

महाराष्ट्र जीवन प्राधिकरण

दूरध्वनी क्रमांक
(सी.) ०७२१ - २६६४२१२
२६६४३६०
(फैट) ०७२१ - २६६४२१०
फैक्स ०७२१ २ २६६३३३२



मुख्य अभियंता
महाराष्ट्र जीवन प्राधिकरण
प्रादेशिक विभाग "अभियंतृ" मारवटेपट्टी,
अमरावती - ४४४ १०१.
E-mail : ce.amravati@mjp.gov.in

सुधारीत तांत्रिक मंजूरी आदेश

तांत्रिक मंजूरी बाब क्र.२४ फॉर्म क्र.८५ माहे नोव्हेंबर २०२१

- विषय :-** अमरावती महानगरपालिके अंतर्गत बायोमायनिंग (Bio-mining) च्या अंदाजपत्रकास सुधारीत तांत्रिक मंजूरी प्रदान करणेबाबत.
- संदर्भ :-** १) अधीक्षक अभियंता, मनौप्रा मंडळ, अमरावती यांचे पत्र क्र.तांशा-३/२१५२ दि.२६.१०.२०२१.
२) या कार्याचे तांत्रिक मंजूरी पत्र क्र.रेचिशा/३१९ दि.१८.२.२०२१.

उपरोक्त संदर्भीय पत्र क्र.२ अन्वये अमरावती महानगरपालिकेच्या घनकचरा व्यवस्थापनासाठी सुकळी कम्युस्ट डेपोवरील जमा उर्वरित घनकचऱ्याचे बायोमायनिंग करण्याचे प्रकल्प अहवालास तांत्रिक मंजूरी प्रदान करण्यात आलेली आहे.

अधीक्षक अभियंता, मनौप्रा मंडळ, अमरावती यांचे संदर्भीय पत्र क्र.१ अन्वये सदर तांत्रिक मंजूरी घेण्यात आलेले परिमाणाकरीता सध्या २०२० मध्ये करून त्यानुसार परिमाण घेण्यात आले होते. परंतु दिवसेंदिवस कचऱ्याचे परिमाण वाढत असल्याने पुन्हा सध्या सप्टेंबर २०२१ मध्ये करण्यात आला आहे. त्यानुसार परिमाणामध्ये बदल झाला आहे. त्याप्रमाणे सुधारीत प्रस्तावाची किंमत रु.१८,९६,६३,६००/- (अक्षरी रु.अठरा कोटी, छान्नव लक्ष, त्रिसष्ट हजार, सहाशे फक्त) अंदाजपत्रकीय किंमतीस बाब क्र.२४ फॉर्म क्र.८५ माहे नोव्हेंबर २०२१ अन्वये सोबत जोडलेल्या अटी व शर्तीच्या अधीन राहून "सुधारीत तांत्रिक मंजूरी" प्रदान करण्यात येत आहे.

अटी व शर्ती

- 1) सदर प्रस्तावास शासनाच्या नगरविकास विभागातर्फे स्वच्छ महाराष्ट्र अभियान अंतर्गत निधी उपलब्ध करून देण्यात येणार आहे. त्यामुळे या कार्यक्रमासाठी शासनाने वेळोवेळी निर्गमित केलेले शासन निर्णय, मार्गदर्शक सूचना यांच्या अटी व शर्तीचे पालन करण्यात यावे.
- 2) प्रस्तावास तांत्रिक मंजूरी जरी मनीप्रामार्फत देण्यात आली असली तरी प्रत्यक्ष कामाच्या गुणवत्ते बाबत तसेच निधी उपलब्धतेबाबत कुठलीही जबाबदारी मनौप्रा स्विकारणार नाही.
- 3) योजनेस प्रशासकीय मान्यता मिळाल्या नंतर प्रशासकीय मान्यतेतील अटी व शर्तीचे तंतोतंत पालन करावे.
- 4) या प्रकल्पातील End Product (Compost व RDF) ची विल्हेवाट लावण्याची सर्वस्वी जबाबदारी महानगरपालिकेची राहिल.
- 5) अंदाजपत्रकात जी परिमाणे दिली आहेत त्या पृष्ठरूप सदर परिमाणांची खातरजमा करून त्याप्रमाणे कामाचे देयक हे प्रत्यक्ष झालेल्या परिमाणेप्रमाणेच अंदा करण्याची जबाबदारी महानगरपालिकेची राहिल.

AMRAVATI MUNICIPAL CORPORATION

Name of Work: - Reclamation of scientific land by Conducting Bio-remediation and Bio-mining of legacy waste at Sukali compost depot. for solid waste management in Amravati Municipal Corporation Area.

'Recapitulation Sheet'

Sr No.	REF.	DESCRIPTION OF ITEM	QTY.	UNIT	RATE	AMOUNT (In Rs.)
1	MUP/SE CPDM/S WM/383 18 DT0 4-07- 2018	Bio-mining old Dumped waste via Cutting. Dozing. Spreading, Spraying, Screening, and 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 for reclamation of land and Compacting the M.S.W/soil with the help of Dozer itself up to required line & level. Excess of waste such as manure/iner/RDF will be shifted within the plot as per instruction given by Engineer-in-Charge and SWM rule 2016. The newly filled area must also be compacted with the dozer up to required compaction etc. complete as directed by Engineer-in-Charge.	451580	Cum	420	18,96,63,600/-
GRAND TOTAL In Rs.						18,96,63,600/-

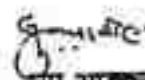
(In word – Eighteen crore ninety six lakh sixty three thousand and six hundred rupees.)


Navinrao M. Pawar
City Engineer




वैद्यकीय अधिकारी (सिंचना)
महाराष्ट्र जिवन प्राधिकरण
"Recommended"
Executive Engineer
Maharashtra Jeevan Pradhikaran
Division, Amravati


"Recommended"
Superintending Engineer
Mah. Jeevan Pradhikaran
Circle, Amravati


उप आयुक्त
महानगरपालिका, अमरावती

TECHNICAL SANCTION
Technically Sanctioned for
Rs. 18,96,63,600/- (Revised)
Rs. Eighteen Crores ninety six lakh
Sixty three thousand, Six hundred only.
Vide Item No. 24 of form No.85
for the month of November - 2018


Chief Engineer (U/C)
Maharashtra Jeevan Pradhikaran
Region, Amravati

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, Maharashtra-444601



Submitted To:

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SEPT-2021

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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 Swachha Maharashtra Mission (SMM) for implementation of Swachha 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

Sr. No.	Description of Item	Total Amount
18	GST (12%) (For Item 1+2+3+4+5+6+7+8+9+10+11+13+14+15+16)	20237349.00
	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 (As per Oct-2019 survey) 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.

Contractor has completed the bioremediation and biomining of legacy waste for the approved DPR quantity with area reclamation of 3.28 Ha in Dec-2020.

At present, the construction of the 200 TPD processing treatment plant with windrow composting at Sukhali Compost Depot is in progress on the part of cleaned area. The construction of 100 TPD processing and treatment plant at Akoli site is completed and plant is in operation since Aug-2021.



However, due to non-availability alternate site and ongoing construction works of processing treatment plant at Sukhali Compost depot; part of the fresh waste is processed and treated at Akoli Site while other part being dumped on daily basis at Sukhali Compost Depot.

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, in order to clean the entire site of legacy waste and thereby to reclaim the site for proposed construction of processing, treatment plant, sanitary landfill site and Biogas plant, Hon'ble Commissioner AMC instructed to prepare revised DPR and send request proposal for Urban Development Department Govt of Maharashtra.

In order to derive the existing quantity of legacy waste, Electronic Total station survey was conducted in Sept 2021 at Sukhali compost. Details of the total station survey report 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; in Oct 2019, 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 and especially 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 at Sukhali Compost Depot; fresh waste is being dumped on existing site. Bioremediation and biomining of legacy waste is completed for 131945 Cum quantity of approved DPR component.

