

(SERVICE PLAN)

PROPOSED COMMERCIAL CUM STUDIO APARTMENT

PLOT NO. TC/G-6, VIBHUTI KHAND, GOMTI NAGAR, LUCKNOW

DRAINAGE MAIN HOLE SEWER MAIN HOLE TUBE WELL SEWERAGE LINE TUBEWELL LINE MUNICIPAL LINE GARDEN HYDRANT LINE SUMP DISCHARGE PIPE

> STORM WATER LINE STP DISCHARGE LINE

REVISED SUBMISSION DRAWING

DRG. NO.

SERVICE FLOOR PLAN

ARCHITECT SIGNATURE

13/15



ARCHITECTS & INTERIOR DESIGNERS 5/171, VIRAM KHAND, GOMTI NAGAS

3 Are recycled materials used in roads and structures? State the extent of savings achieved?

Waste from construction like excavated earth, empty cement bags, paper, cartoon and iron rods etc will be reused/ recycled as far as possible. Empty plastic cement bags and other plastic waste will be used in road construction. The waste generated as brick bats, plaster cement, reinforcement steel, concrete falls, ceramic tiles, etc will be used as a construction material.

.4 Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.

The philosophy of solid waste management will be to encourage the four R's of waste i.e. waste reduction, reuse, recycling, and recovery (materials & energy). Regular public awareness meetings will be conducted to involve the residents in the proper solid waste management plan, options and techniques.

On the basis of the solid waste being collected in different cities, the per capita rate of solid waste generation has been adopted as 0.5 kg per day per person for residents, 0.25 kg per day per person for staff and 0.15 kg per day per person for visitors, Horticulture waste @ 0.0037 kg/m²/day, and e-waste @ 0.15kg/capita/year. Thus the anticipated municipal solid waste worked out as below:

Table 14: Solid waste generation

- T	Table 14: Solid wa Particulars	Population	Waste generated in kg/day
S.No.		1232	616
1.	Residential (@0.5kg/day)	1204	1
		250	62.5
2.	staff (@0.25 kg/day)		75
3.	Visitors (@0.15kg/day) 500		4
			Approx. 754 kg/day
Total Solid waste generated			9.3 Kg/Day
Horticulture Waste (@ .0037kg/m²/day)			
E-Waste (0.15 kg/C/year)			0.6 Kg/Day
			4.5 kg/day
STP sludge (dry weight)			

- Segregation & Collection of waste A door to door and floor to floor collection system through service lifts shall be provided for collection of solid waste generated.
- Adequate number of colored bins (green and Blue separate for Bio-degradable and Non Biodegradable) are proposed to be provided
- Recyclable waste will be sold to authorized agencies.
- Hazardous waste (Spent Oil) & e-waste will be stored at separate place and handover to authorized dealers of CPCB.

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 Litter bin will also be provided in open areas like parks & play grounds etc.

Transportation, Treatment & Disposal

Generated Solid waste shall be segregated & collected on common solid waste collection center in site, and handed over to authorized recyclers for treatment and disposal.

Following steps have been proposed for collection, treatment and disposal of MSW:

- Step 1: Segregation of MSW at source and collection from the premises
- Step 2: Transportation of MSW
- Step 3; Segregation of MSW for processing
- Step 4: Stredding of the compostable waste to desired particle size
- Step 5: Treatment of biodegradable waste through composting.
- Step 6: Disposal of non biodegradable waste through authorized dealers.

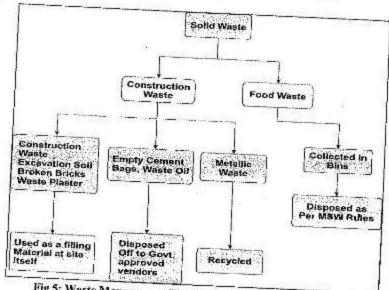


Fig 5: Waste Management Flow Diagram (Construction Phase)



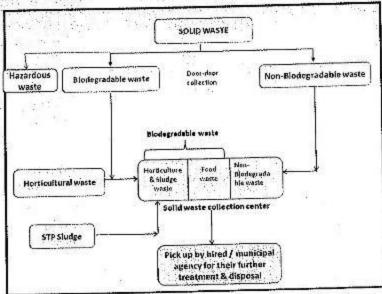


Fig 6: Waste Management Flow Diagram (Operational Phase)

Hazardous Waste

The Project is a Building Construction Project in which no storage of hazardous chemicals (as per MSIHC rules) will be done, except HSD (low sulphur variety) required to run standby DG sets. Also, the quantity to be stored will be below the threshold limit specified in the MSIHC rules. During construction paints, solvents, thinner, oil and lubricants will be stored for use which is hazardous to health.

E-Waste

E-Waste (Management & Handling Rule, 2016) Electronic waste, popularly known as 'c-waste' can be defined as waste electrical and electronic equipments whole or in part or reject (such as CDs, floppies, keyboards, monitors, power plug, bulbs, batteries, etc.) which have become obsolete due to:

- Advancement in technology
- Changes in fashion, style and status
- Nearing the end of their useful life.

Responsibility of Consumer or Bulk Consumer

According to F-Waste (Management & Handling Rule, 2016) responsibility of Consumer or Bulk Consumer is given below: