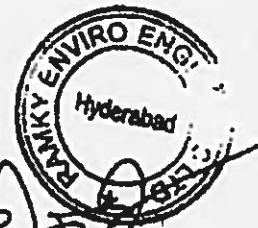


3175

Annexure II

4075
5

Assumptions in Financial Analysis		
Capacity of Plant	MW	6
1st year PLF	%	70%
2nd year onwards-PLF	%	70%
No. of days -operations	days	363
Gross Generation	in MU	37
Auxiliary Consumption	%	20.3%
Bio-methanation	%	11%
Power	%	0%
Net Generation	%	9%
Debt:Equity ratio	in MU	29.32
Grant		2.33:1
Equity	%	0%
Debt	%	30%
Tenor of loan	%	70%
No. of quarters	yrs	10
Rate of interest before commissioning	months	40
Rate of interest After Commissioning	%	12%
Moratorium	%	12%
Installment start	year	1
Installment end	year	2
ROE	year	12
WCL rate of interest	%	14%
WC margin	%	12%
O&M expense for the project	%	25%
O&M escalation	Rs. Mn	7.8
Fluff production	%	4%
Fluff (on-line fired into the boiler)	TPD	170
Biomass allowed (25%)	TPD	170
Cost of Biomass (per Ton)	TPD	57
No. of Days	Rs/Ton	1500
Biomass Cost - First Year		330
No. of working days	Rs Mn	28
Fluff production-yearly	days	330
Gross Calorific Value of RDF	TPD	56100
Overall efficiency of power plant	kcal/kg	2600
Plant Heat Rate	%	21%
Requirement of RDF/wh	kcal/kg	4095
Methane generation per day	kg/kwh	1.38
Calorific Value of Methane	M3/day	0
Organic fertiliser produced	Kcal/kg	4500
Cost of Organic Fertiliser	in TPD	0
Escalation	in Rs	1000
Depreciation Rate	in %	4%
Income Tax- Basic Rate	in %	3.60%
Surcharge	in %	30.00%
Cess	in %	10.00%
Corporate Tax with Surcharge & Cess	in %	2.00%
Minimum Alternate Tax (MAT)	in %	33.60%
MAT with Surcharge & Cess	in %	7.50%
Royalty fee payable to MB	in %	8.40%
Lease rental	Paise	0.00
CDM revenue	mn	0.00
	mn	0



3176

4074

652

TABLE - 2
BASIC DATA FOR DESIGN

Site information and Meteorological Data are furnished below

Climate	Sub tropical Humid
Ambient Temperature	
Maximum (extreme)	40 Deg C
Minimum (extreme)	35 Deg C
Humidity	
Maximum	90%
Minimum	40%
Wind velocity for design	As per IS
Rainfall (Average)	166.22 cm
MSL	46.93 m

Refuse Derived Fuel

Description	RDF Fluff
Shape	Irregular
Size	150X150
Bulk Density	0.01 MT/m3
Proximate Analysis	
Moisture	10%-20%
Ash Content	10%-20%
Volatime Matter	40%-80%
Fixed Carbon	10%-20%
Ultimate Analysis	
Moisture	10%-20%
Mineral Matter	15%-25%
Carbon	35%-40%
Hydrogen	5%-8%
Nitrogen	1%-1.5%
Sulphur	0.2%-0.5%
Oxygen	25%-30%
GCV	2800 Kcal/kg
Ash Fusion Temperature	
Initial Deformation Temperature	860°C



TRUE COPY

Description	RDF Fluff
Softening Temperature	950°C
Hemispherical Temperature	1040°C
Fluid Temperature	1100°C
Chloride Content	0.04% - 0.06%
Elemental Ash Analysis	
Silica	53.1%
Alumina	11.18%
Iron Oxide	4.87%
Titanium Dioxide	0.89%
Calcium Oxide	13.15%
Magnesium Oxide	2.9%
Sodium Oxide	5.79%
Potassium Oxide	1.56%
Sulphur Trioxide	2.55%
Phosphorous Pentoxide	1.43%
CO2 emission (while burning RDF)	7.4%

3177
 4075
 643

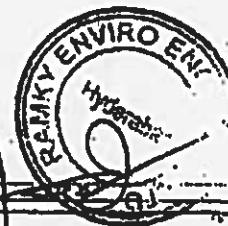
TRUE COPY -

3178
4076
457

Table 3

RDF PLANT: REQUIREMENT OF FIRE FIGHTING EQUIPMENT

S.no.	Location	Type of Fire Extinguisher	Qty.
1.	MSW (receiving) Yard (Y1) area 2031 Sq. Mtrs.	Fire Extinguisher water CO ₂ 50 liter capacity as per IS 940 placed along the Periphery of yard	12 Nos
2.	Yard for pre-dried MSW (Y2) area 2139 Sq. Mtrs.	Fire Extinguisher water CO ₂ 50 liter capacity as per IS 940 placed along the Periphery of yard	12 Nos
3.	Dried MSW storage yard (Y3) area 1028 Sq. Mtrs.	Fire Extinguisher water CO ₂ 50 liter capacity as per IS 940 placed along the Periphery of yard.	9 Nos
4.	Storage yard (Y4) 745 Sq. Mtrs.	Fire Extinguisher water CO ₂ 50 liter capacity as per IS 940 placed along the Periphery of yard.	4 Nos
5.	MCC 1 for Multi Stage Rotary Screen & Disintegrator	Fire Extinguisher carbon Dioxide as per IS : 2878, 9.0 kgs capacity Fire Extinguisher multipurpose dry powder type as per IS : 13849, 5 kgs capacity.	1 No. 1 No.
6.	MCC 2 for Primary Shredder	Fire Extinguisher carbon Dioxide as per IS : 2878, 9.0 kgs capacity Fire Extinguisher multipurpose dry powder type as per IS : 13849, 5 kgs capacity.	1 No. 1 No.
7.	MCC 3, PDB & Sub Station	a. Fire Extinguisher carbon Dioxide as per IS : 2378, 9.0 kgs capacity b. Fire Extinguisher multipurpose dry powder type as per IS : 13849, 5 kgs capacity. c. Fire Extinguisher multipurpose dry powder type as per IS : 13849, 5 kgs capacity. d. Fire Extinguisher carbon Dioxide as per IS : 2878, 4.5 kgs capacity e. Fire Extinguisher multipurpose dry powder type as per IS : 13849, 5 kgs capacity.	1 No. 1 No. 1 No. 1 No. 1 No.
8.	MCC 4	a. Fire Extinguisher carbon Dioxide as per IS : 2878, 4.5 kgs capacity b. Fire Extinguisher multipurpose dry powder type as per IS : 13849, 5 kgs capacity.	1 No. 1 No.
9.	Puff storage	a. Fire Extinguisher multipurpose dry powder type as per IS : 13849, 5 kgs capacity.	2 Nos.
10.	Pellet storage	a. Fire Extinguisher multipurpose dry powder type as per IS : 13849, 5 kgs capacity.	2 Nos.



