

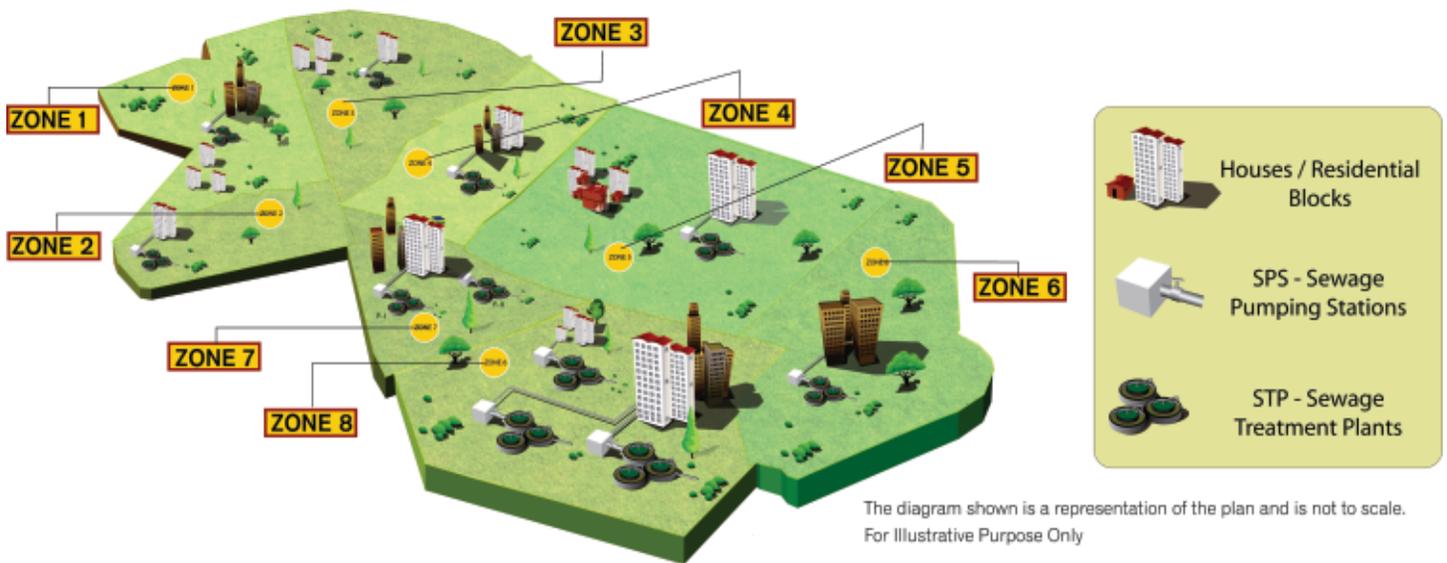


PROJECT AT A GLANCE

Mira Bhayandar Municipal Corporation (MBMC), has awarded the contract for Design-Build, Operate and Maintenance of the Underground Sewerage Scheme for the areas under its jurisdiction to SPML Infra Ltd. The project is designed on completely decentralised system having 10 zones across Mira Bahayandar. The sewage system implies closure of existing septic tanks and drainage through storm water drains improving overall hygiene and living standards.

The best global safety measures are being followed in project execution. The project is proposed to be implemented under Jawaharlal Nehru National Urban Renewal Mission (JnNURM) funds. Mira Bhayandar falls under the Mumbai urban Agglomeration, which qualifies for central assistance of 35% & State Govt. assistance 15% of the total approved project cost. The balance 50% funding plus non funded components under JnNURM will be arranged through loan from MMRDA / Financial Institutions apart from MBMC's own funds.

Description	Details in Brief					
Name of the Project	Underground Sewerage Scheme for Mira Bhayandar					
Client	Mira Bhayandar Municipal Corporation					
Contract Value - Design - Build Portion	Rs. 492 Crores					
Operation Service	Rs. 33 Crores					
Total	Rs. 525 Crores					
Scope of Work	Design, Build and Operate (for 5 Years) the Underground Sewerage System for the entire Mira Bhayandar Municipal Corporation.					
Detailed Description of the Work	Planning, designing, Implementation of the UGD system and maintaining for a period of 5 Years involving the following components.					
Part :1 Sewerage collection and conveyance system	Supply and installation of 89 Kms of NP-3 & NP-4 RCC, DI and HDPE pipes having diameters ranging from 150 mm to 1200 mm and RCC manholes having depths ranging from 1.50 to 9.00 meters along with the allied.					
Part 2: STPs & Pumping Stations	1. Construction of 10 nos. of packaged sewage treatment plants of capacity ranging from 7 MLD to 17 MLD, total capacity of 115 MLD. 2. Construction of 10 nos. of sewage pumping stations in each respective zones.					
	Zone	STP(MLD)	SPS (Cum)	Zone 6A	13	458
	Zone 1	8	438	Zone 6B	7	625
	Zone 2	8	458	Zone 6C	11	521
	Zone 3 A	13	688	Zone 7	12	479
	Zone 4	12	521	Zone 8	14	958
	Zone 5	17	1000	Total Capacities	115 MLD	6146 CUM
Part 3: Out falls	Supply and installation of outfalls of RCC, pipe diameter ranging from 400 m to 600 mm for a total length about 5.11 Km for disposal and reuse of treated effluent water.					
Part 4: Misc. Items	Shifting of utilities works, implementation of centralized SCADA along with equipment like computers, scanners, plotters etc, implementation of environment management, construction of security guard rooms, meter rooms, compound walls, etc. around STPs.					



SOCIAL BENEFITS

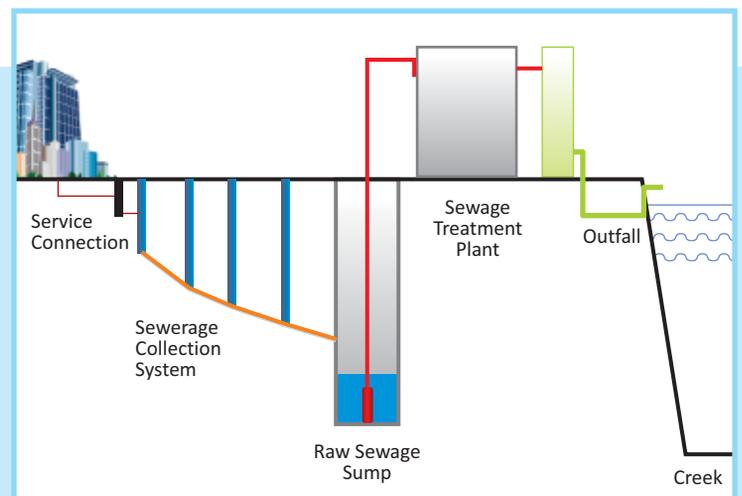
- Environmental pollution will be under control
- Disposal of the waste water will reduce stagnation of water in storm water drains.
- Septic tank system will be eliminated which will in turn reduce soil & sub soil water pollution
- Breeding of mosquitos & other insects will reduce substantially
- Epidemics will reduce effectively

SPECIAL FEATURES

- This is the 1st decentralised sewerage scheme in India
- All the sewage treatment plants are in residential areas with MBBR technology.
- MBBR technology requires less power consumption and less space than conventional sewage treatment plants.
- All the STPs will be SCADA based operated from a master control room.
- Executed with specialised MS shoring with higher safety precautions.

GENERAL PROCESS

- Raw sewage collection and pumping
- Pre-treatment
- Aerobic biological treatment
- Clarification
- Disinfection
- Sludge dewatering



