be correct by the commissioner or any person authorised by the commissioner then the agent shall be under obligation to rectify the said grievances within 3 days from the date of communication to the operator and in failure to do so the commissioner shall be entitled to charge penalty maximum @ Rs.1,000/- per day till the said grievances is ratified.

31. That in case the said facility is ordered to be closed or terminated by virtue of any ordinance, rules, G.R. or any direction from any competent authority, then in that event the agent shall not be entitled to claim any damages from the corporation.

32. That in case of any omission or inconsistency between the terms of the agreement and said rules and ordinance then in that event the agent shall be under obligation to comply with the said rules and ordinance, as may be directed from time to time.

33. All disputes or differences whatsoever which shall at any time hereafter (whether during the continuance and in force of this Agreement or upon or after it

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discharges or determination) arise between the parties hereto or their respective successors in title and assigns touching or concerning this Agreement or its interpretation or construction or meaning or effect or as to the rights, duties and liabilities of the parties hereto or either of them under or by virtue of this Agreement or otherwise as to any other matter in any way connected with arising out of or in relation to the subject matter of this agreement shall in accordance with the subject to the provisions of The Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof for the time being in force shall be referred to the Arbitration of Divisional Commissioner, Amravati Division, Amravati. In the event of death, refusal, neglect, inability, or incapability of a person so appointed to act as arbitrator, the municipal commissioner, may appoint new arbitrator, whose decision in the matters shall be final and binding on the parties hereto. The arbitrator shall have right to pass an award for specific performance of this agreement and the matter connected therewith and in addition thereto will have right to grant damages in addition to specific performance of contract.

34. That tender notice, tender form, terms and conditions, resolution no. 64 dated 19.10.2002 passed by General Body and resolution no. 215 dated 17.1.2003, passed by Standing Committee shall be part and parcel of this agreement.

35. PROVIDED ALWAYS and it is hereby agreed that wherever such an interpretation would be requisite to give fullest possible scope and effect to any contract or covenants herein contained, the expression `Corporation` and 'Operator', `occupier', hereinbefore used, shall include their respective heirs, legal representatives, successors, administrators and assigns and it shall bind them.

36. That any error or omission in terms and conditions prescribed hereinabove, shall not in any manner whatsoever effect the validity and authority of this agreement

IN WITNESSETH THE CORPORATION HAS CAUSED THE COMMISSIONER MUNICIPAL CORPORATION AMRAVATI TO

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HEREUNTO SET HIS HANDS AND AFFIXED THE SEAL OF HIS OFFICE FOR AND ON BEHALF OF THE CORPORATION AND THE AGENT ABOVENAMED HAS/HAVE HEREUNTO SET HIS/THEIR RESPECTIVE HANDS/COMMON SEAL OF THE AGENTS HAS BEEN HEREUNTO AFFIXED ON THE DATE AND THE YEAR FIRST HEREINABOVE WRITTEN.

SIGNED SEALED AND DELIVERED

24.1.03
(Sureshkumar Gogde)

Dy. Municipal Commissioner

Dy. Commissioner for and on behalf
of the Municipal Corporation
of City of Amravati in the
presence of -

1) for DR M. Dehankar
Medical Officer of Health,
Municipal Corporation, Amravati

2) Dilip R. Harwani

AMC Seal

SIGNED SEALED AND DELIVERED BY

For Global Ecosave System
Anil P Harwani
Partner

Global Ecosave System, 24/1/2003.
by its partner Dr. Anil Premchand Harwani,
the abovenamed Agent/Operator in the
presence of -

1) P. R. Kashikar
24.1.03

2) A Bongirwar
(Members of standing committee)
24/1/2003

Dnexpal
-TRUE COPY-
24/01/03

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ANNEXURE A-43

MAHARASHTRA POLLUTION CONTROL BOARD

4010437/4020781/4014701
Fax: 4023516/4024068

KALPATARU POINT, 3rd & 4th floor,
Sion Matunga Scheme Road No. 8,
Opp. Cine Planet Cinema, Near Sion Circle,
Sion (E), MUMBAI: 400 022,

Visit us on: http://mpcb.mah.nic.in

LETTER OF BIO-MEDICAL WASTE AUTHORISATION

[Authorization for operating a facility for collection, Reception, storage, Transportation, treatment and Disposal of Bio-Medical Wastes]

I. File number of authorization and date of issue

MPCB/RO-AMARAVAT/BMW-Ant-2/2003/ Date 7/06/03

II. M/S Global Eco - save system, Amravati is hereby granted an authorisation for handling biomedical waste on the premises situated at Netrajyot Hospital, Badnera road, Amravati.

III. This authorisation shall be in force for a period of ONE year (**28th Feb 2004**). An application shall be made by the occupier/operator for renewal 1 month before expiry of earlier authorisation.

IV. This authorisation is issued subject to compliance of the conditions stated below and to such other conditions as may be specified in the Rules for the time being in force under the Environment (Protection) Act, 1986.

Terms and Conditions of authorisation

1. The authorised Person shall comply with the provisions of the Environment (Protection) Act, 1986, and the Rules made thereunder.
2. The authorisation shall be produced for inspection at the request of an officer authorised by the prescribed authority.
3. i] The authorised person shall not rent, lend or sell the biomedical waste or facility.

   ii] The authorised person can transfer the BMW generated by the to the "Transporter" or "Operator of Facility" authorised by MPCB under Bio-Medical Waste (Management and Handling) Rules, 1998 for collection, transportation, treatment and/or disposal of BMW generated.
4. Any unauthorised change in equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of this authorization.
5. It is the duty of the authorised person to take prior permission of the prescribed authority to close down the facility.
6. The authorisation is granted for generation, treatment and disposal of Bio-Medical Waste (BMW) in waste categories and quantities listed herein below:

Sr. No.	Category No.	Description	Quantity
1	1	Human Anatomical Waste	146.0 Kg/day
2	2	Animal Waste	
3	6	Solid Waste	

4	3	Microbiology & Bacteriological Waste	175.0 Kg/day
5	4	Waste Sharp	
6	5	Discarded Medicines and Cytotoxic Drugs.	52.0 Kg/day
7	7	Solid Waste	
8	8	Liquid Waste.	0.2 M/day
9	10	Chemicals Waste.	
10	9	Incineration Ash.	7.5 Kg/day

7. The liquid / solid waste generated from the treatment activity (from laboratory activities) shall be treated suitably to conform to the standards prescribed in Schedule and washing, cleaning, housekeeping and disinfecting treated suitably to conform to the standards prescribed in Schedule V of said Rules and the Environment (Protection) Act, 1986.

8. (i) BMW shall be treated and disposed of in accordance with Schedule l; and in compliance with the standards prescribed in Schedule V of said Rules.

(ii) You, shall set up requisite BMW treatment facilities like incinerator, autoclave, microwave shreeder & landfill at designated site, in accordance with the BMW Rules. incinerator ash will be disposed at secured landfill.

9. (i) BMW shall not be mixed with other wastes or reused, recycled or sold in any form.

(ii) You shall collect BMW segregated into containers / bags at the point of generation in accordance with Schedule-II prior to storage, treatment and disposal. The containers shall be labeled according to Schedule III.

(iii) While transporting container containing BMW from the premises where BMW is generated to waste treatment facility outside the container generators premises, the shall, apart from the Label prescribed in Schedule III, also carry information prescribed in Schedule IV and shall be transported by your self as per provisions of Motor Vehicles Act, 1985.

(iv) Notwithstanding anything contained in the Motor Vehicles Act, 1988 or Rules thereunder, BMW shall be transported only in such vehicle as may be authorized for the purpose by the competent authority as specified by the Government.

(v) No untreated BMW shall be kept stored beyond a period of 48 Hours from generation.

10. You shall submit an Annual Report to the prescribed authority in Form-II by 31st 10 January every year including information about the categories and BMW quantities of handled during the preceding year.

11. (i) You shall maintain records related to the generation, collection, reception, storage transportation treatment, disposal and/or any accordance with these Rules and any guidelines issued.

(ii) All records shall be subject to inspection and verification by the prescribed authority at any time.

12. When any accident occurs at any institution or facility or any other site where BMW handled or during transportation of such waste, the authorised person shall report accident in Form III to the prescribed authority forthwith.

13. The Occupier will obey all the lawful instructions issued by the Board Officers from time to time.

For and on behalf of the
Maharashtra Pollution Control Board,

Sd/-

Member secretary
and
Prescribed Authority

To,
M/s Global Eco save system,
Netrajyot Hospital, Badnera road,
Amravati.

Copy to

1] Regional Officer, MPCB, Amravati / Sub Regional Officer, MPCB, Amravati, for information and with instructions to monitor the necessary compliance of the conditions stipulated in the Letter of Authorization.

2] Chief Accounts Officer, MPCB, Mumbai

Authorization fee received vide –

	DD N0	Date	Drawn on
Rs. 17500/-	034212 034213	30-10-2002	The Akola Janata Commercial Bank

Master file

-TRUE COPY-

ANNEXURE A-44

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010437/24020781/24014701
Fax: 24024068 /24023515
Website: http://mpcb.gov.in
E-mail: mpcb@vsnl.net

Kalpataru Point, 2nd - 4th Floor,
Opp. Cine Planet Cinema,
Near Sion Circle, Sion (E)
Mumbai - 400 022

Red/LSI
Consent No: Format 1.0/BO/PSO/CC- 2009000221

Date: 4/9/2020

To

1. The Commissioner,
   Municipal Corporation,
   Amravati — **(Owner of the facility)**
2. M/s. Global Eco Save Systems,
   S. No. 238, Durgapur Road,
   Badnera, Dist. Amravati – 444701 — **(Operator of the facility)**

(Email: watergrace2010@gmail.com)

Renewal of Combined Consent and Authori0zation (CCA) to Operate Common collection, Transportation, Treatment, and Disposal facility for Bio-Medical Waste under the provisions of Water (P & CP) Act, 1974, Air (P & CP) Act, 1981 and Bio-Medical Waste Management Rules, 2016 as amended and Hazardous Waste (M & TM) Rules, 2016.