Figure 2-1 : Existing situation

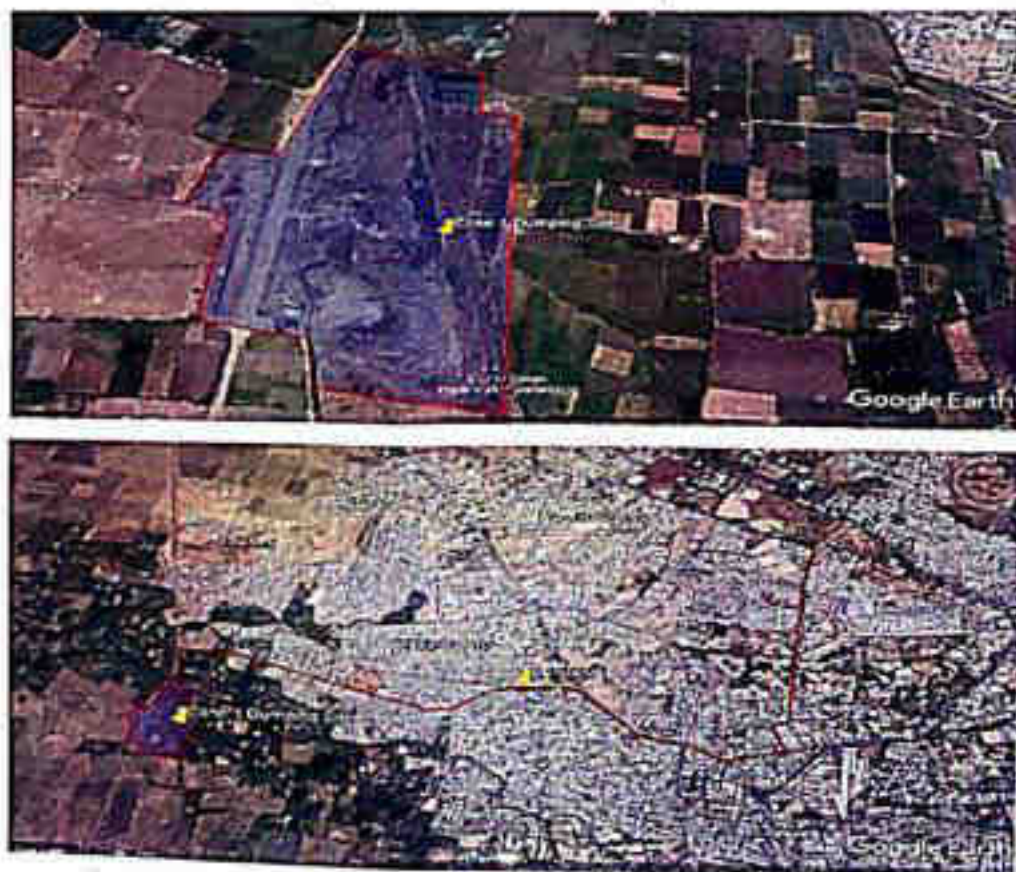




2.1.1 Location of Sukhali Compost Depot

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 had 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. Contractor has completed the bioremediation and biomining of legacy waste for the approved DPR quantity with area reclamation of 3.28 Ha in Dec-2020.

Figure 2-3 : Phases of Bioremediation and Biomining of legacy waste Sukhali compost depot





Cleaned are of legacy waste in phase-1



Cleaned are of legacy waste in phase-1

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 3rd September 2021. 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 3rd Sept 2021.

1. Total area under legacy waste is 6.55 ha with existing total quantity of legacy waste on site is 451580 Cum.
2. Quantity of legacy waste on right side of akoli ring road is 403595 Cum under area of 4.92 ha.
3. Quantity of legacy waste on left side of akoli ring road is 47985 cum under area of 1.63 ha.
4. area of legacy waste cleaned is 3.25 Ha recovered in phase-1.

Above details are as on 3rd Sept 2021. At present, daily waste approx 200 MT being dumped at same site only in demarcated are at northern side of the dump site.

Following figure provides images of total station survey conducted for quantification in 3rd Sept 2021.

Figure 2-4 : Total station survey Sept 2021



2.3 Proposed Methodology for conducting bio-remediation and bio-mining of legacy waste at Sukhali 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.

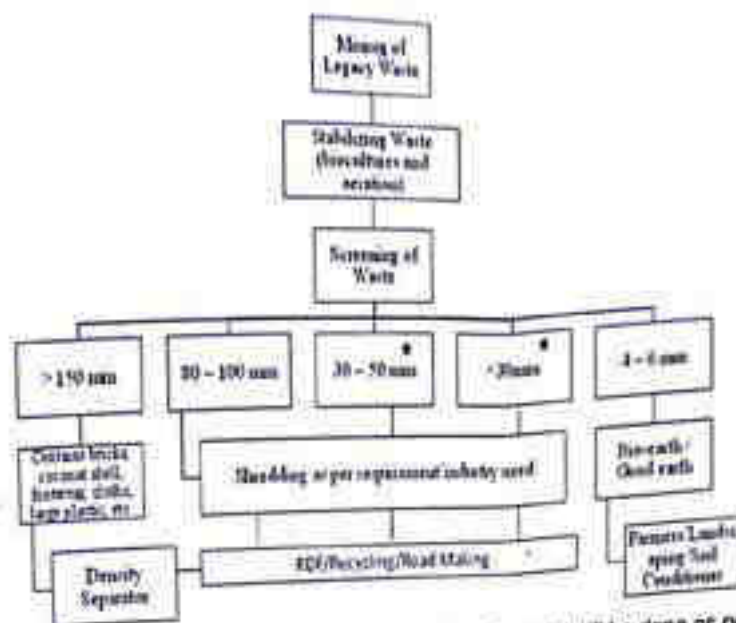
4. Shredder for dry waste- RDF and bailing machine if required.

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. JCBs will 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 down 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.



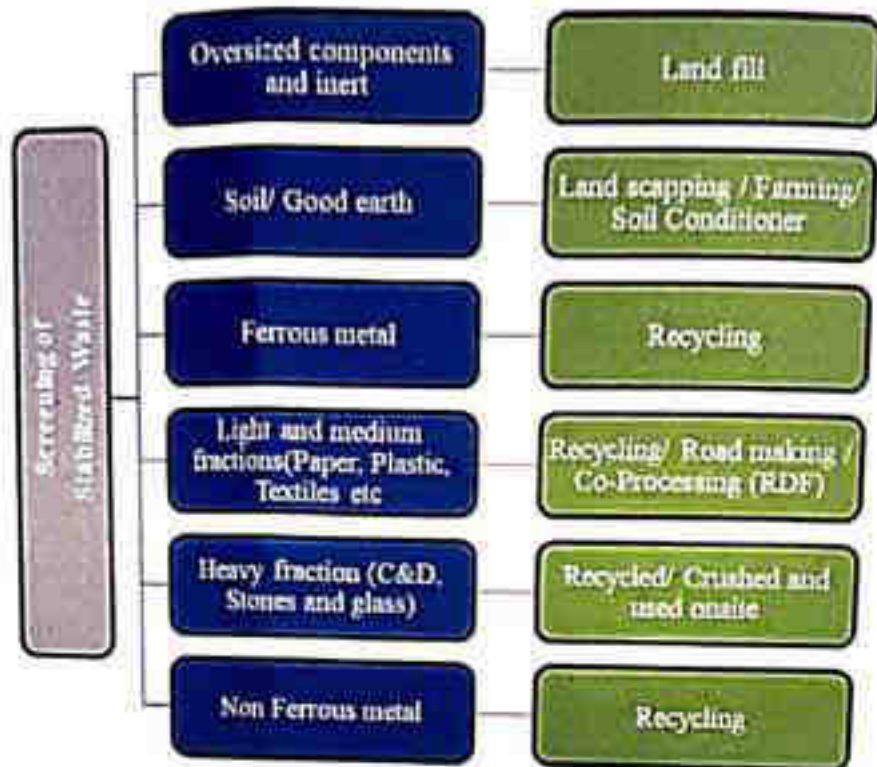
The above methodology is tentative; during the execution changes will be done as per the actual requirement.

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.

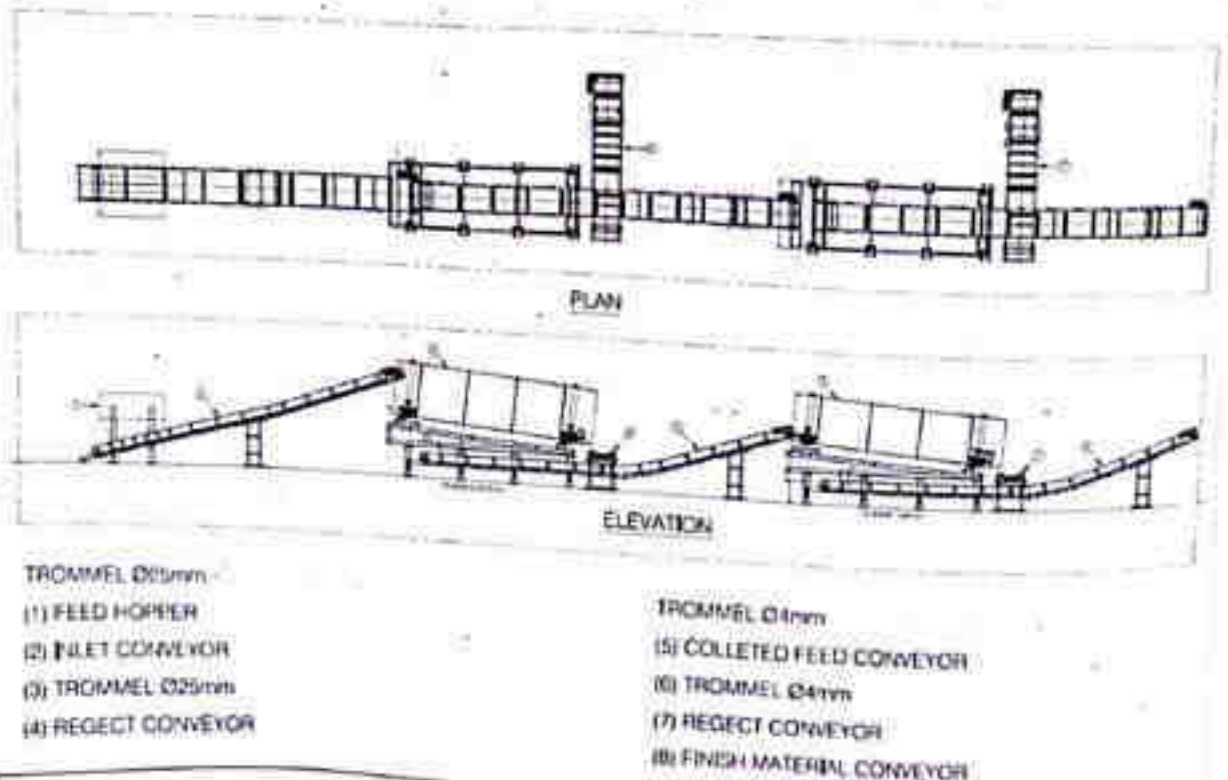
Integration with kabadiwalas within the local body to see who will be willing to pick up or accept which items. storage sheds will be provided for use by waste-picker groups or kabadiwalas. Transporters will be identified who can transport different fractions out on their return trips for inert material 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