TRUE COPY

TABLE-4
LIST OF SUPPLIERS

S.No	Description	Address	Telephone	Telefax	Email	Website
	Mechanical Equipments (Primary Shredder, Chain Conveyor, Vibrating Feeder)			Drwg No.: TW/MCL- ME-GA-001	Item Nos. 7A, 7B, VF1, VF2, VF3, 14, 31, 82	
	Simplex Group of Industries	1515, Herkunt Tower, 9B, Nehru Place, ND - 110019	011-26414846 011-26431347	011-26446303	simplex2@rediffmail.com	www.simplexgroup.com
	Shree Engineering Corporation Ltd.	113, Masjid Moh. DDA Commercial Complex, New Delhi -48	011-20212907	011-51639277		
	Savaji Iron & Engineering Co. Ltd.	Chham Road, Baroda, Gujarat - 390 002	0265-2793650	0265-2791914	SAVJII@GULSONLINE.COM	WWW.SAVJII.COM
	Rotary Screen, Chain Conveyor, Vibrating Feeder			Drwg No.: TW/MCL- ME-GA-001	Item Nos. 3, 4, VF1, VF2, VF3, 11, 11A	
	New Life Engineering Co.	5/1, Malilal Mullick Lane, Kolkata - 700 035	033-25785795		spbarange@gmail.com	
	Monica Processing Plants	44 D-2, Sarwar Road Industrial Estate, Indore-43 (M.P.)	0731-2720337	0731-5023323	info@monicaorganic.com	
	Mayo Vessels & Machines	C-19, MIDC, Waghji, Aurangabad-431 133.	2354685	2336408	mayo_vessels@rediffmail.com	

3173



Handwritten signature and initials.

TRUE COPY

6 MW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, GUWAHATI

S. No.	Description	Address	Telephone	Telefax	Email	Website
1	Air Classifier/Cyclone, Secondary Shredder, Pellet Mill			Drwg No.: TW/MCL- ME-GA-001		Item Nos. 6A, 6B 3A, 11, 12, 15A, 15B, 17A, 17B, 17C
2	Hi-Tech Acid Project Pvt. Ltd.	Plot No-70, Sector-6, Faridabad - 121006 (Haryana)	0129-2243946, 2247187 9810593652		hitechproject@rediffmail.com	
3	Humboldt Wadco India Pvt. Limited	CC-29, 2 nd Floor, Nehru Enclave, New Delhi - 110019	011-26227325 - 28	011-26227215-16	marketing@hw-india.com	
4	Foster Wheeler Inc.	P.O. Box 510 Three River Falls, MN 56701	(218) 681-1927	(218) 681-2037	fosterw@fosterwheeler.com	
5	Krauss-Maffei Inc.	P.O. Box 11388 Wichita, KS 67202-0388	(316) 267-4281	(316) 744-7355	sales@k-m.com	
6	Kongskilde Limited	321 Thames Rd: East Exeter, ONNOM 1S3	(519) 235-0840	(519) 235 29 31	mail@k.kongskilde.com	
7	Rader Companies	P.O. Box 181048 Memphis, TN 38181	(901) 365-8855			
8	Sterling Systems/Sterling Blower Co.	P.O. Box 219 Richmond, VA	(804) 525-4030		rob@sterlingblower.com	
9	Conveyor Mills			Drwg No.: TW/MCL- ME-GA-001		Item Nos. 2, 5, 8, 9C, 1, 12, 13, 16
10	Hyquip House	1-1-564/1/A, Gandhinagar, Hyderabad - 500020	040-27607907, 27607908, 9347208807	040-55684872	neh@hyquip.com	

3180



Handwritten signature and initials.

TRUE COPY

6 MW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, GUWAHATI

Sr. No.	Description	Address	Telephone	Telefax	Email	Website
2	M/s Precision Conveyor Systems	B-26, Hill Apartment, Plot No. 17, Sector - 3, Rohini, Delhi-85.	011-27564654 98100014957		precision@rediffmail.com	
3	M/s Shree Conveyors Systems Pvt. Ltd.	912, Vistal Tower, District Centre, Jorhatpuri, New Delhi-110058	011-25547822, 23, 24		shree@del3.vsnl.net.in shree_one@touchisindia.net	
4	Dryer Systems			Dwg No.: TWMCCL- ME-GA-001	Item Nos. 7A, 7B	
5	Arrowhead Separating Engg. Pvt. Ltd.	M-16/15 T.I.C., Industrial Area, Village Pawane, Thane Belapur, road, New Mumbai - 400703	27685252, 27615472, 27613208	27683543	vmundia@hotm.iiit.com	www.growne.co growne.com
6	SSP (Pvt.) Ltd.	Research & Development Centre, 13, Mile Stone, Mathura Road, Faridabad - 121003, India	0129-2275768, 2277442	0129-2277441	info@sspltdic.com	www.sspltdic.com
7	DOT Brands			Dwg No.: TWMCCL- ME-GA-001	Item Nos. 1A, 1B, 1C	
1	M/s Reva Industries Ltd.	Plot No. 28, Sector -25, N.I.T. Faridabad - 121 004, Haryana	0129-5059967 5069965	0129-5069969	revaindustries.com	www.revaindustries.com
2	M/s Carrymore	P.O. Pail, Sohna Road, Nangla Gujran, Faridabad - 121 0014 (Haryana)	0129-2480358, 2470022, 3090697	0129-2232975 9811141055	carrymore@rediffmail.com	
3	Weigh Bridge			Dwg No.: TWMCCL- ME-GA-001	Item Nos. W	
1	Aman Scales (P) LTD.	14-A, Nehru Ground, (Nr. Main Post Office) N.I.T. Faridabad (Haryana)	0129- 2415312/241546 3/2411862	0129-2284743 2415463	aman_scales@rediffmail.com	
2	Tula Digital (P) P. LTD.	ACI Marketing, A3, Shop, Indrapuri, New Delhi-110012	25831267 25835053 981133574	25834966		