Ref:-

1. Your CCA application received at SRO, Amravati on 07.03.2020.
2. Feasibility report submitted vide email by RO- Amravati on 28.04.2020
3. Minutes of 4th CC meeting held on 03.06.2020
4. This office email on 25.06.2020
5. Your reply received vide email on 02.07.2020 and 03.07.2020

After examining the proposal, The Maharashtra Pollution Control Board hereby Renew Combined Consent and Authorization to operate CBMWTSDF under Section 25/26 of the Water (P&CP) Act, 1974, Section 21 of the Air (P&CP) Act, 1981 and Bio-Medical Waste Management Rules, 2016, and Authorization under Rule 5 of the Hazardous Wastes (Management & Transboundary Movement) Rules,2016 respectively, Under Environment (Protection) Act, 1986, subject to terms and conditions as specified below and in the **Schedules(I-IV) and Annexures (I-III)** enclosed in this order.

1. This CCA shall be in force for a period from **31.12.2019 to 31.12.2023**
2. The capital investment of the Plant is **₹ 2.35 Crore** (As per C.A. Certificate Dtd. 27.12.2019)
3. Plant Area: - Plot Area 6700 M^2 with Built-up area 2400 M^2.
4. The Jurisdiction allocated for waste collection: - All Talukas of Dist. Amravati, Yavatmal and Washim. Additional area of Akola and Buldhana till new facility with incineration establish in said area.
5. **Conditions under the Water (P&CP) Act, 1974:-**
   1. Quantity of total water consumption shall not exceed 4.0 M^3/day. You shall not use the ground water without obtaining prior permission of Central Ground Water Authority.

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2. You shall provide adequate treatment & disposal facility for sewage & Effluent generated as specified in **Annexure-I**
3. You shall provide water meter at water intake point & at sewage/Effluent disposal point and shall maintain monthly records thereof.

6. **Conditions under the Air (P&CP) Act,1981:-**
1. You shall use the fuel for incinerator & DG set and provide the adequate air pollution control devices as specified to maintain the emissions from the stack attached to the incinerator and DG set as specified in the **Annexure-II**.
2. You shall provide adequate emission control system to incineration and DG set as specified in **Annexure-II.**
3. You shall strictly observe noise standards applicable for DG set and ambient noise level as per **Annexure-II.**

7. **Conditions under Hazardous Waste (M & TM) Rules 2016:-**
You shall have valid membership of CHWTSDF at MEPL, Nagpur and shall dispose the Hazardous waste generated i.e. ETP sludge, Incineration Ash in strict compliance with said rules and maintain record thereof.

Sr. No.	Type of Waste	HW Category no.	Quantity (Kg/M)	Disposal
1	ETP Sludge	35.3	70.0	For Landfill at CHWTSDF
2	Incineration Ash	37.3	490.0	

8. **Conditions under BMW Management rules 2016:-**
You shall operate Treatment plant as below and shall comply with the operational conditions mentioned at **Schedule-I.**

Sr.No.	Treatment Technology	Installed Capacity	Operational Capacity/Day	Compliance of Standards
1	Incineration	300 Kg/hr.	5,400 Kg/day	Annexure II
2	Autoclave	50 Liter/Cycle	18 Cycles/Day each cycle 90 min.	Annexure III
3	Shredder I	50 Kg/hr.	As per actual	Schedule

9. You shall use only dedicated vehicles as detailed in **Annexure-IV** for collection and transportation of Bio-Medical waste within allocated Jurisdiction. Vehicles Authorized for Collection shall strictly comply with this BMWM Rules 2016 and CPCB/MPCB guidelines and Motor Vehicles act, 1988 (59 of 1988).

10. You shall collect the BMW Strictly complying with the Provisions of **Schedule-I** and Treatment & Disposal as specified in **Schedule-I.**

11. You shall not collect outdated, discarded, unused cytotoxic drugs/waste generated in the Cancer research centers and health care establishments unless they are specifically marked with the symbol of Bio Hazard & Cytotoxic Hazard.

12. You shall collect and dispose-off the Mercury Waste from HCE as per guidelines published by CPCB as detailed in document entitled "Environmentally Sound Management of Mercury Waste in Health Care Facilities" (www.cpcb.nic.in).

13. You shall not undertake Modifications/ Upgrdation in existing facility without obtaining prior Environment Clearance under the Provision of EIA notification, 2006 and Consent to Establish from the MPC Board.

14. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by you shall constitute a breach of this authorization.

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15. You shall not Rent, Lend, Sell, Transfer or Close Down the facility or otherwise transport the Bio-Medical waste for any other purpose without obtaining prior written permission of the MPC Board.

16. This Board reserves the right to review, amend, suspend, revoke, or change any of the conditions applicable under this CCA and the same shall be binding on the facility operator.

17. You shall maintain records of MPC board Officers visit and shall obey all the lawful instructions issued by the Board Officers from time to time.

18. Any violation of provisions of BMW Management Rules, 2016 as amended shall attract the penal provisions of Environment (Protection) Act, 1986 and Violations under the provisions of Water (P&CP) Act 1974, Air (P&CP) act 1981 shall attract provisions of respective act including closure of the facility and prosecution.

19. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government agencies.

20. As per the report submitted Bank Guarantee of Rs.3,00,000/- is eligible for release for provision of Vehicle Tracking System, Bar Code system and upgradation of incinerator to achieve 2 sec residence time in secondary chamber.

21. SRO- Amravati- I has not submitted Bank Guarantee compliance hence Bank Guarantee of Rs. 2,50,000/- is eligible for forfeiture for non provision of Automatic feeding system and Graphical Temperature, Pressure and Time recording system and double BG is imposed.

22. RO- Amravati shall ensure forfeiture of Bank Guarantee of Rs. 2.50 lakh from earlier submission by CTF and obtain Bank guarantee of **₹9.0 Lakhs** as specified in **Schedule-III** within 30 days. Non submission of B.G. in specified time shall attract revocation of this CCA without further notice.

For and on behalf of the
Maharashtra Pollution Control Board

(E. Ravendiran IAS)
Member Secretary

Maharashtra Pollution Control Board

Payment Details:-
Received Consent and Authorization fee as below:-

Sr. No.	Amount (`)	DD. No.	Date
1.	75,000/-	TXN1912002508	28.12.2019
2.	87,500/-	TXN2001000060	01.01.2020
The earlier remaining fees of Rs. 63,500/- on 27.08.2018 with Board is considered for this renewal of CCA			
After considering the above remaining fees and submitted fees with this CCA now the total amount of fees balance with Board is Rs. 81,000/- will be considered for further renewal of CCA.			

Copy to:

1. Regional Officer – MPCB, Amravati and Sub -Regional Officer – Amravati-I, MPCB. They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Mumbai- for information.
3. I/C EIC- for record & website updating purpose.

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Annexure – I

Conditions under Water (P & CP), 1974 Act: (Refer Condition No. 5)

a) Water Consumption Details:-

Sr. No.	Purpose for water consumed	Consumption (in CMD)
1	Industrial Cooling and boiler feed etc.	Nil
2	Domestic purpose	4.5
3	Processing whereby water gets polluted & pollutants are easily biodegradable	Nil
4	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	Nil
5	Other such as agriculture, gardening, etc.	Nil

b) Conditions for Sewage & Effluent Generation, Treatment and Disposal:-

Sr. no.	Description	Permitted quantity of discharge (CMD)	Standards to be achieved	Disposal
1	Domestic effluent	4.0	As per clause 'C'	100% Recycle
2	Trade effluent	Nil	As per clause 'C'	

c) You shall operate the combined waste water treatment plant of adequate design and capacity to treat the domestic sewage and trade effluent so as to achieve the following standards as prescribed below under E (P) Act, 1986 and Rules made there under and recycle after achieving standard prescribed below.

Sr. No.	Parameters	Discharge Standards applicable
		Limiting Concentration in mg/except for pH
1	pH	6.5-9.0
2	Oil & Grease	10
3	BOD (3 days 27°C)	30
5	COD	250
6	Total Suspended Solids	100
7	Bio-Assay Test	90 % survival of fish after 96 hours in 100 % effluent

d) You shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

e) You shall provide Primary/ Secondary/ tertiary treatment system and disinfection facility.

f) The Applicant shall obtain prior consent of the Board to take steps for Expansion/Modification of any treatment and disposal system or an extension or addition thereto.

g) You shall provide Specific Water Pollution control system as per above conditions and conditions of Environmental Clearance, if applicable.

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Terms & conditions for Incinerator(s) and D.G. Set(s) under Air (P & CP) Act, 1981 and Bio Medical waste management Rule, 2016: (Refer Condition No.6)

1. You shall observe following fuel pattern and erect following stack (s):

Sr. No.	Stack Attached to	Fuel Type	Quantity (litres/hr.)	Stack Height (Mtr)
1	D.G. Set (25 KVA)	Diesel	4.0	1.0
2	Incinerator	Diesel	33.0	30.0

2. You shall provide following Air pollution Control Devices (APCD) as stated at "C" below and shall observe the following operating conditions and emission standards:

a. Operating Standards:-

i. Combustion efficiency (CE) shall be at least 99.00%.

ii. The Combustion efficiency is computed as follows;

$$\text{ii. C.E.} = \frac{\text{a. \% CO2}}{\text{1. \% CO2 + \% CO}} \times 100$$

iii. The temperature of the primary chamber shall be minimum 800°C, and of the secondary chamber shall be minimum 1050° ± 50° C.

iv. The secondary chamber gas residence time shall be at least 2 (Two) seconds at 1050°± 50°C.

b. Emission Standards:-

Sr.No.	Parameters	Limiting Concentration in mg/Nm^3 unless stated
1	Particulate matter	50
2	Nitrogen Oxides	400
3	HCL	50
4	Total Dioxin & Furans	0.1 ngTEQ/Nm^3 (at 11% O2)
5	Hg & It's Compounds	0.05

c. Essential Components of Incinerator to Meet emission standards of BMWM Rules 2016:-

i. Secondary chamber-2 No.s (for 2 second residence time)
ii. Individual burner for primary & secondary chamber.
iii. Venturi scrubber having min. 600mm WC pressure drop with Recirculation pump and recirculation Tank.
iv. Activate carbon dosing for Dioxin removal.
v. ID fan having 900-1000 mm WC pressure drop.
vi. Packed bed for scrubbing for gaseous pollutants with recirculation pump and recirculation tank.
vii. Minimum stack height shall be 30 meters above the ground and shall be attached with the necessary monitoring facilities as per requirement of monitoring of general parameters as notified under the E (P) Act, 1986 and in accordance with the CPCB Guidelines of Emission Regulation Part-III.

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d. General Requirements:-

i. Volatile organic compounds in the ash shall not be more than 0.01%.
ii. The Applicant shall provide ports in the chimney and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's staff. The chimneys shall be numbered as S-1, S-2 etc and these shall be painted / displayed to facilitate identification.
iii. The operator shall monitor the stack gaseous emissions (under optimum capacity of the incinerator) of above mentioned parameters at least quarterly from the laboratory recognized under the Environment (Protection) Act, 1986 & NABL accredited and record of such analysis results shall be maintained and submitted to the prescribed authority. In case of dioxins and furans, monitoring should be done once in a year.

Note:-

i. The existing incinerators shall comply with the above standards.
ii. The existing incinerators shall comply with the standards for Dioxins and Furans of 0.1ngTEQ/NM3.
iii. Wastes to be incinerated shall not be chemically treated with any chlorinated disinfectants.
iv. Only low Sulphur fuel like Light Diesel Oil or Low Sulphur Heavy Stock or Diesel, Compressed Natural Gas, Liquefied Natural Gas or Liquefied Petroleum Gas shall be used as fuel in the incinerator.
v. You shall install continuous emission monitoring system for the parameters as stipulated by Central Pollution Control Board for CO2, CO and O2.
vi. All monitored values shall be corrected to 11% Oxygen on dry basis.
vii. Incinerators (combustion chambers) shall be operated with such temperature, retention time and turbulence, as to achieve Total Organic Carbon content in the bottom ashes less than 3% or their loss on ignition shall be less than 5% of the dry weight.
viii. The occupier or operator of a common bio-medical waste incinerator shall use combustion gas analyzer to measure CO2, CO and O2.

3. The Applicant shall obtain prior permission of MPC board for providing additional control equipment with necessary specifications and operation thereof or replacement/alteration well before its life come to an end or erection of new pollution control equipment.

4. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, either in whole or in part as necessary).

5. Conditions for D.G. Set:-

a. Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically for control of noise.

b. Acoustic enclosure/acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB(A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.

c. You shall make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.

Maharashtra Pollution Control Board

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d. Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.

e. A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.

f. D.G. Set shall be operated only in case of power failure.

g. The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.

h. The applicant shall comply with the notification of MoEFCC dated 17.05.2002 regarding noise limit for generator sets run with diesel.

6. You shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.

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Annexure-III

Standards for Treatment and Disposal of "RED" Category (Autoclavable) Bio-Medical Waste

Standards for Waste Autoclaving:

The autoclave should be dedicated for the purposes of disinfecting and treating bio- medical waste.

1. When operating a vacuum autoclave, medical waste shall be subjected to a minimum of three pre-vacuum pulse to purge the autoclave of all air. The waste shall be subjected to the following.
   i. A temperature of not less than 121° C and a pressure of 15 psi for an autoclave residence time of not less than 45 minutes or

2. Medical waste shall not be considered properly treated unless the time, temperature and pressure indicators indicate that the required time, temperature and pressure were reached during the autoclave process. If for any reasons, time temperature or pressure indicates that the required temperature, pressure or residence time was not reached, the entire load of medical waste must be autoclaved again until the proper temperature, pressure and residence time were achieved.

3. Recording of operational parameters: - Each autoclave shall have graphic or computer recording devices which will automatically and continuously monitor and record dates, time of day, load identification number and operating parameters throughout the entire length of the autoclave cycle.

4. Validation test: Spore Test – The autoclave should completely and consistently kill the approved biological indicator at the maximum design capacity of each autoclave unit. Biological indicator for autoclave shall be *Geobacillus stearothermophilus* spores using vials or spore strips, with at least 1x 106 spores per milliliter. Under no circumstances will an autoclave have minimum operating parameters less than a residence time of 30 minutes, a temperature less than 121° C or a pressure, less than 15 psi. Test should be conducted at least once in every week & record in this regard shall be maintained.

5. Routine Test: A chemical indicator strip/tape that changes color when a certain temperature is reached can be used to verify that a specific temperature has been achieved. It may be necessary to use more than one strip over the waste package at different location to ensure that the inner content of the package has been adequately autoclaved. Test should be conducted during autoclaving of each batch & record in this regard shall be maintained.

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Maharashtra Pollution Control Board

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Annexure – IV

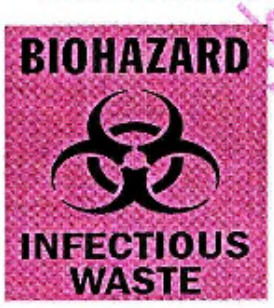
BMW Collection and Transportation

1. You shall use following dedicated, GPS enabled vehicles having separate compartments for storage as per colour coding, for collection & transportation of BMW. You shall provide login details of Vehicle Tracking system to the respective SRO, MPCB. Vehicle tracking data shall be stored in archive data for minimum period of 3 months.

2. Use of unauthorized vehicles other than mentioned below shall attract penal action. You shall obtain amendment to Authorization for any new addition or Deletion of the vehicles during the period of this CCA.

Sr. No.	Vehicle Make	Model Name	Vehicle Registration Number	Capacity (in MT)	Chassis Number
1	Tata	Tata Ace-HT	MH15 -FV -3078	0.850	MAT445553HVG32081
2	Tata	Tata Ace-HT	MH15 -FV -3080	0.850	MAT445553HVG32017
3	Tata	Tata Ace-HT	MH15 -EG -8174	0.850	MAT445064GYD05423
4	Tata	Tata Ace-HT	MH15 -EG -8175	0.850	MAT445064GVD21235
5	Tata	Tata Ace-HT	MH15 -EG -8176	0.850	MAT445064GYD05411
6	Tata	Tata Ace-HT	MH15 -EG -8177	0.850	MAT445064GZD18684
7	Ashok Layland	Al-Dost	MH15 –EG- 8270	1.250	MB1AA22E7FRG18065
8	Ashok Layland	Al-Dost	MH15 –EG- 8277	1.250	MB1AA22E6FRG18073
9	Ashok Layland	Al-Dost	MH15 –FV- 2847	1.250	MB1AA22E6HRB68525

3. Body of the Vehicles used for BMW Transportation must be painted from outside with coloured symbol of BIOHAZARD and CYTOTOXIC as shown below, Label shall be NONWASHABLE and be prominently visible on both side of the vehicle body.



4. Name of CTF, Emergency Contact details and warning for safe handling during accident/spillage must be prominently mentioned on both sides of the vehicle must be mentioned on vehicle and must prominently visible.

5. Driver must have valid Driving license and trained to handle emergency.

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Schedule-I

Authorization to Manage Bio-Medical Waste (Category and Quantity)
The authorization is granted for Collection, Transportation, Treatment and disposal of Bio-Medical Waste (BMW) in waste categories and quantities listed here in below:

Sr. No	Category	Type of Waste	Quantity not to exceed (Kg/M)	Segregation Colour coding	Treatment & Disposal
1	Yellow	a) Human Anatomical waste	27000	Yellow coloured non-chlorinated plastic bags	Incineration
		b) Animal Anatomical Waste	500		
		c) Soiled Waste	10000	Yellow coloured non-chlorinated plastic bags	Incineration or Autoclaving followed shredding treated waste to be sent to authorize recycler.
		d) Expired or Discarded Medicines	2000		Incineration at temp greater than 1200^0 C
		e) Chemical Waste	1000		Incineration or Encapsulation in HWTSDF
		f) Chemical Liquid Waste	1500	Not Applicable	Not Applicable
		g) Discarded linen, mattresses, beddings contaminated with blood or body fluid.	500	Yellow coloured non-chlorinated plastic bags or suitable packing material	Non chlorinated Chemical disinfection followed by Incineration
		h) Microbiology Biotechnology and other clinical laboratory waste	1000	In case of Bedded Hospitals/Path. Labs. / Blood Banks pretreated to sterilize with non-chlorinated chemicals to WHO guidelines & WHO Blue Book. Or in case of others Autoclave safe plastic bags or containers	Incineration. Pretreated to sterilize with non-chlorinated chemicals to WHO guidelines & WHO Blue Book followed by Incineration.
2	Red	Contaminated waste (Recyclable)	1500	Red coloured non chlorinated plastic bags or containers	Autoclave treated shredded waste sent to plastic recycler authorized under PWM & BMWM rules, 2016.
3	White (Translucent)	Waste sharps including Metals	800	Puncture proof, Leak proof, tamper proof container	Autoclaving treated waste sent to for final disposal to iron foundries having MPCB authorization or Concrete waste sharp pit
4	Blue	a. Glassware	7500	Puncture proof / Leak proof boxes or Containers with Blue coloured marking.	Autoclaving treated waste sent to authorize recycler.
		b. Metallic body implants	200		