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 3rd Sept 2021. 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/SE CPDM/ SWM/3 83/18/D T09-07- 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 .	451580	Cum	420	18,96,63,600/-
GRAND TOTAL						18,96,63,000/-

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

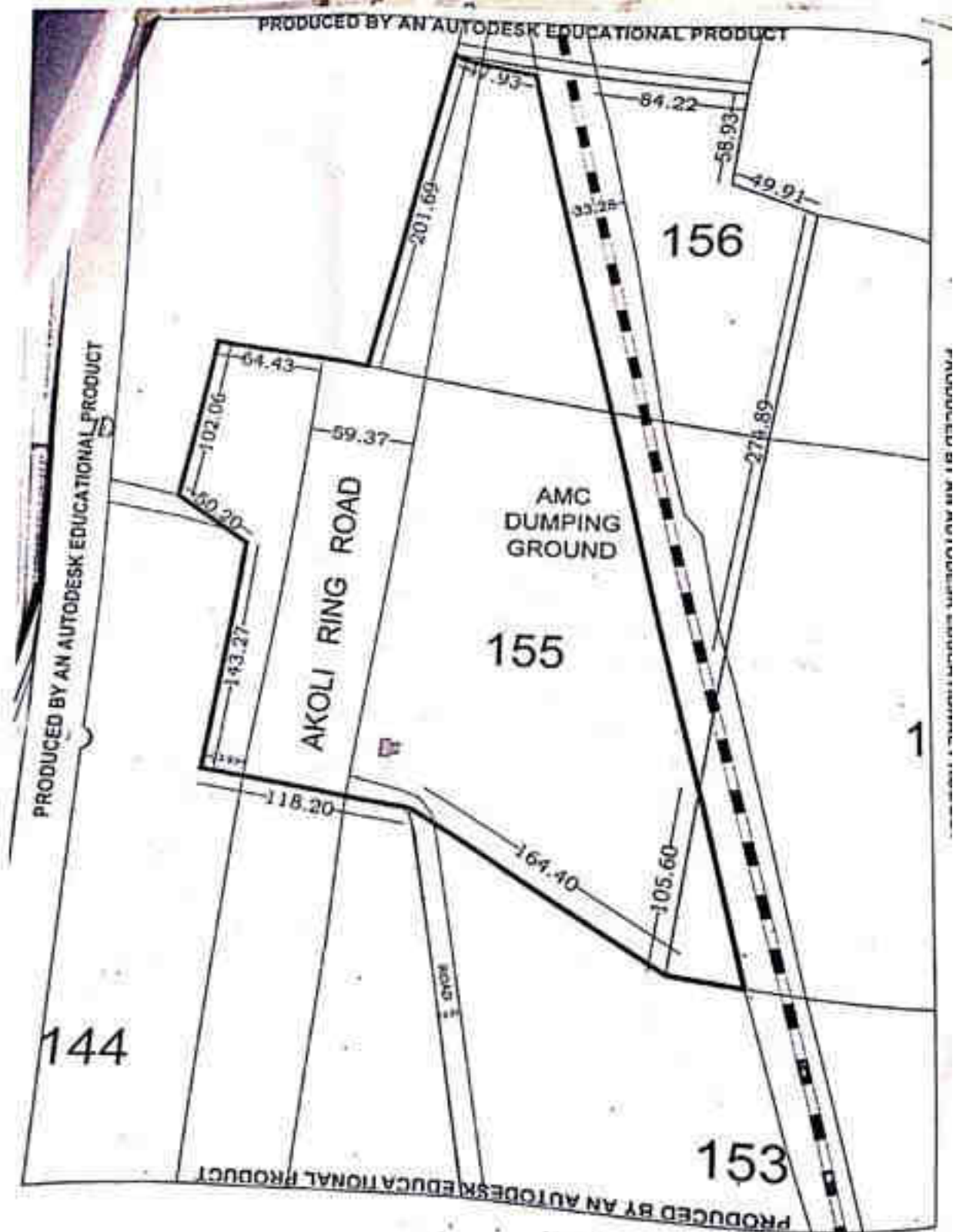
After approval of DPR; tender document will published as per the model RFP provided by Hon'ble Urban Development Department, Govt of Maharashtra. Contractor shall be strictly instructed to execute the work as per the methodology given and Terms of reference mentioned in the RFP. Payment terms shall be 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°58'1.04"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