3181
4079


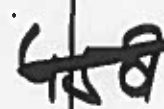
TRUE COPY

DETAILED PROJECT REPORT

189 GWMCPL

6 MW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, GUWAHATI

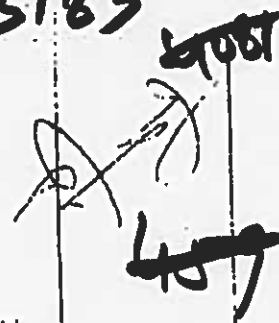
Description	Address	Telephone	Telefax	Email	Website
Balers					
American Baler Company	800 East Center Street Bellvue, Ohio 44811	(419) 483-5790	419-483-3815		
Enterprise Baler Company	P.O. Box 15546 616 S. Santa Fe Santa Ana, California	(714) 835-0541		ova@enterpriseco.com	enterpriseco.com
Hart Waste Management Group Inc.	200 Clover Reach Peachtree City, GA 30269	(404) 631-7290	+1 770 - 631 72 99	info@hartwaste.com	
International Baler Corp.	5400 P/O Grande Avenue Jacksonville, Florida 32254 FL 32254	(904) 358-3913	904-358-7013	service@internationalbaler.com	
Logeman Brother Company	3150 W. Durleigh St Milwaukee, WI 53210 USA	(414) 445-3005	414-445-1460		
Marathon Equipment Co.	P.O. Box 1798, Alabama 35592- USA	(205) 695-9105	205-695-7250		
Maren Engineering Corp.	P.O. Box 278 South Holland, IL 60473	(708) 333-6250	(708) 333-7437		
Magnetic Separators					

3182

 488


TRUE COPY

6 MW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, GUWAHATI

No	Description	Address	Telephone	Teletax	Email	Website
1.	Dings Co. Magnetic Group	4740 W. Electric Avenue Allentown, Pa. 18106	(414) 672-7830	(414) 672-6354		
2.	Eriez Magnetics	P.O. Box 10608 Erie, PA 16514 USA	(800) 345-4946	(814) 838-4960		
3.	Newell Industries Inc.	590 Steves San Antonio, TX 78204	(210) 227-9090			
4.	Stearns Magnetics, Inc.	600 South General Avenue Cincinnati, WI 53111	(414) 769-8000			
5.	Screens					
6.	Carrier Vibrating Equipment Inc.	P.O. Box 27070 Louisville, KY 40222 7070	(502) 969-3171	(502) 969-3172	evco.com/motors	
7.	Central Manufacturing Inc.	P.O. Box 1900 Peoria, IL 61656	(309) 387-6591			
8.	Rader Companies	P.O. Box 181048 Memphis, TN 38181	(901) 365-8855	(901) 795-4077		
9.	Simplidyn Engineering	212 South Oak Street Durand, MI 48429	(517) 288-3121			
10.	SWECO Inc.	P.O. Box 1509 Richmond, KY 41022	(606) 727-5180		sweco.com	

3183


TRUE COPY

6 MW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, OUWAHATI

No	Description	Address	Telephone	Telefax	Email	Website
	Triple/S Dynamics Inc.	P.O. Box 151027 Dallas, TX 75315-1027	(800) 527-2116			
	Shredder/Pulverizers					
	American Pulverizer Co.	5540 West Park Avenue St. Louis, MO 63110	(314) 781-6100	(314) 781-9209	americanpulverizer.com	
	Heil Engineered Systems	205 Bishops Way Brookfield, WI 53005	(414) 789-5533	262-789-5508		
	MAC Corporation/Satum Shredders	201 East Shady Grove Road Grand Prairie, TX 75050	(214) 799-7802	214.740.8733		
	Newell Industries Inc.	530 Steves San Antonio, TX 78204	(210) 227-9090			
	Palmor Pulverizers Co. Inc.	820 Bloomfield Avenue Clifton, NJ 07012	(201) 471-1450	(973) 471-7152	info@palmorpulverizers.com	
	William Patent Crusher Co.	2701 North Broadway St. Louis, MO 63102	(314) 621-3348	314-436-2639	info@williamscrushers.com	
	Granulators					

3184

[Handwritten signature]
4082

TRUE COPY

6 NEW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, GOWANEKI

No	Description	Address	Telephone	Telefax	Email	Website
	Cummins Engineering Division	P.O. Box 6065 Providence, RI 02940	(401) 728-1600			
	Herbold Granulators USA Inc.	12C John Rd Sutton, MA 01590	(508) 865-7355	001-508-865-99 75	info@neue-herbold.de	neue-herbold.de
	M.A. Industries	303 Dividend Drive Peachtree City, GA 30269	(404) 487-7761, 770-487-7761	770/631-4679	condances@main3.com	main3.com
	Neumo Corp. Inc.	Rhyolite Street N. Attleboro, MA 01535	(508) 278-3584	508 399-3050		
	Rapid Granulator Inc / C. J. Smith	P.O. Box 5987 Plymouth, IL 61125	(815) 266-4500	(815) 266-4500		
	Eddy-current separators					
	Cedarapids Inc.	916 1/2 th Street NE Cedar Rapids, IA 52402	(319) 363-3511	(319) 399-4871		
	Erez Magnetics	P.O. Box 10608 Erie, PA 16514	(800) 345-1946			
	Lindemann Recycling Equipment Inc.	42 West 38th Street New York, NY 10018	(212) 382-0630	704-587-9693		
	Steiner Elektromagnetauflösung MBH	136 William Street New York, NY 10038	(212) 967-1255			