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Schedule-II

Responsibilities of the Owner and Operator of the Facility

1. You shall upgrade /Operate Common BMW Treatment Facility, in accordance with BMW Management Rules, 2016 as amended 2018 and CPCB guidelines issued time to time.
2. You shall ensure that all Health Care Establishments and Institutions generating BMW in your jurisdiction shall obtain membership of the Common Facility and shall hand over the waste to the Facility. Also ensure that records of the members are maintained properly.
3. You shall establish bar code and global positioning system enabled for handling of bio-medical waste
4. You shall ensure Receipt, Treatment and Disposal of only segregated Bio-Medical Waste in colour coded bags from the HCEs within 48 hours from the generation.
5. You shall Supply non-chlorinated plastic coloured bags to the occupier on chargeable basis, if required.
6. You shall ensure mandatory colour coded bins are used for segregation of BMW by the HCEs and Institutions generating BMW.
7. You shall fix the charges for providing services to HCEs in consultation with Medical Association.
8. You shall comply and strictly abide with the conditions stipulated in BMW Management Rules, 2016 as amended 2018.
9. The treated Plastic / Metal Waste shall be handed over to the MPCB authorized recycler only and record shall be maintained & submit to MPCB in Annual report.
10. You shall provide training to all workers involved in handling of bio-medical waste at the time of induction and at least once a year thereafter and maintain record thereof.
11. You shall undertake appropriate medical examination at the time of induction and at least once in a year and immunize all its workers involved in handling of bio medical waste for protection against diseases, including Hepatitis B and Tetanus, that are likely to be transmitted while handling bio medical waste and maintain the records for the same.
12. You shall ensure use of personal protective Equipment such as Heavy Duty Gloves (Workman's Gloves), Gum Boots or safety shoes for waste collectors, Face mask, Head Cap, Splash Proof Gowns or aprons etc., Disposal gloves by waste handlers.
13. You shall develop own website. The website should be uploaded on monthly basis with all the information relating to Bio-Medical waste management including this CCA and other permission and report.
14. You shall maintain a log book for each of its treatment equipment according to weight of batch; categories of waste treated; time, date and duration of treatment cycle and total hours of operation.
15. You shall maintain all record for operation of incineration, autoclaving for a period of five years and produce whenever asked by MPCB authorities.

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16. The occupier and operator of a common bio medical waste treatment facility shall be liable for all the damages caused to the environment or the public due to improper handling of bio-medical wastes.

17. You shall ensure submission of Annual Report of BMW for the period Jan to Dec, including category and quantity of BMW collected and Disposed at Facility in Form IV for preceding year before 30th June of every year to the Regional Office, MPCB, Amravati and uploading the same to MPCB website.

18. You are responsible to submit application for renewal of Combined Consent & Biomedical Waste authorization before 120 days of expiry.

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Schedule-III

Bank Guarantees

I. Bank Guarantee imposed to ensure timely compliance, to be observed by operator.

Sr. No.	Activity / Condition to be Complied	Compliance Timeline (in Months)	Bank Guarantee Amount (₹)
I	**Operation and Maintenance**		
1	To achieve temperature of Primary and Secondary chamber of Incinerator	Continuous	1,00,000/-
2	To conduct and meet sterilization validation test and temperature test for autoclave	Continuous	50,000/-
3	To Operate and maintain Air Pollution Control Device(s) to achieve prescribed Stack emissions	Continuous	1,00,000/-
4	Operation and Maintenance of ETP to achieve prescribed discharge standard	Continuous	1,00,000/-
II	**Records**		
1	To Maintain records of BMW and submission of Annual Report in Form –IV before 30th June	Continuous	25,000/-
2	To maintain records of HW material delivered to CHWTSDF	Continuous	25,000/-
III	Performance		
1	Automatic feeding system	Three	3,00,000/-
2	Graphical Temperature, Pressure and Time recording system	Three	2,00,000/-
		Total	**9,00,000/-**

Rupees Nine Lakh only.

Note: You shall extend the above submitted Bank Guarantee valid upto the validity of this CCA + 4 months additional.

Maharashtra Pollution Control Board

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Schedule-IV

General Conditions

The following general conditions shall apply:-

1. You shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

2. Whenever due to any accident or other unforeseen act or event, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith reported to Board, concerned Police Station, Executive Engineer MIDC and Local Body. In case of failure of pollution control equipment's, the process connected to it shall be stopped.

3. Voluntary Closure: In case of any accident you shall inform forthwith in writing to the local Regional Officer/ Sub Regional Officer of MPCB and consent granting authority and shall not start the operations without permission of Board.

4. You shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control operation to abide by terms and conditions of this consent.

5. You shall submit to this office, the 30th day of September every year, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as per the provisions of rule 15 of the Environment (Protection) (Second Amendment) Rules, 1992.

6. You shall comply with the Hazardous Waste (M, H & TM) Rules, 2016 and submit the Annual Returns as per Rule 20(2) of Hazardous Waste (M, H & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year to Regional Office, Nashik.

7. You shall engage qualified staff/personnel/agency to see the day to day compliance of consent & authorization condition towards Environment Protection.

8. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the Terminal manholes. No effluent shall find its way other than in designed and provided collection system.

9. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the HCE.

10. You shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.

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11. You should not cause any nuisance in surrounding area. You shall maintain good housekeeping.

12. You shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted.

13. The non-hazardous solid waste arising in the facility premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.

14. You shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification Dated. 16/11/2009 as amended.

15. You shall submit an official e-mail address and any change will be duly informed to the MPCB.

16. You shall observe provisions of E-waste (Management) Rules 2016 & as amended time to time and Batteries (Management and Handling) Amendment Rules, 2010.

17. An inspection book shall be opened and made available to the Board's officers during their visit to the CBMWTSDF.

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Maharashtra Pollution Control Board

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Global Eco Save Systems , Amravati

Bio Medical Waste Data For the Moth Of Oct-20

SR. NO.	DATE	DISTRICT	NO. OF YELLOW BAG	WEIGHT OF YELLOW BAGS IN KG.	NO. OF RED BAG	WEIGHT OF RED BAGS IN KG.	NO. OF BLUE BAGS	WEIGHT OF BLUE BAGS IN KG.	NO. OF WHITE BAGS	WEIGHT OF WHITE BAGS IN KG.	Total Weight in KG.
1	01-10-20	AMRAVATI	389.00	344.50	11.00	6.88	4.00	2.33	5.00	2.56	**363.15**
2	02-10-20	AMRAVATI	374.00	388.20	11.00	6.43	7.00	2.88	4.00	2.58	**400.09**
3	03-10-20	AMRAVATI	498.00	512.60	17.00	9.94	7.00	3.20	6.00	3.65	**529.39**
4	04-10-20	AMRAVATI	308.00	304.37	8.00	6.32	4.00	2.22	4.00	2.56	**321.79**
5	05-10-20	AMRAVATI	472.00	487.65	19.00	9.98	4.00	2.23	5.00	2.86	**512.70**
6	06-10-20	AMRAVATI	472.00	462.38	11.00	5.23	5.00	2.88	7.00	3.49	**473.98**
7	07-10-20	AMRAVATI	389.00	398.7	12.00	8.68	6.00	3.22	5.00	2.86	**413.46**
8	08-10-20	AMRAVATI	438.00	489.56	15.00	9.44	4.00	1.88	4.00	2.47	**512.79**
9	09-10-20	AMRAVATI	374.00	388.20	11.00	6.43	7.00	2.88	4.00	2.58	**400.09**
10	10-10-20	AMRAVATI	434.00	455.30	19.00	9.98	4.00	2.23	5.00	2.86	**470.37**
11	11-10-20	AMRAVATI	283.00	292.67	7.00	4.89	2.00	1.58	3.00	2.22	**301.36**
12	12-10-20	AMRAVATI	487.00	552.32	17.00	10.43	5.00	2.86	8.00	3.98	**569.59**
13	13-10-20	AMRAVATI	491.00	582.30	16.00	9.68	7.00	2.88	4.00	2.58	**607.12**
14	14-10-20	AMRAVATI	438.00	489.56	11.00	6.43	6.00	3.48	5.00	2.86	**502.33**
15	15-10-20	AMRAVATI	429.00	446.2	15.00	8.56	5.00	2.88	7.00	3.49	**461.13**
16	16-10-20	AMRAVATI	398.00	409.80	11.00	5.23	4.00	2.88	3.00	2.97	**420.88**
17	17-10-20	AMRAVATI	438.00	489.56	11.00	6.43	4.00	1.88	5.00	2.86	**500.73**
18	18-10-20	AMRAVATI	389.00	344.50	11.00	6.88	4.00	2.33	5.00	2.56	**363.15**
19	19-10-20	AMRAVATI	487.00	552.32	17.00	10.43	5.00	2.86	8.00	3.98	**569.59**
20	20-10-20	AMRAVATI	425.00	499.37	13.00	8.78	6.00	3.22	5.00	2.56	**513.93**
21	21-10-20	AMRAVATI	434.00	455.30	19.00	9.98	4.00	2.23	5.00	2.86	**470.37**
22	22-10-20	AMRAVATI	389.00	398.7	12.00	8.68	6.00	3.22	5.00	2.86	**413.46**
23	23-10-20	AMRAVATI	374.00	388.20	11.00	6.43	7.00	2.88	4.00	2.58	**400.09**
24	24-10-20	AMRAVATI	438.00	489.56	15.00	9.44	4.00	1.88	4.00	2.47	**512.79**
25	25-10-20	AMRAVATI	283.00	292.67	7.00	4.89	2.00	1.58	3.00	2.22	**301.36**
26	26-10-20	AMRAVATI	472.00	462.38	11.00	5.23	5.00	2.88	7.00	3.49	**473.98**
27	27-10-20	AMRAVATI	396.00	406.98	12.00	7.43	3.00	2.23	4.00	2.47	**419.11**
28	28-10-20	AMRAVATI	438.00	489.56	11.00	6.43	6.00	3.48	5.00	2.86	**502.33**
29	29-10-20	AMRAVATI	487.00	552.32	17.00	10.43	5.00	2.86	8.00	3.98	**569.59**
30	30-10-20	AMRAVATI	438.00	489.56	15.00	9.44	4.00	1.88	4.00	2.47	**512.79**
									Grand Total -14211.02		

For Global Eco Save Systems

Authorised Sign.