3.2.2 Site measurement details



3.3 Authorization from MPCB

MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 4010437/4020761
4037124/4035273
Fax : 24044532/4024068 /4022515
Email : rphc@mpcb.gov.in



Kalparu Point, 3rd & 4th floor,
Sion- Matunga Scheme Road No. 8,
Opp. Cine Planet Cinema, Near Sion Circle,
Sion (E),
Mumbai - 400 022

No: BO/MSWAB/12-200/000004

Date: 01/10/2020

FORM -II
[See - Rule 15 (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 27/11/2016

(E. Ravediran, IAS)
Member Secretary

D. A. - Annexure-1

Copy f.w. to-

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

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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.	2000 MT/Day	<ol style="list-style-type: none"> 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.

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Amravati Municipal Corporation

Amravati Municipal Corporation,
Amravati, Maharashtra

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.

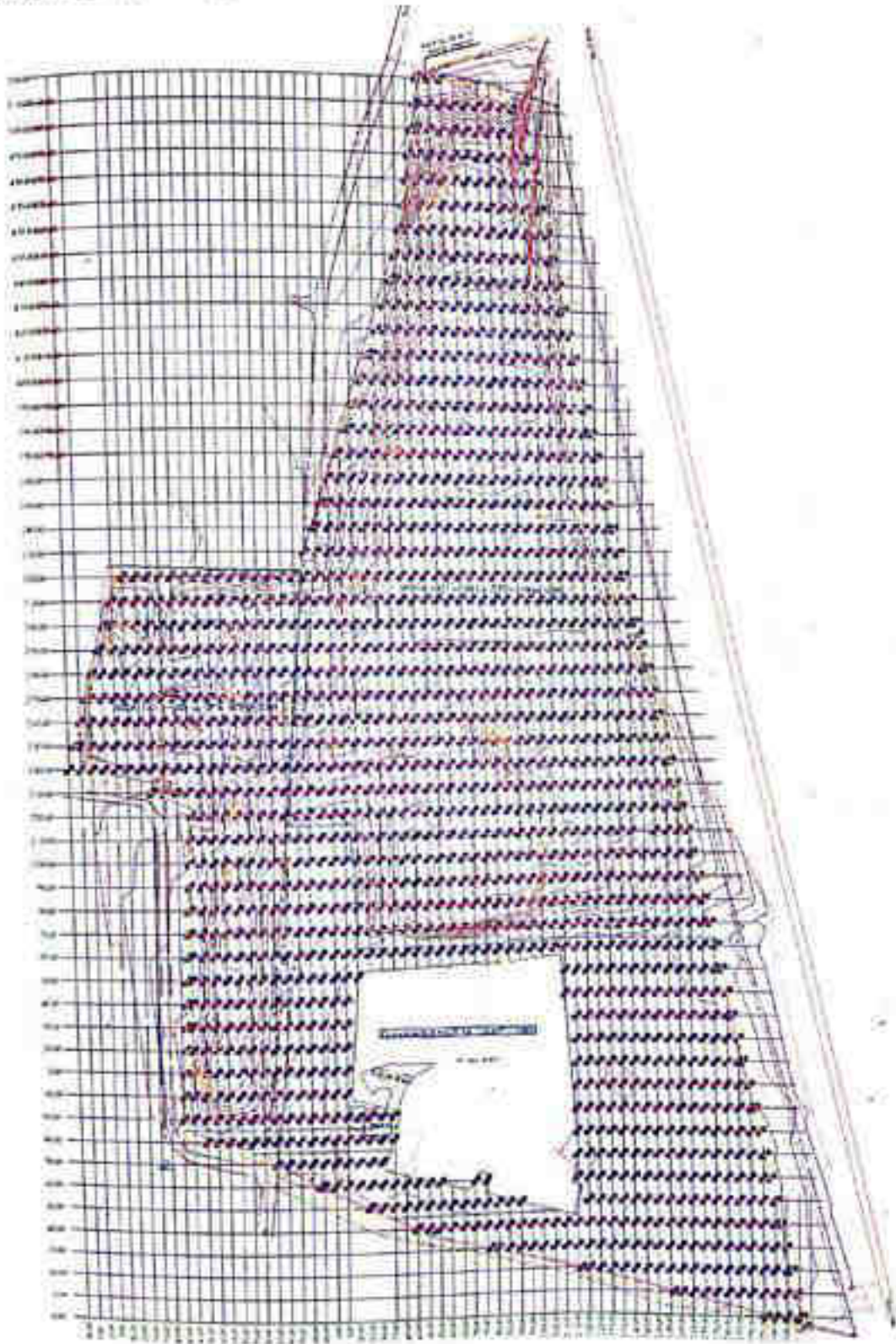
(E. Ravikiran, IAS)
Member Secretary

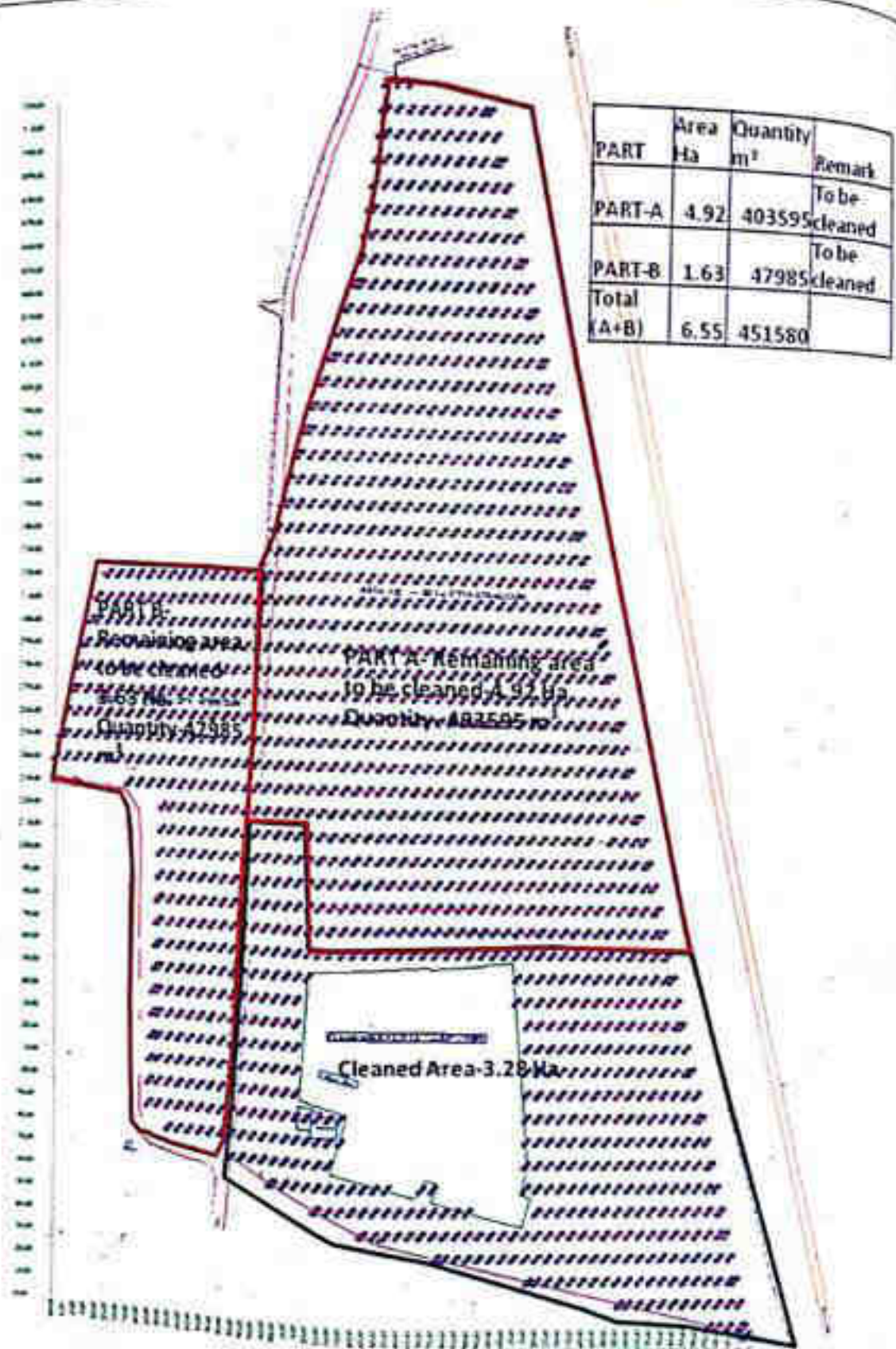
Amravati Municipal Corporation

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3.4 Drawings for Total station Survey conducted for sukali compost depot