3185 4063
46

TRUE COPY

6 MW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, GUWAHATI

Sr. No	Description	Address	Telephone	Telefax	Email	Website
Bottle-top Systems						
1	Automation Industrial Control	7128 Ambassador Road Baltimore, MD	(410) 944-8400			
2	Magnetic Separation Systems Inc.	624 Cassmere Park Drive Nashville, TN37211	(615) 781-2669			
3	National Recovery Technologies Inc.	566 Mainstream Drive Nashville, TN37228-1223	(615) 734-6400		nationalrecovery.com	
PLANT						
Steam Turbine and Generator		Drwg. No.: TWMCL-GA-ME-001		Equipment no. 24		
1	TD power Systems Pvt Ltd.	Plot No. 27, 28 and 29, KIADB Industrial Area, Dabaspel, Neelamangala Taluk, Bangalore - 562111	080 7734432 080 7734438 9845294945	080-7734439 7734440	vinay@tdps.co.in	
2	Demag Delaval Industrial Turbo machinery (Siemens)	Demag Delaval Industrial Turbo machinery, BARODA-390007, INDIA.	0265 5514300	0265-5514362	demagdelaval@industrial-turbines.com	
3	Triveni	Post Bag No.5836 and 5848 12A, Peenya Industrial Area, Bangalore-560058.	080 28394721 080-3722222	080 28395945 28374383	export@tbo.invenigroup.com	
4	Greenesol	23/11, Suryadev, 20 th main, West of Chord Road, Rajaji Nagar, First block, Bangalore-560010	080-23579154 080-23579155 080-23579156	080 3315349 23579152	homy@greenesolpower.com	
5	Boiler					

3186
4084
402

TRUE COPY

6 MW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, GUWAHATI

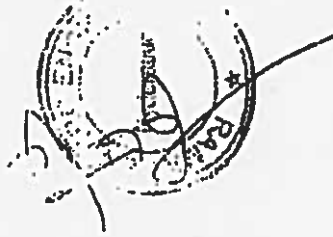
No	Description	Address	Telephone	Telefax	Email	Website
	Walchandnagar Industries	Walchand House, 15/1/B-2 G.A., Kulkarni Path Kothrud, Pune.	020-25452078 020-25436655	020-25451747	walboiler@vsnl.net	www.walchandnagar.com
	Thermal Systems (Hyderabad) Pvt. Ltd.	APURDOPA TOWNSHIP, IDA, JEEDAMETLA, HYDERABAD-500 055. INDIA.	040 23091801 040-23091806	040 23097433	info@thermoindia.com	www.thermoindia.com
	Thermax Limited	Energy Building, D-1 Block, Plot No.7/2 M.I.D.C Indl. Area, R.D.Aga Road, Chinchwad, Pune-411019	020-56126464	020-27479200	syvendse@thermoindia.com	www.thermax.com
	Geec John Thomson	Sarawali Corporate Centre, A-4, Sector -24, Noida - 201301	0120-2412480, 2411289, 2411290	0120-2412458, 2411372	gjohn@geec.com jthales@igsc.com	
	Cooling Tower				Equipment	
	Panapur Cooling Towers Limited	Flat No.11, III Floor, Habib Complex, No.3 Dabhabai Deshmukh Road, Rajiv Annamalaiapuram, Chennai - 600028	044 - 24951109	044 - 24953717		
	Mitr Engineers Limited	1338/7, 20th Main Road, 2nd Floor, Srijee Apts, Anna Nagar, Chennai - 600040	044 - 26181369, 477	044 - 26181369	cmengr@vsnl.com	
	Southern Cabling Towers	2,Chowlinghee Terrace, Off. Gokhale Road, Kolkata, West Bengal - 700 020	033-22231577	033-22231336	scable@vsnl.com	
	Water Treatment Plant and RO plant				Equipment	
	Ion Exchange (India) Ltd.,	No. 42 BN Reddy Road, T-Nagar, Chennai-600017	044 - 28153293 044-28151807	044 -28153361	ionex@ionexindia.com	
	Thermax India Ltd.,	Falting Akhtar Court, 8th Floor, No.453, Anna Salai, Teynampal, Chennai-600018	044 - 24355831	044 - 24355841 044-24350486	ks@thermax.com	

3137
4085
403

TRUE COPY

6 MW POWER PLANT AT INTEGRATED WASTE MANAGEMENT COMPLEX, GUWAHATI

Sr No	Description	Address	Telephone	Telefax	Email	Website
	Dashi Ion Exchange & Chemical Industries Ltd.	4th Main Road, Door NO. V-3, First Floor, Anna Nagar, Chennai - 600 040	044 - 26221401 044-26194881	044 - 26220591	Daso Chennai Export & Import Co.	
	Pollution Control Equipment			Dwg. No.: TWMCL-GA-ME-001	Equipment inc. 30	
	Thermax India Ltd.	Energy Building, D-1 Block, Plot No. 7/2 M.J.D. Ind. Area, R.D. Agra Road, Chinchwad, Pune-411019	020-56126464	020-2747200	ndharac@thermax.com IT: 10032016	
	Astom	Astom Projects India Ltd, Chandwala Estate, Maa Anand Mai Marg, Kalkaji, New Delhi-110019	011 51811100 011 51811602	011 51811200	astomindia.com	