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ANNEXURE A-45

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GLOBAL ECO SAVE SYSTEMS

An ISO 9001-2008 Certified Company

118, 1st FLOOR, SHRI BALAJI MARKET COMPLEX

JAWAHAR ROAD, AMRAVATI - 444 601

PHONE : (O) 2565493

E-MAIL : globaleco12@rediffmail.com

Web site : www.globaleco12.com

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Global Eco Save Systems, Amravati

Non- Covid Waste Data For The Month Of April-21

DATE	NO. OF YELLOW BAG	WEIGHT OF YELLOW BAGS IN KG.	NO. OF RED BAG	WEIGHT OF RED BAGS IN KG.	NO. OF BLUE BAGS	WEIGHT OF BLUE BAGS IN KG.	NO. OF WHITE BAGS	WEIGHT OF WHITE BAGS IN KG.	Total Weight in KG.
01-04-21	389.00	398.7	12.00	8.68	6.00	3.22	5.00	2.86	413.46
02-04-21	437.00	462.38	14.00	9.10	4.00	2.56	6.00	2.89	476.93
03-04-21	232.00	264.37	6.00	4.30	3.00	1.37	4.00	2.56	272.60
04-04-21	487.00	552.32	17.00	10.43	5.00	2.86	8.00	3.98	569.59
05-04-21	472.00	462.38	14.00	9.10	5.00	2.88	7.00	3.49	477.85
06-04-21	429.00	446.2	15.00	8.56	5.00	2.88	7.00	3.49	461.13
07-04-21	389.00	398.7	12.00	8.68	6.00	3.22	5.00	2.86	413.46
08-04-21	374.00	388.20	11.00	6.43	7.00	2.88	4.00	2.58	400.09
09-04-21	398.00	409.80	11.00	5.23	4.00	2.88	3.00	2.97	420.88
10-04-21	283.00	292.67	7.00	4.89	2.00	1.58	3.00	2.22	301.36
11-04-21	498.00	512.60	17.00	9.94	7.00	3.20	6.00	3.65	539.33
12-04-21	472.00	487.65	19.00	9.98	4.00	2.23	5.00	2.86	502.72
13-04-21	429.00	446.2	15.00	8.56	5.00	2.88	7.00	3.49	461.13
14-04-21	398.00	409.80	11.00	5.23	4.00	2.88	3.00	2.97	420.88
15-04-21	434.00	455.30	19.00	9.98	4.00	2.23	5.00	2.86	470.37
16-04-21	438.00	489.56	11.00	6.43	6.00	3.48	5.00	2.86	502.33
17-04-21	389.00	344.50	11.00	6.88	4.00	2.33	5.00	2.56	363.15
18-04-21	446.00	482.32	17.00	10.43	5.00	2.86	8.00	3.98	510.02
19-04-21	472.00	487.65	19.00	9.98	4.00	2.23	5.00	2.86	502.72
20-04-21	458.00	478.99	13.00	8.88	5.00	2.88	7.00	3.56	494.31
21-04-21	434.00	455.30	19.00	9.98	4.00	2.23	5.00	2.86	470.37
22-04-21	374.00	388.20	11.00	6.43	7.00	2.88	4.00	2.58	400.09
23-04-21	389.00	398.7	12.00	8.68	6.00	3.22	5.00	2.86	413.46
24-04-21	283.00	292.67	7.00	4.89	2.00	1.58	3.00	2.22	301.36
25-04-21	437.00	462.38	14.00	9.10	4.00	2.56	6.00	2.89	476.93
26-04-21	410.00	422.60	13.00	7.63	6.00	2.99	7.00	3.65	436.87
27-04-21	389.00	398.7	12.00	8.68	6.00	3.22	8.00	3.98	414.58
28-04-21	374.00	388.20	11.00	6.43	5.00	2.12	4.00	2.88	399.63
29-04-21	344.00	389.70	13.00	8.88	6.00	3.48	7.00	3.56	405.62
30-04-21	396.00	406.98	12.00	7.43	3.00	2.23	4.00	2.47	419.11
								Grand Total	13112.33

For Global Eco Save Systems

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Authorised Sign.

Global Eco Save Systems, Amravati

Covid Waste Data For The Month Of Oct-20

Sr. No	Town	Center	1st Oct.	2nd Oct.	3rd Oct.	4th Oct.	5th Oct.	6th Oct.	7th Oct.	8th Oct.	9th Oct.	10th Oct.
1	Amravati	Superspeciality Hospital	64.40	67.50	63.80	71.40	49.80	74.10	64.40	69.10	24.00	64.40
2	Amravati	Vidarbha Mahavidyalay	28.50	27.50	10.20	17.10	20.10	26.20	14.50	16.90	11.40	4.20
3	Amravati	Adiwasi Girls Hostel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Amravati	Boys Hostel, Central Jail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00
5	Amravati	Dr. Rajendra Gode Ayurved College	74.40	69.20	20.10	31.00	28.40	29.80	33.50	40.80	37.00	38.60
6	Amravati	Royal Taj Palace	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Amravati	Axon Hospital	48.50	59.10	30.60	23.40	26.80	30.40	29.60	42.50	35.00	50.00
8	Amravati	Ambadevi Dedicated Covid Health Ctr							30.40	11.00	6.80	17.20
9	Amravati	Hilltop Dedicated Covid Health Center										
10	Amravati	Mahesh Bhavan	26.20	28.20	25.40	22.10	28.10	29.40	24.80	54.80	38.60	48.20
11	Amravati	Hotel Rangoli Pearl	54.40	59.20	20.00	21.70	22.20	26.20	19.80	42.30	42.30	27.00
12	Amravati	Dayasagar Covid Detected hospital	56.20	50.30	25.40	35.40	29.40	20.40	31.40	32.40	23.70	20.20
13	Amravati	Best Hospital	40.10	42.10	31.50	19.20	21.40	24.40	19.80	18.70	26.30	9.30
14	Amravati	Bakhtar Hospital	28.40	30.40	8.10	5.10	17.50	19.60	24.30	16.50	42.80	24.50
15	Amravati	Nagpuri Gate Swab Collecion Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	Amravati	PDMMC Covid Hospital	48.40	45.30	35.30	28.00	29.40	44.50	34.60	35.90	16.20	21.50
17	Amravati	Isolation Ward Walgaon	17.70	15.40	12.40	10.10	14.10	11.40	14.80	12.10	7.80	17.80
18	Amravati	Prabodhani	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	Amravati	SGBAU Covid-19 Testing Lab	0.00	0.00	0.00	15.20	17.20	24.40	27.40	11.40	9.60	16.00
20	Amravati	Dr. Dhole Homeo. College	0.00	0.00	3.20	3.10	7.40	10.90	13.80	15.10	0.00	39.60
21	Amravati	Covid Swab Collection Vilas Nagar	40.60	46.20	5.90	7.90	9.10	14.80	10.80	11.30	7.40	0.50
22	Amravati	Covid Swab Collection Center Isolation	20.50	18.90	2.10	1.10	2.20	17.90	13.20	12.10	11.20	1.90
23	Amravati	Prime Park Hotel	28.20	29.10	32.50	19.10	27.40	20.40	23.40	23.30	0.00	38.10
24	Amravati	Govt. Polytechnic Hostel										

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JAWAHAR ROAD, AMRAVATI - 444 601