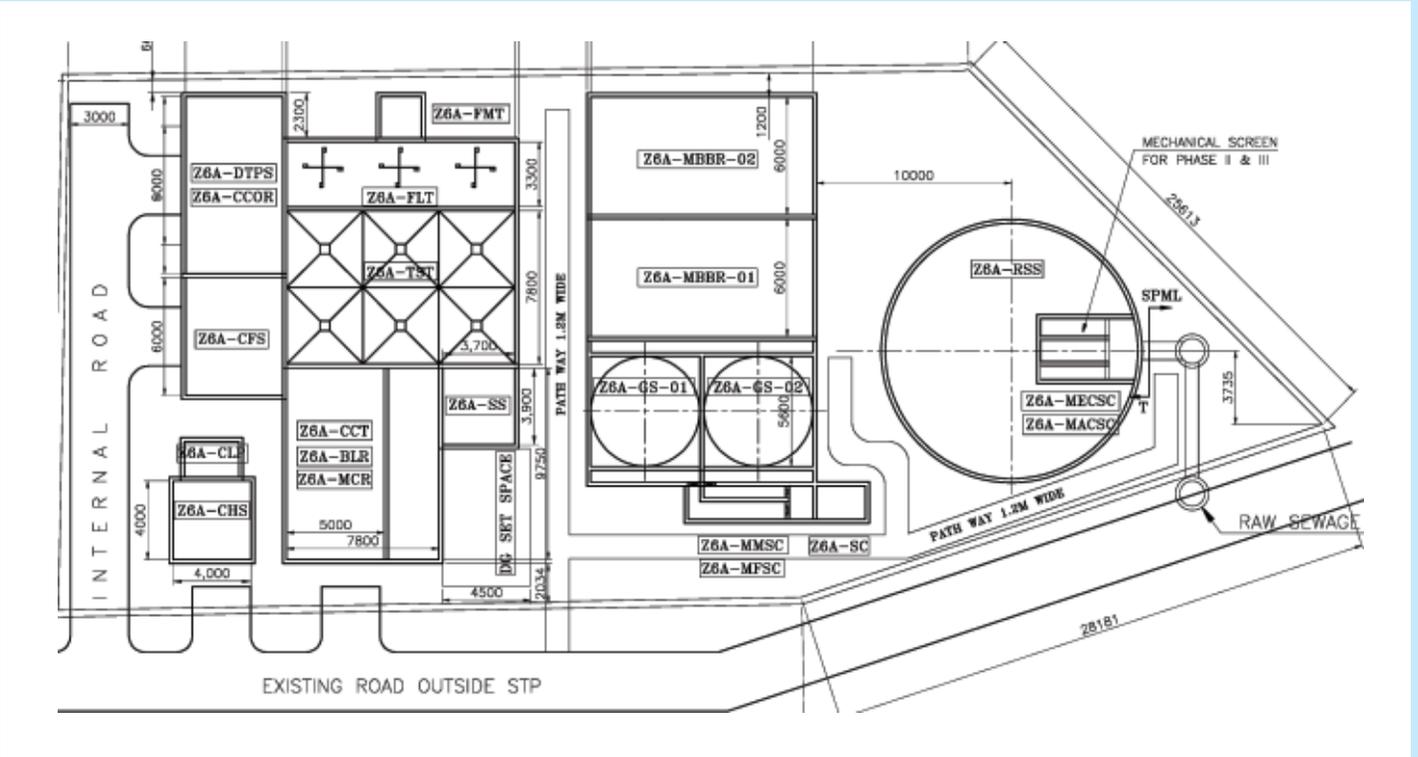
MBBR TECHNOLOGY

It is non-clogging moving bed bio reactor. In which movement within the reactor is generated by aeration in the aerobic reactor. In the process biomass is allowed to grow on small carrier elements that move along with the water in the reactor. The fab media made of special grade plastic having density close to that of water.

TECHNICAL BENEFITS

- Requires no back washing
- Has low head loss
- Has high specific bio film surface area
- It makes the plant compact
- Sludge recycle is not required
- Shock load acceptance is better than for plants with suspended growth process

Parameters	pH	TSS	BOD5 at 200C	COD	Oil & Grease	Fecal Coliform
Unit		Mg/l	Mg/l	Mg/l	Mg/l	MPN/100 ml
Influent	6 to 8	300-500	200-250	400-450	10-20	2x10 ⁷
Effluent	6 to 8	< 20.00	< 10.00	< 100.00	< 10.00	< 500.00



PROJECT PROGRESS AT A GLANCE



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