3182

456
456

TRUE COPY

3189 ~~465~~

~~Annexure - I~~
Annexure - II

465

SOLID WASTE MANAGEMENT OF GUWAHATI CITY

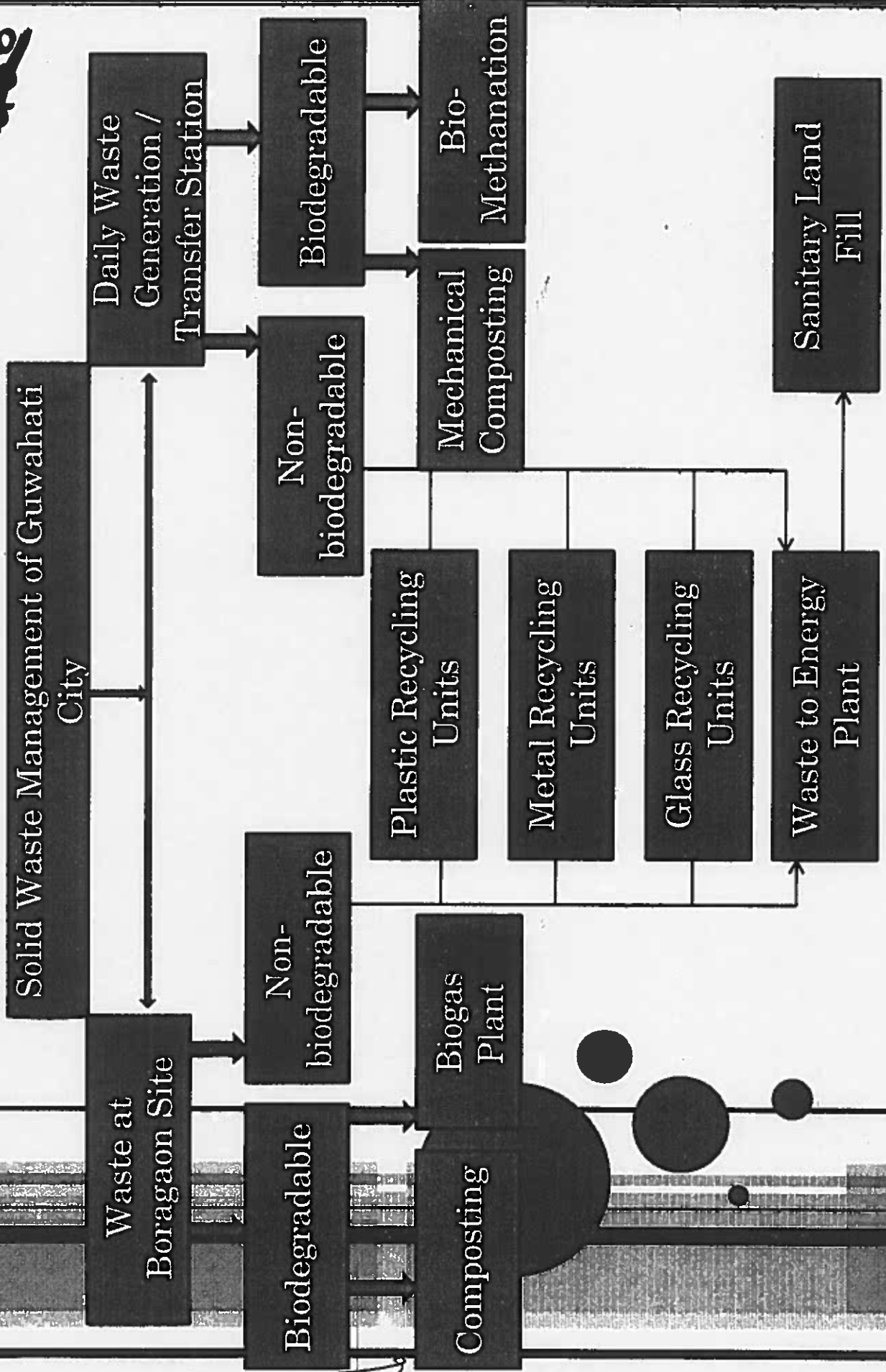
PRESENTED BY:
MR. S. VISWANATHAN, IAS
COMMISSIONER,
GUWAHATI MUNICIPAL CORPORATION, GUWAHATI