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Sr. No	Town	Center	11th Oct.	12th Oct.	13th Oct.	14th Oct.	15th Oct.	16th Oct.	17th Oct.	18th Oct.	19th Oct.	20th Oct.
1	Amravati	Superspeciality Hospital	40.20	79.00	91.00	63.10	40.80	64.40	60.20	49.60	64.80	75.00
2	Amravati	Vidarbha Mahavidyalay	6.50	4.60	4.60	1.50	0.00	0.00	0.00	0.00	0.00	0.00
3	Amravati	Adiwasi Girls Hostel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Amravati	Boys Hostel, Central Jail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Amravati	Dr. Rajendra Gode Ayurved College	14.50	0.00	10.80	0.00	101.80	0.00	43.00	7.00	13.50	0.00
6	Amravati	Royal Taj Palace	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Amravati	Axon Hospital	22.10	0.00	0.00	24.60	10.60	13.20	23.50	4.50	13.70	15.00
8	Amravati	Ambadevi Dedicated Covid Health Ctr	35.80	24.30	0.00	2.00	0.00	0.00	10.40	10.20	0.00	0.00
9	Amravati	Hilltop Dedicated Covid Health Center										
10	Amravati	Mahesh Bhavan	33.60	39.20	25.60	23.60	18.10	20.40	10.20	15.20	9.50	12.70
11	Amravati	Hotel Rangoli Pearl	27.00	24.30	19.50	18.30	21.20	13.80	31.00	17.00	14.60	10.00
12	Amravati	Dayasagar Covid Detected hospital	18.40	28.40	21.90	22.30	20.80	23.40	42.30	15.80	17.10	13.00
13	Amravati	Best Hospital	17.80	15.00	6.00	8.30	9.00	10.00	6.00	0.00	8.00	7.00
14	Amravati	Bakhtar Hospital	24.50	0.00	16.80	10.00	10.00	13.00	10.00	8.00	10.00	8.00
15	Amravati	Nagpuri Gate Swab Collecion Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	Amravati	PDMMC Covid Hospital	25.00	28.00	39.50	25.00	33.30	32.10	36.80	26.70	18.70	18.70
17	Amravati	Isolation Ward Walgaon	7.40	7.40	2.60	4.30	3.50	4.60	2.50	0.00	5.00	0.00
18	Amravati	Prabodhani	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	Amravati	SGBAU Covid-19 Testing Lab	16.00	9.90	8.50	8.50	8.10	7.40	14.30	0.00	13.20	0.00
20	Amravati	Dr. Dhole Homeo. College	30.20	2.50	6.20	0.00	0.00	0.00	2.50	2.50	2.50	0.00
21	Amravati	Covid Swab Collection Vilas Nagar	4.60	4.00	0.00	3.00	4.50	0.00	2.50	0.00	2.50	2.50
22	Amravati	Covid Swab Collection Center Isolation	2.80	2.40	0.00	0.00	5.60	14.50	1.50	0.00	0.00	5.00
23	Amravati	Prime Park Hotel	10.10	26.40	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	Amravati	Govt. Polytechnic Hostel										

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Sr. No	Town	Center	21st Oct.	22nd Oct.	23rd Oct.	24th Oct.	25th Oct.	26th Oct.	27th Oct.	28th Oct.	29th Oct.	30th Oct.
1	Amravati	Superspeciality Hospital	56.00	64.80	83.20	100.80	30.40	0.00	0.00	0.00	0.00	59.00
2	Amravati	Vidarbha Mahavidyalay	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Amravati	Adiwasi Girls Hostel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00
4	Amravati	Boys Hostel, Central Jail	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Amravati	Dr. Rajendra Gode Ayurved College	0.00	0.00	0.00	0.00	10.80	0.00	0.00	0.00	0.00	15.20
6	Amravati	Royal Taj Palace	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Amravati	Axon Hospital	18.00	12.50	21.00	28.00	7.40	0.00	0.00	0.00	0.00	10.80
8	Amravati	Ambadevi Dedicated Covid Health Ctr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00
9	Amravati	Hilltop Dedicated Covid Health Center						0.00	0.00	0.00	0.00	0.00
10	Amravati	Mahesh Bhavan	8.90	11.90	7.90	12.20	14.40	14.60	7.40	29.80	14.60	24.50
11	Amravati	Hotel Rangoli Pearl	10.00	8.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	Amravati	Dayasagar Covid Detected hospital	13.00	15.80	25.00	13.00	12.20	16.00	12.80	29.80	16.00	26.80
13	Amravati	Best Hospital	6.00	7.00	6.00	6.00	7.40	0.00	0.00	0.00	0.00	6.00
14	Amravati	Bakhtar Hospital	9.00	8.00	9.00	10.00	8.50	0.00	0.00	5.00	0.00	13.20
15	Amravati	Nagpuri Gate Swab Collecion Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	Amravati	PDMMC Covid Hospital	40.00	36.80	38.00	30.00	15.80	33.40	26.40	38.70	33.40	28.40
17	Amravati	Isolation Ward Walgaon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.30
18	Amravati	Prabodhani	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	Amravati	SGBAU Covid-19 Testing Lab	0.00	8.50	7.00	7.50	8.40	0.00	0.00	0.00	0.00	11.30
20	Amravati	Dr. Dhole Homeo. College	0.00	0.00	0.00	0.00	7.20	0.00	0.00	0.00	0.00	11.40
21	Amravati	Covid Swab Collection Vilas Nagar	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	7.50
22	Amravati	Covid Swab Collection Center Isolation	0.00	0.00	2.00	3.00	4.60	0.00	0.00	0.00	0.00	26.80
23	Amravati	Prime Park Hotel										
24	Amravati	Govt. Polytechnic Hostel										

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Sr. No	Town	Center	31st Oct.	Total Waste in KG. of Month
1	Amravati	Superspeciality Hospital	49.00	1684.2
2	Amravati	Vidarbha Mahavidyalay	0.00	193.8
3	Amravati	Adiwasi Girls Hostel	4.30	11.3
4	Amravati	Boys Hostel, Central Jail	0.00	1.5
5	Amravati	Dr. Rajendra Gode Ayurved College	13.10	632.5
6	Amravati	Royal Taj Palace	0.00	0
7	Amravati	Axon Hospital	24.80	625.6
8	Amravati	Ambadevi Dedicated Covid Health Ctr	10.00	164.1
9	Amravati	Hilltop Dedicated Covid Health Center	0.00	0
10	Amravati	Mahesh Bhavan	19.80	699.9
11	Amravati	Hotel Rangoli Pearl	0.00	557.8
12	Amravati	Dayasagar Covid Detected hospital	30.20	758.8
13	Amravati	Best Hospital	13.70	392
14	Amravati	Bakhtar Hospital	10.20	400.4
15	Amravati	Nagpuri Gate Swab Collecion Centre	0.00	0
16	Amravati	PDMMC Covid Hospital	27.40	971.2
17	Amravati	Isolation Ward Walgaon	5.00	183.2
18	Amravati	Prabodhani	0.00	0
19	Amravati	SGBAU Covid-19 Testing Lab	10.40	260.2
20	Amravati	Dr. Dhole Homeo. College	14.60	172.7
21	Amravati	Covid Swab Collection Vilas Nagar	8.40	201
22	Amravati	Covid Swab Collection Center Isolation	5.10	174.4
23	Amravati	Prime Park Hotel		305.40
24	Amravati	Govt. Polytechnic Hostel		0.00

Grand Total - 8390.00

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ANNEXURE A-48

Global Eco Save Systems, Amravati

Covid Waste Data For The Month Of April-21

Sr. No	Center	1st April.	2nd April.	3rd April.	4th April.	5th April.	6th April.	7th April.	8th April.	9th April.	10th April.
1	**Superspeciality Hospital**	64.40	67.50	63.80	71.40	49.80	74.10	64.40	69.10	24.00	64.40
2	VMV Hostel	28.50	27.50	10.20	17.10	20.10	26.20	14.50	16.90	11.40	4.20
3	Vilas Nagar , Covid Swab Center	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Isolation Covid Swab Center, Daishra Maidan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00
5	Covid Raibow Hospital Dr. Rathi	74.40	69.20	20.10	31.00	28.40	29.80	33.50	40.80	37.00	38.60
6	Achuyat Maharaj Covid Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	**Axon Hospital**	48.50	59.10	30.60	23.40	26.80	30.40	29.60	42.50	35.00	50.00
8	Isolation Walgaon Centre	1.10	2.20	17.90	12.40	10.10	14.10	11.40	11.00	6.80	17.20
9	Barabde Hospital	12.30	13.10	11.20	9.20	10.40	8.30	9.40	10.80	9.40	10.20
10	**Mahesh Bhavan**	26.20	28.20	25.40	22.10	28.10	29.40	24.80	54.80	38.60	48.20
11	Sunshine hospital dr. deshmukh	54.40	59.20	20.00	21.70	22.20	26.20	19.80	42.30	42.30	27.00
12	**Dayasagar Covid Detected hospital**	56.20	50.30	25.40	35.40	29.40	20.40	31.40	32.40	23.70	20.20
13	**Best Hospital**	40.10	42.10	31.50	19.20	21.40	24.40	19.80	18.70	26.30	9.30
14	**Bakhtar Hospital**	28.40	30.40	8.10	5.10	17.50	19.60	24.30	16.50	42.80	24.50
15	Mahaveer Hospital Dr.Chordiya	14.50	0.00	10.80	0.00	101.80	0.00	43.00	7.00	13.50	0.00
16	**PDMMC Covid Hospital**	48.40	45.30	35.30	28.00	29.40	44.50	34.60	35.90	16.20	21.50
17	Get Life Hospital	17.70	15.40	12.40	10.10	14.10	11.40	14.80	12.10	7.80	17.80
18	City Hospital Dr.Pankaj Bagade	22.10	0.00	0.00	24.60	10.60	13.20	23.50	4.50	13.70	15.00
19	**SGBAU Covid-19 Testing Lab**	0.00	0.00	0.00	15.20	17.20	24.40	27.40	11.40	9.60	16.00
20	Orchid hospital Dr. kakraniya	0.00	0.00	3.20	3.10	7.40	10.90	13.80	15.10	0.00	39.60
21	Shripad hotel dr. pravin rathi	40.60	46.20	5.90	7.90	9.10	14.80	10.80	11.30	7.40	0.50
22	Kitukle hospital	20.50	18.90	2.10	1.10	2.20	17.90	13.20	12.10	11.20	1.90
23	Durvankur Hospital Dr. satish Dahake	28.20	29.10	32.50	19.10	27.40	20.40	23.40	23.30	0.00	38.10
24	Neharu maidan swob lab	1.00	0.50	1.00	0.50	2.00	0.50	1.50	1.00	0.00	1.00
25	Kusmanjali hospital Dr. Maliye	11.30	13.70	11.70	8.30	11.20	9.40	10.20	11.40	12.40	10.40
26	Dastur Nagar swob lab , amt	0.50	1.00	0.50	1.00	0.50	1.00	0.00	0.50	1.70	0.50
27	Covid Yadgire Hospital	15.20	16.20	14.20	15.40	17.40	14.40	15.70	16.50	12.40	14.60
28	Shri Sai Health Care Dr. Pankaj Diwan	6.80	8.70	9.40	10.50	12.30	12.20	13.60	10.20	14.80	13.60
29	Parashree Hospital	40.10	39.10	35.10	25.60	19.40	28.40	29.40	30.00	10.40	26.20
30	Nemani Mangalkaryalay	6.80	8.70	9.40	10.50	12.30	12.20	13.60	10.20	14.80	13.60
31	Sonone Hospital	12.20	10.20	14.20	11.30	13.40	10.50	14.10	9.10	16.80	14.40