1.0 Contour survey drawing





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 sukall compost deopt. Amravati. Right side of akoli ring road

Chainage In "m"	Length In "m"	Area In m ²	Average area In "m ² "	Quantity In "m ² "
170		830.819		
180	10	1255.577	1043.198	10431.98
190	10	1308.846	1282.2115	12822.115
200	10	1439.079	1373.9625	13739.625
210	10	1426.776	1432.9275	14329.275
220	10	1395.198	1410.987	14109.87
230	10	1449.564	1422.381	14223.81
240	10	1552.815	1501.1895	15011.895
250	10	1610.848	1581.8315	15818.315
260	10	1549.971	1580.4095	15804.095
270	10	1504.415	1527.193	15271.93
280	10	1469.518	1486.9665	14869.665
290	10	1416.703	1443.1105	14431.105
300	10	1453.644	1435.1735	14351.735
310	10	1486.298	1469.971	14699.71
320	10	1456.553	1471.4255	14714.255
330	10	1435.063	1445.808	14458.08
340	10	1395.958	1415.5105	14155.105
350	10	1367.599	1381.7785	13817.785
360	10	1413.759	1390.679	13906.79
370	10	1418.967	1416.363	14163.63
380	10	1302.67	1360.8185	13608.185
390	10	1195.492	1249.081	12490.81
400	10	1166.979	1181.2355	11812.355
410	10	1043.012	1104.9955	11049.955
420	10	1017.293	1030.1525	10301.525
430	10	942.803	980.048	9800.48
440	10	757.958	850.3805	8503.805
450	10	664.185	711.0715	7110.715
460	10	687.321	675.753	6757.53
470	10	718.296	702.8085	7028.085
480	10	648.06	683.178	6831.78
490	10	526.805	587.3325	5873.325
500	10	354.803	440.704	4407.04
510	10	104.416	229.6095	2296.095

Chainage in "m"	Length in "m"	Area in m ²	Average area in "m ² "	Quantity in "m ³ "
520	10	14.16	59.268	592.88
Total Quantity Part A in m³				403595.335

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.

Chainage in "m"	Length in "m"	Area in m ²	Average area in "m ² "	Quantity in "m ² "
80		17.485		
90	10	74.497	45.991	459.91
100	10	163.522	119.0095	1190.095
110	10	183.902	173.712	1737.12
120	10	182.274	183.088	1830.88
130	10	168.466	175.37	1753.7
140	10	180.664	174.565	1745.65
150	10	184.425	182.5445	1825.445
160	10	195.913	190.169	1901.69
170	10	181.206	188.5595	1885.595
180	10	175.734	178.47	1784.7
190	10	178.798	177.266	1772.66
200	10	192.045	185.4215	1854.215
210	10	184.893	188.469	1884.69
220	10	176.658	180.7755	1807.755
230	10	156.345	166.5015	1665.015
240	10	202.32	179.3325	1793.325
250	10	283.977	243.1485	2431.485
260	10	276.528	280.2525	2802.525
270	10	277.204	276.866	2768.66
280	10	281.39	279.297	2792.97
290	10	299.994	290.692	2906.92
300	10	281.254	290.624	2906.24
310	10	266.622	273.938	2739.38
320	10	82.26	174.441	1744.41
Total Quantity Part B in m²				47985.035

3.5.3 Drawings