TRUE COPY

Solid Waste Management Flow Chart

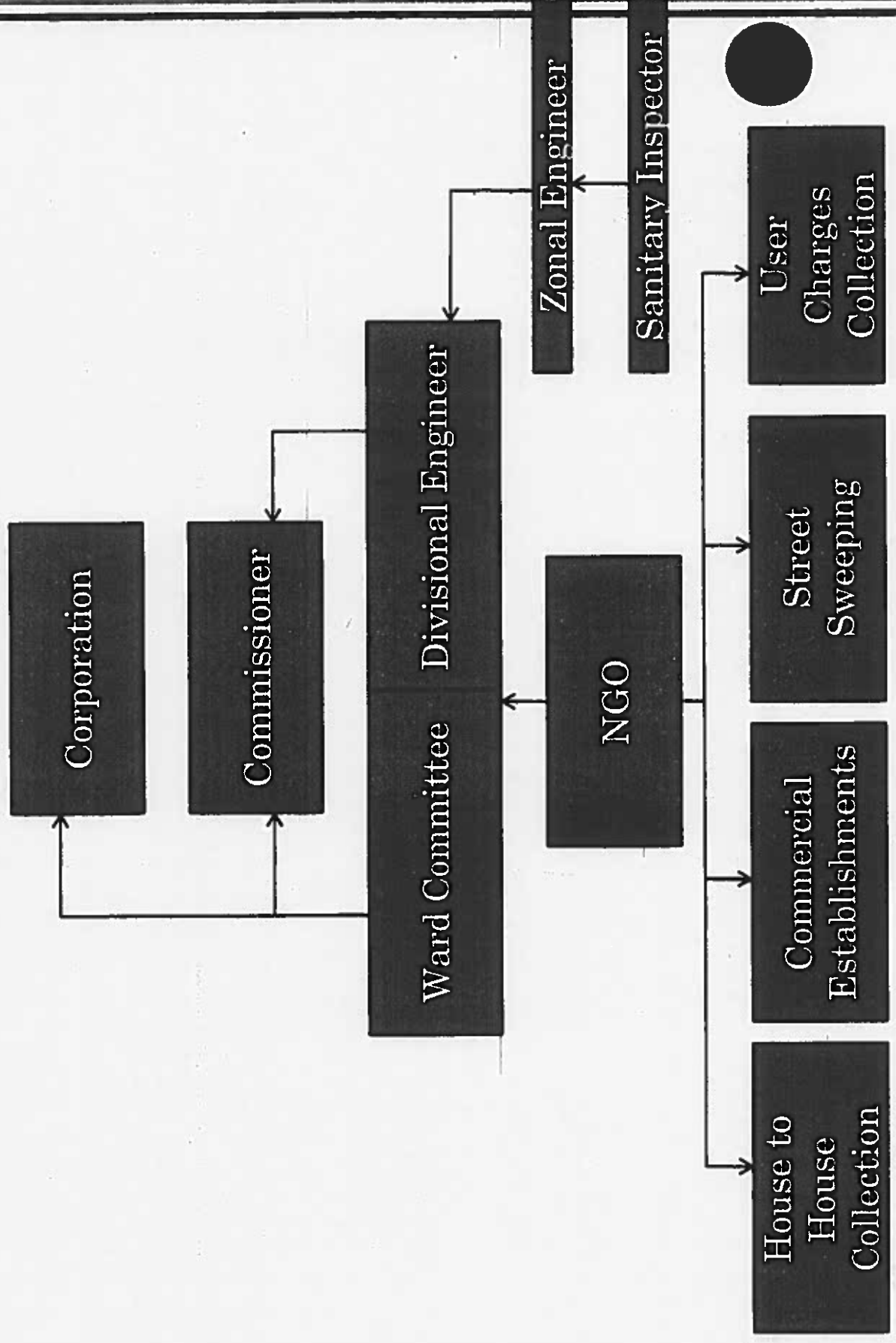
466

3190 ~~2068~~



TRUE COPY

PRIMARY COLLECTION ACTIVITIES



TRUE COPY

PRIMARY COLLECTION

- o One NGO for each ward
- o Supervision – Ward Committee + Divisional Engineers
- o User Charge – Rs 30 per household per month
Rate fixed by GMC for Commercial establishment
- o Contract Period of NGO – 3 years
- o Machineries – Auto tipper, Tricycles – GMC
Hand cart, Spade, Shovel, Forks, etc – NGO
- o Payment to NGO
 - o Rate per HH as per quoted rate for households in ward.
 - o 20% as incentive for user charge collection from HH and Commercial establishments

TRUE COPY

3/92

4/90

468

669

ORGANIZATIONAL SET-UP FOR MONITORING AND ENFORCEMENT

- o 31 Nos of NGOs will be engaged for each ward.
- o 6 Zonal Offices will be created for monitoring and enforcement.
- o Each Zonal Office will be headed by an ACS cadre officer.
- o Each Zonal Office will comprise of Divisional Engineer office and Deputy Commissioner office.
- o Deputy Commissioner will be responsible for collection of revenue in their zone.
- o Divisional Engineer will be responsible for SWM construction and maintenance of infrastructure, etc.

3193 409T

TRUE COPY

690

MONITORING AND ENFORCEMENT

- o There is one existing Bye-Laws for regulating and controlling for collection, removal, etc of SWM.
- o An Ordinance proposed to give more teeth to the Enforcement and Monitoring team.
- o The Enforcement Machinery will comprise of Public Health Engineers, Sanitary Inspectors, etc.
- o Minimum eligibility for the position of Sanitary Inspector would be a Completion of Sanitary Inspector's Diploma Course from a reputed institute.

3194 4072

TRUE COPY

497

SECONDARY COLLECTION AND TRANSPORTATION

- o GMC will take up the task on its own.
- o Vehicles available with GMC and Ramky will be used.

Existing Vehicles Status

SI No	Vehicles	GMC	Ramky
1	Compactors	11	2
2	Robot	4	0
3	Tipper	18	4
4	Dumper Placer Vehicle	0	17
5	Autovan	0	29

Proposed Vehicles Status

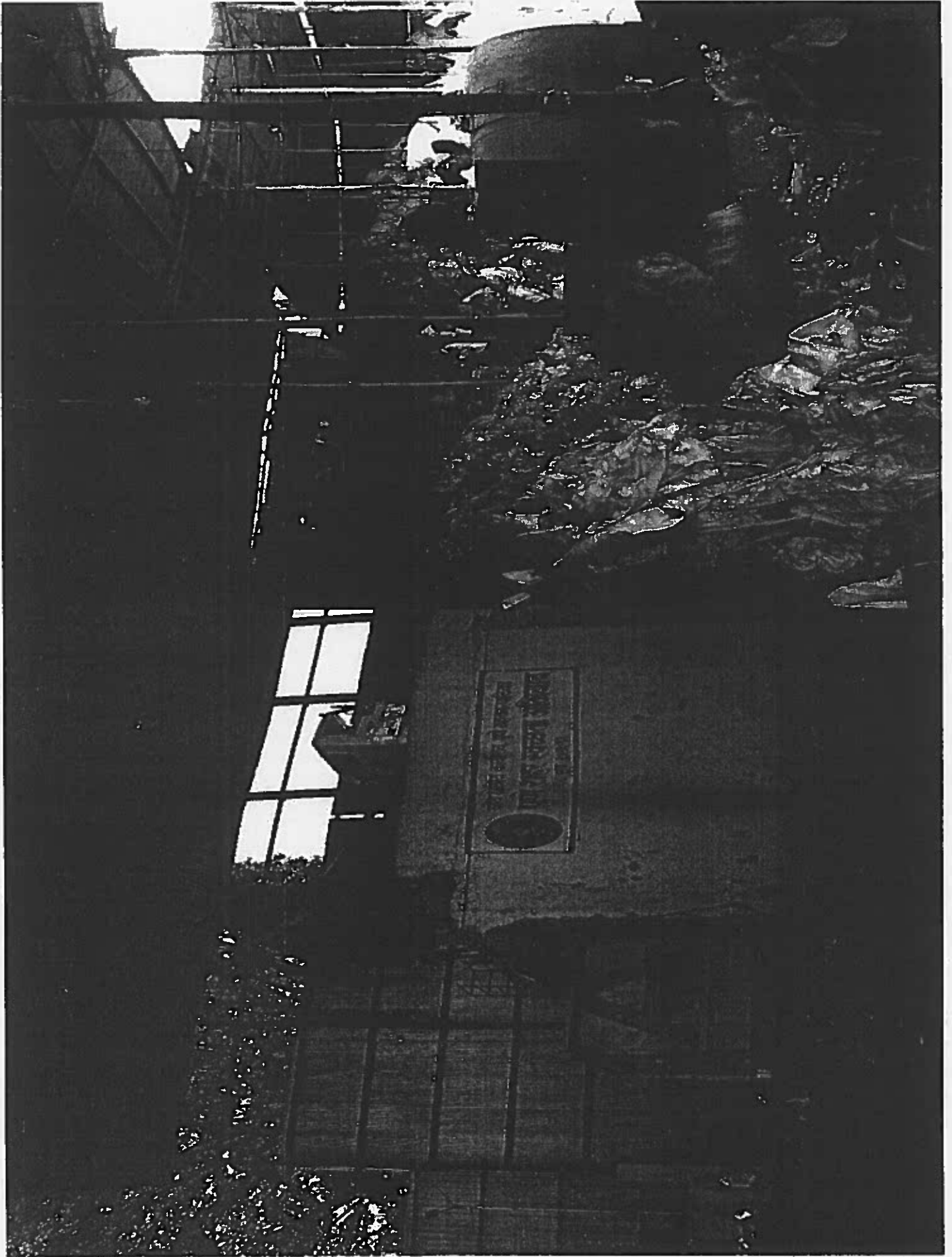
SI No	Vehicles Requirement	Existing	Net Requirement	Unit Rate (In Lakhs)	Amount (in Lakhs)
1	Autovan	29	62	5.00	310
3	Tipper	22	32	10.90	348
Total					658.80

3195 4075

TRUE COPY

264

3196 4094



TRUL COPY

TRANSFER STATIONS WITH PLASTIC

473

RECYCLING UNIT

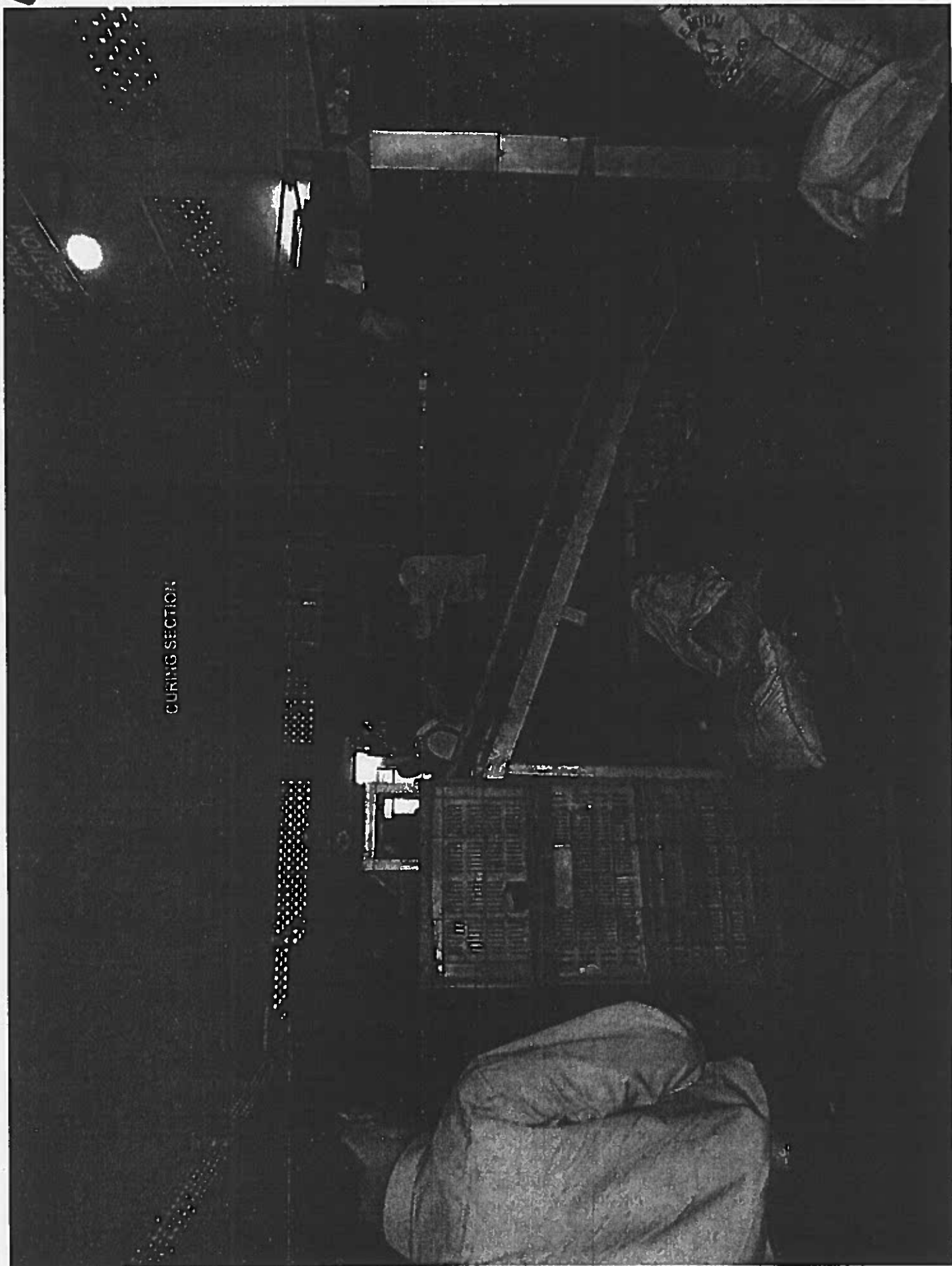
- o Transfer stations are suitable intermediate locations inside city for transferring garbage from small vehicles to large vehicles.
- o It helps in saving fuel as well as time.
- o Two Transfer Stations at suitable locations with Plastic Recycling Units at Hengrabari and Sarabbhatti.
- o Project Cost – Rs 1.5 Crores each including Civil, Mechanical, equipments & vehicles requirements.