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32	Life Care Hospital	15.80	13.70	12.40	14.80	15.00	13.20	10.30	12.20	14.40	17.10
33	Amravati Covid Care Center	31.00	29.10	35.40	15.70	17.20	17.20	24.80	28.10	20.40	14.10
34	Gurukrupa Hospital	6.70	8.60	7.80	9.40	11.40	9.50	12.40	8.30	10.50	11.60
35	Pathankar Hospital	6.30	8.30	9.10	11.20	12.60	11.40	9.30	11.40	12.40	10.20

Sr. No	Center	11th April.	12th April.	13th April.	14th April.	15th April.	16th April.	17th April.	18th April.	19th April.	20th April.
1	**Superspeciality Hospital**	40.20	79.00	91.00	63.10	40.80	64.40	60.20	49.60	64.80	75.00
2	VMV Hostel	6.50	4.60	4.60	1.50	0.00	0.00	0.00	0.00	0.00	0.00
3	Vilas Nagar , Covid Swab Center	6.80	8.70	9.40	10.50	12.30	12.20	13.60	10.20	14.80	13.60
4	Isolation Covid Swab Center, Daishra Maidan	6.70	8.60	7.80	9.40	11.40	9.50	12.40	8.30	10.50	11.60
5	Covid Raibow Hospital Dr. Rathi	14.50	0.00	10.80	0.00	101.80	0.00	43.00	7.00	13.50	0.00
6	Achuyat Maharaj Covid Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	**Axon Hospital**	22.10	0.00	0.00	24.60	10.60	13.20	23.50	4.50	13.70	15.00
8	Isolation Walgaon Centre	35.80	24.30	0.00	2.00	0.00	0.00	10.40	10.20	0.00	0.00
9	Barabde Hospital	6.70	8.60	7.80	9.40	11.40	9.50	12.40	8.30	10.50	11.60
10	**Mahesh Bhavan**	33.60	39.20	25.60	23.60	18.10	20.40	10.20	15.20	9.50	12.70
11	Sunshine hospital dr. deshmukh	27.00	24.30	19.50	18.30	21.20	13.80	31.00	17.00	14.60	10.00
12	**Dayasagar Covid Detected hospital**	18.40	28.40	21.90	22.30	20.80	23.40	42.30	15.80	17.10	13.00
13	**Best Hospital**	17.80	15.00	6.00	8.30	9.00	10.00	6.00	0.00	8.00	7.00
14	**Bakhtar Hospital**	24.50	0.00	16.80	10.00	10.00	13.00	10.00	8.00	10.00	8.00
15	Mahaveer Hospital Dr.Chordiya	6.30	8.30	9.10	11.20	12.60	11.40	9.30	11.40	12.40	10.20
16	**PDMMC Covid Hospital**	25.00	28.00	39.50	25.00	33.30	32.10	36.80	26.70	18.70	18.70
17	Get Life Hospital	7.40	7.40	2.60	4.30	3.50	4.60	2.50	0.00	5.00	0.00
18	City Hospital Dr.Pankaj Bagade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	**SGBAU Covid-19 Testing Lab**	16.00	9.90	8.50	8.50	8.10	7.40	14.30	0.00	13.20	0.00
20	Orchid hospital Dr. kakraniya	30.20	2.50	6.20	0.00	0.00	0.00	2.50	2.50	2.50	0.00
21	Shripad hotel dr. pravin rathi	4.60	4.00	0.00	3.00	4.50	0.00	2.50	0.00	2.50	2.50
22	Kitukle hospital	2.80	2.40	0.00	0.00	5.60	14.50	1.50	0.00	0.00	5.00
23	Durvankur Hospital Dr. satish Dahake	10.10	26.40	27.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	Neharu maidan swob lab	0.50	1.00	0.50	1.00	0.50	1.00	0.00	0.50	1.70	0.50
25	Kusmanjali hospital Dr. Maliye	0.00	0.00	3.20	3.10	7.40	10.90	13.80	15.10	0.00	39.60
26	Dastur Nagar swob lab , amt	17.70	15.40	12.40	10.10	14.10	11.40	14.80	12.10	7.80	17.80
27	Covid Yadgire Hospital	22.10	0.00	0.00	24.60	10.60	13.20	23.50	4.50	13.70	15.00

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28	Shri Sai Health Care Dr. Pankaj Diwan	0.00	0.00	0.00	15.20	17.20	24.40	27.40	11.40	9.60	16.00
29	Parashree Hospital	0.00	0.00	3.20	3.10	7.40	10.90	13.80	15.10	0.00	39.60
30	Nemani Mangalkaryalay	40.60	46.20	5.90	7.90	9.10	14.80	10.80	11.30	7.40	0.50
31	Sonone Hospital	28.40	30.40	8.10	5.10	17.50	19.60	24.30	16.50	42.80	24.50
32	Life Care Hospital	14.50	0.00	10.80	0.00	101.80	0.00	43.00	7.00	13.50	0.00
33	Amravati Covid Care Center	6.70	8.60	7.80	9.40	11.40	9.50	12.40	8.30	10.50	11.60
34	Gurukrupa Hospital	6.30	8.30	9.10	11.20	12.60	11.40	9.30	11.40	12.40	10.20
35	Pathankar Hospital	1.00	0.50	1.00	0.50	2.00	0.50	1.50	1.00	0.00	1.00

Sr. No	Center	21st April.	22nd April.	23rd April.	24th April.	25th April.	26th April.	27th April.	28th April.	29th April.	30th April.	Total Waste in KG. of Month
1	**Superspeciality Hospital**	56.00	64.80	83.20	100.80	30.40	0.00	0.00	0.00	0.00	59.00	**1635.2**
2	VMV Hostel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**193.8**
3	Vilas Nagar , Covid Swab Center	0.50	1.00	0.50	1.00	0.50	1.00	0.00	0.50	1.70	0.50	**119.3**
4	Isolation Covid Swab Center, Daishra Maidan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**97.7**
5	Covid Raibow Hospital Dr. Rathi	0.00	0.00	0.00	0.00	10.80	0.00	0.00	0.00	0.00	15.20	**619.4**
6	Achuyat Maharaj Covid Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0**
7	**Axon Hospital**	18.00	12.50	21.00	28.00	7.40	0.00	0.00	0.00	0.00	10.80	**600.8**
8	Isolation Walgaon Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	**192.9**
9	Barabde Hospital	6.30	8.30	9.10	11.20	12.60	11.40	9.30	11.40	12.40	10.20	**302.7**
10	**Mahesh Bhavan**	8.90	11.90	7.90	12.20	14.40	14.60	7.40	29.80	14.60	24.50	**680.1**
11	Sunshine hospital dr. deshmukh	10.00	8.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**557.8**
12	**Dayasagar Covid Detected hospital**	13.00	15.80	25.00	13.00	12.20	16.00	12.80	29.80	16.00	26.80	**728.6**
13	**Best Hospital**	6.00	7.00	6.00	6.00	7.40	0.00	0.00	0.00	0.00	6.00	**378.3**
14	**Bakhtar Hospital**	9.00	8.00	9.00	10.00	8.50	0.00	0.00	5.00	0.00	13.20	**390.2**
15	Mahaveer Hospital Dr.Chordiya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**292.8**
16	**PDMMC Covid Hospital**	40.00	36.80	38.00	30.00	15.80	33.40	26.40	38.70	33.40	28.40	**943.8**
17	Get Life Hospital	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.30	**178.2**
18	City Hospital Dr.Pankaj Bagade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**127.2**
19	**SGBAU Covid-19 Testing Lab**	0.00	8.50	7.00	7.50	8.40	0.00	0.00	0.00	0.00	11.30	**249.8**

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20	Orchid hospital Dr. kakraniya	0.00	0.00	0.00	0.00	7.20	0.00	0.00	0.00	0.00	11.40	**158.1**
21	Shripad hotel dr. pravin rathi	0.00	0.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00	7.50	**192.6**
22	Kitukle hospital	0.00	0.00	2.00	3.00	4.60	0.00	0.00	0.00	0.00	26.80	**169.3**
23	Durvankur Hospital Dr. satish Dahake	28.20	29.10	32.50	19.10	27.40	20.40	23.40	23.30	0.00	38.10	**546.9**
24	Neharu maidan swob lab	1.00	0.50	1.00	0.50	2.00	0.50	1.50	1.00	0.00	1.00	**25.2**
25	Kusmanjali hospital Dr. Maliye	11.30	13.70	11.70	8.30	11.20	9.40	10.20	11.40	12.40	10.40	**313.1**
26	Dastur Nagar swob lab , amt	0.50	1.00	0.50	1.00	0.50	1.00	0.00	0.50	1.70	0.50	**148**
27	Covid Yadgire Hospital	15.20	16.20	14.20	15.40	17.40	14.40	15.70	16.50	12.40	14.60	**431.2**
28	Shri Sai Health Care Dr. Pankaj Diwan	6.80	8.70	9.40	10.50	12.30	12.20	13.60	10.20	14.80	13.60	**345.4**
29	Parashree Hospital	40.10	39.10	35.10	25.60	19.40	28.40	29.40	30.00	10.40	26.20	**660.5**
30	Nemani Mangalkaryalay	6.80	8.70	9.40	10.50	12.30	12.20	13.60	10.20	14.80	13.60	**378.7**
31	Sonone Hospital	12.20	10.20	14.20	11.30	13.40	10.50	14.10	9.10	16.80	14.40	**469.6**
32	Life Care Hospital	15.80	13.70	12.40	14.80	15.00	13.20	10.30	12.20	14.40	17.10	**468.4**
33	Amravati Covid Care Center	31.00	29.10	35.40	15.70	17.20	17.20	24.80	28.10	20.40	14.10	**562.2**
34	Gurukrupa Hospital	6.70	8.60	7.80	9.40	11.40	9.50	12.40	8.30	10.50	11.60	**294.6**
35	Pathankar Hospital	6.30	8.30	9.10	11.20	12.60	11.40	9.30	11.40	12.40	10.20	**213.4**
											TOTAL	**13665.8**