31974095

TRUE COPY

427

20963198



CURING SECTION

3
TRUE COPY

495

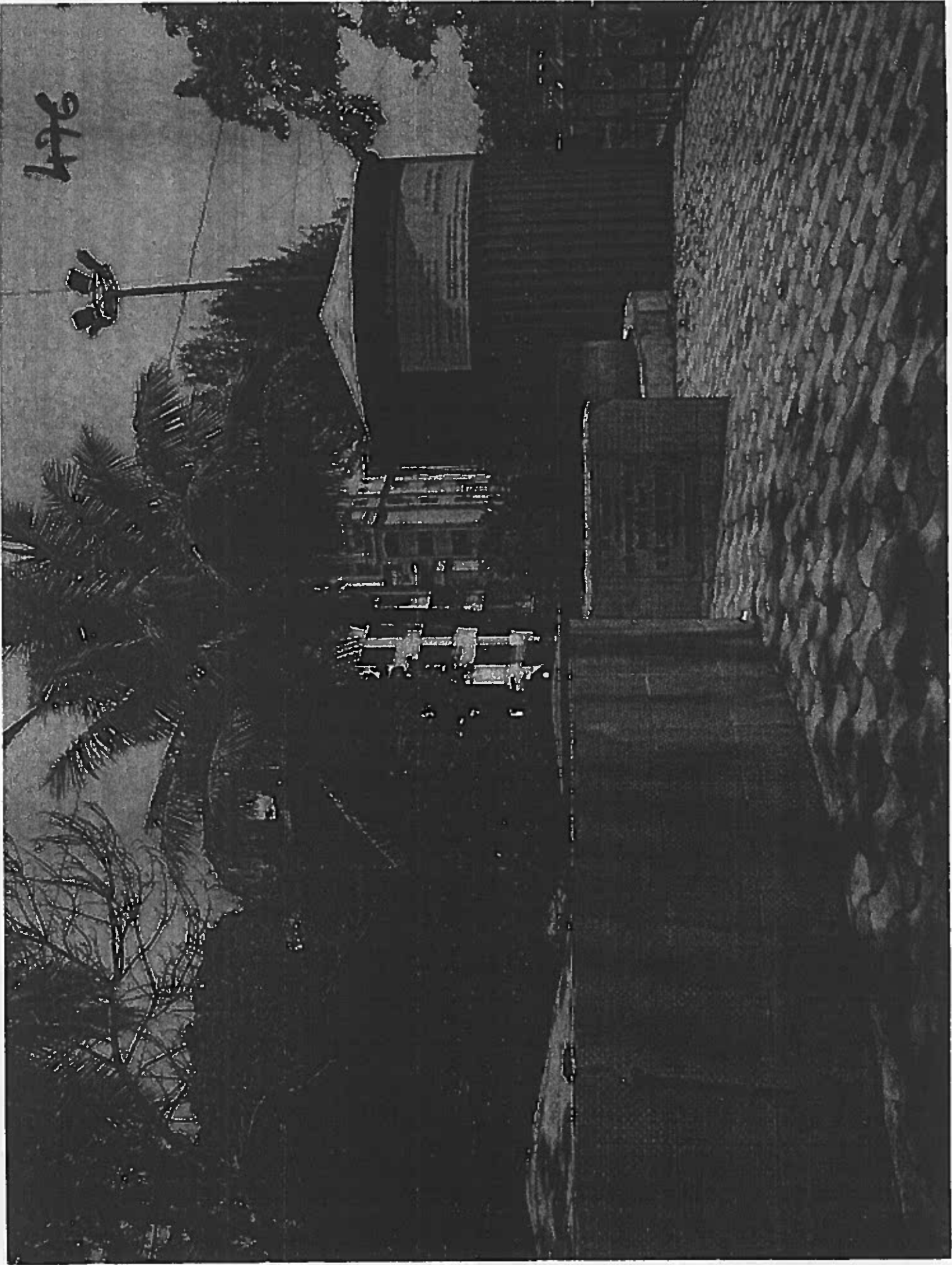
MECHANICAL COMPOSTING

- o Propose to establish six de-centralized unit of Mechanical composting, one in each Engineering Division.
- o Capacity – 2 TPD
- o Waste Used - 100% Biodegradable Waste
- o Land reqd. – 5000 sq ft
- o Project Cost – Rs.80.00 Lakhs
- o O&M Cost – Rs 1.00 Lakhs per month

40973199

11/11/11

4098 3250



496

TRUE COPY

479

BIO-METHANATION PLANT

- Propose to establish six de-centralized unit of Bio-Methanation plant, one in each Engineering Division.
- Capacity – 5 TPD
- Waste Used - 100% Biodegradable Waste
- Land reqd. – 500 - 600 sq mt
- Project Cost – Rs 1.5 Crores
- Energy Generation – 300 units per day
- O&M Cost – Rs 1.00 Lakhs per month

TRUE COPY

3201

4099

498

DUMPSITE MANAGEMENT AT BORAGAON

- o Several Proposals have been received for mitigation of dumpsite from across the country like *Innovative Eco Care Ahmedabad*, *Sai Renewable Energy Enterprise Guwahati*, *Stiefel McClelland WTE Pvt Ltd Navi Mumbai*, *Solar Sewage Basic Infrastructure Pvt. Ltd Ahmedabad*.
- o The proposal from *Sai Renewable Energy Enterprise Guwahati* for Waste to Energy plant is to be presented by the consultants along with the officials of ASEB for the re-commissioning of the Chandrapur Thermal Power plant with fuel derived from MSW.

3201-A

TRUE COPY

COST ESTIMATES

479

3202 ST

Sl No	Proposed Plant / Infrastructure	Total Number	Per Unit Cost (in Lakhs)	Cost Involved (in Lakhs)
1	Transfer Stations	2	150	300
2	Recycling Plants for plastics, metal, glasses, etc			100
3	Mechanical Composting	6	80	480
4	Bio-Methanation	6	150	900
5	Proposed Vehicle purchase for C&T			658.8
6	O&M per year for Secondary Collection & Transportation			1000
	Total for Secondary Transportation and Collection			3438.8
7	Waste to Energy Plant @ 22 crores per MW (5 MW)	1	11000	11000
8	Development of roads, drains etc at Boragaon			600
9	Digging & transportation of waste at Boragaon			100
10	Sanitary Landfill Construction	3	1500	4500
11	Leachate Treatment Plant	1	100	100
12	O&M per year for existing 200 TPD Compost Plant			50
	Total for Dump site Management at Boragaon			16350
	Grand Total			19788.8

TRUE COPY