For Global Eco Save Systems

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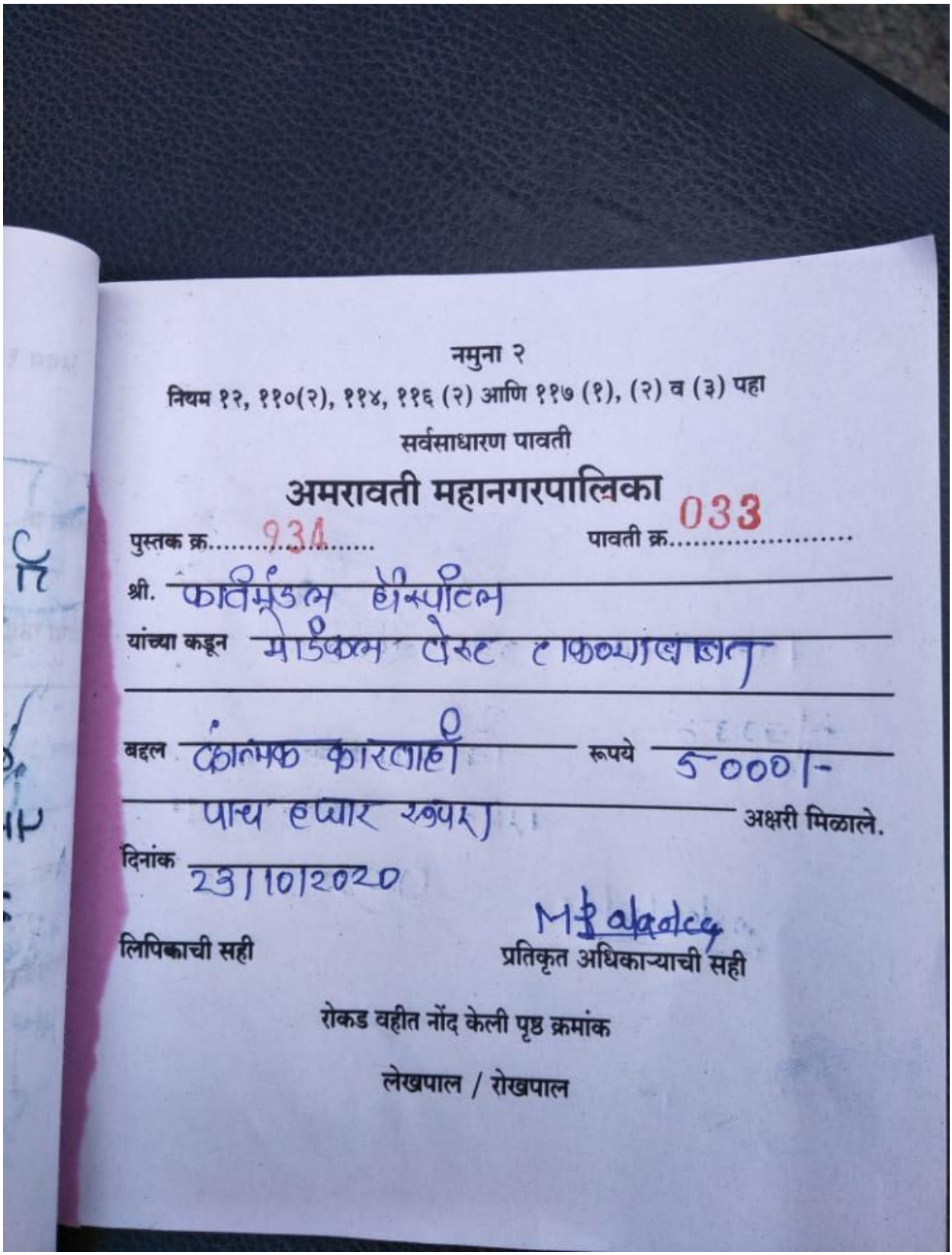
ANNEXURE A-49

THE COPY OF THE RECEIPTS OF THE FINES IMPOSED ON HOSPITALS



नमुना २

नियम १२, ११०(२), ११४, ११६ (२) आणि ११७ (१), (२) व (३) पहा

सर्वसाधारण पावती

अमरावती महानगरपालिका 033

पुस्तक क्र. 934 पावती क्र.

श्री. फातिमा हॉस्पिटल

यांच्या कडून मेडिकल लेव्हल हॉस्पिटल

बद्दल कोतमक कारवाही रूपये 5000/-

पाच हजार रुपये अक्षरी मिळाले.

दिनांक 23/10/2020

लिपिकाची सही

M Kalaldey

प्रतिकृत अधिकाऱ्याची सही

रोकड वहीत नोंद केली पृष्ठ क्रमांक

लेखपाल / रोखपाल

नमुना २

नियम १२, ११०(२), ११४, ११६ (२) आणि ११७ (१), (२) व (३) पहा

सर्वसाधारण पावती

अमरावती महानगरपालिका

पुस्तक क्र. 934 पावती क्र. 032

श्री. जी. एस. साहेब

यांच्या कडून पाणिकल टेस्ट टाकल्याबाबत

बद्दल प्रक्रियात्मक फारताही रूपये 5000/-

पाच हजार २७५१ अक्षरी मिळाले.

दिनांक 23/10/2020

लिपिकाची सही

M. Talvatkar

प्रतिकृत अधिकाऱ्याची सही

रोकड वहीत नोंद केली पृष्ठ क्रमांक

लेखपाल / रोखपाल

TRANSLATED COPY OF ANNEXURE R- 37

SAMPLE 2

See Rule 12, 110 (2), 114, 116 (2) and 117 (1), (2) and (3)

General Receipt

AMRAVATI MUNICIPAL CORPORATION

BOOK NO. 934 **RECEIPT NO. 033**

Received Rs. 5000, in words Rupees Five Thousand from Shree. Kavimandal Hospital as fine Imposed for Disposing Medical Waste.

Date: 23.10.2020

Sign/-

Signature of Clerk

Sign/-

Signature of Authorized Officer

Entered in Ledger Account Page No.

Accountant/ Cashier

SAMPLE 2

See Rule 12, 110 (2), 114, 116 (2) and 117 (1), (2) and (3)

General Receipt

AMRAVATI MUNICIPAL CORPORATION

BOOK NO. 934 **RECEIPT NO. 032**

Received Rs. 5000, in words Rupees Five Thousand from Shree. Dr. Khatri Saheb as fine Imposed for Disposing Medical Waste.

Date: 23.10.2020

Sign/-

Signature of Clerk

Sign/-

Signature of Authorized Officer

Entered in Ledger Account Page No.

Accountant/ Cashier

Dr. Gupal

-TRUE COPY-

पर्यावरण विभाग
आ.क्र. 651
दिनांक 01/10/2020

1145

ANNEXURE A-50

National Green Tribunal/राष्ट्रीय हरित अधिकरण
Western Zone Bench/पश्चिमी क्षेत्र न्यायपीठ
New Administrative Building, D-Wing/नवीन प्रशासनिक इमारत, डी-विंग,
1st floor, Opposite Council Hall /प्रथम मंज़िल, विधान भवन के पीछे,
Camp, Pune - 411 001/कैम्प, पुणे- 411 001

****

O. W. No. NGT/ WZ/ PUNE/626/2020
Dt. 24.09.2020

अमरावती महानगरपालिका
सा.प्र.विभाग
आ.क्र. 10225 दि. 29/09/2020
विभागाचे नाव.....

To,

Amravati Municipal Corporation,
Through Its Commissioner,
Rajkamal Square, Amravati 444601
Contact No. 07212561569
Email ID: amravaticorporation@yahoo.in

आयुक्त/उपायुक्त(१)/उपायुक्त(२)

पर्यावरण विभागीय अनुवर्ती खाली

आयुक्त
म.न.पा. अमरावती

Subject: Show cause notice...

Reference: Order dt. 22.09.2020 passed by the Hon'ble NGT (PB), New Delhi in O. A. No. 60/2019 (WZ)...

Sir,

Whereas the Hon'ble National Green Tribunal (PB), New Delhi (Through Video Conferencing) vide order dt. 22.09.2020 in O. A. No. 60/2019 (WZ) (Ganesh Dadarao Anasane Vs. Amravati Municipal Corporation & Anr) has passed the following order,

> *"...(iv) A show cause notice be issued to the AMC as to why the necessary and preliminary action be not initiated and forwarded against the officials and officers working there and not enable to control and manage the solid waste management according to the rules and why the necessary and preliminary action should not be initiated against them for non-compliance of the rules...*
>
> *List it on 04.11. 2020."*

Hence, this show cause notice for compliance.

Encl: As above

24/9/2020
(R. M. Giri)
Asstt. Registrar
NGT(WZB), PUNE

National Green Tribunal Pune

Dnerupal

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