

CONCEPTUAL PLAN

1. INTRODUCTION

M/s Ashirwad Engicon Pvt. Ltd. is proposed Residential Cum Commercial Building “Ashirwad Sunderlal City” on the total land area measuring **47162.19 Sqm.** at Bhelwara, Dist. - Patna, State-Bihar. The proposed built up area is **198428.03 Sqm.**

The Project built up area is greater than 1,50,000 sqm. therefore, designated under Category “B” and falls under Item 8 (b) (Township & Area development Project) of the Environmental Impact Assessment (EIA) Notification of September 14, 2006 and its subsequent amendments. The Summary of Land details is attached as **Annexure-II.**

2. SITE SURROUNDING & CONNECTIVITY

The proposed project is well connected to different villages and towns. It is surrounded by Sadallichak, Chakpul and Ektapuram habitation & the project is also close proximity to the Patna town within 5 km of the area of proposed project. Site surroundings and Connectivity details of the proposed project are given in **Table-1.**

Table-1: Site Surroundings and Connectivity Details

Connectivity & Site Surroundings Ashirwad Sunderlal City			
S. No.	Description		Distance and Direction
1.	Nearest Junction Nearest Railway Station	Parsa bazar Railway Station Patna Junction Railway Station Rajendra-Nagar Terminal Railway Station	Approx.2.20 Km towards WSW. Approx.5.10 Km towards North Approx. 5.4 Km towards NNE
2.	Nearest Airport	Jayprakash Narayan Airport Patna	Approx. 6.5 km towards NW.
3.	Nearest Village	Sadallichak Chakpul Ektapuram Mittanchak Dariapur	Approx.0.5 Km towards WSW. Approx. 038 Km towards North. Approx. 0.55 Km towards East. Approx. 0.52 Km towards South. Approx. 0.72 Km towards West
4.	Nearest Highway/Roads	Ramkrishna-Nagar Main Rd NH 22 NH 922	Adjacent to Site Approx. 1.88 Km towards West Approx. 3.5 Km towards NNW

Proposed Group Housing “Ashirwad Sundarlal City” at Bhelwara, Patna by Ashirwad Engicon Pvt. Ltd.

		SH 1	Approx. 3.86 Km towards East.
5.	Nearest School & College	Shri Ram Centennial school Shring Sheffield school DAV Public School Bihar Institute of Technology & Management Himalaya Teacher Training college	Approx. 0.68 Km towards East. Approx. 0.64 Km towards SW. Approx. 0.50 Km towards North. Approx. 1.84 Km towards West. Approx. 2.32 Km towards NNE.
6.	Nearest Hospital	Ayush Hospital Harsh hospital Ayushveda Emergency hospital Adavance Patna Central Hospita	Approx. 2.9 Km towards NNW. Approx. 2 Km towards NNE. Approx. 3.3 Km towards NNW. Approx. 3 Km towards NNE.
7.	Places of worship	Narayan Shiv shakti temple Shiv Mandir Hanuman Mandir Shiv shakti Sai Temple	Approx. 2.39 Km towards NE. Approx. 2 Km towards North. Approx. 2.8 Km towards North. Approx. 3.55 Km towards NE.
8.	Water Bodies	Ganga River Punpun River	Approx. 7.6 Km towards NNE Approx. 7.30 Km towards SE
9.	Nearest Town	Patna	Approx. 4.10 Km towards North
10.	Sanctuary	Rajbanshi Nagar Bird Sanctuary	Approx. 5.60 Km towards NNW
11.	Reserve Forest/ Zoo	Sanjay Gandhi Biological Park Zoo.	Approx. 6.25 Km towards NW.

Source: Google Earth & Site visit

The Site Location map is shown in **Figure-1**. A Google Map showing the site corner coordinates of the proposed project is shown in **Figure-2**. Topographical map (*Survey of India Topo sheet no No.-G45N2, G45N3*) of 10 km radius is shown in **Figure 3**.

Proposed Group Housing “Ashirwad Sundarlal City” at Bhelwara, Patna by Ashirwad Engicon Pvt. Ltd.

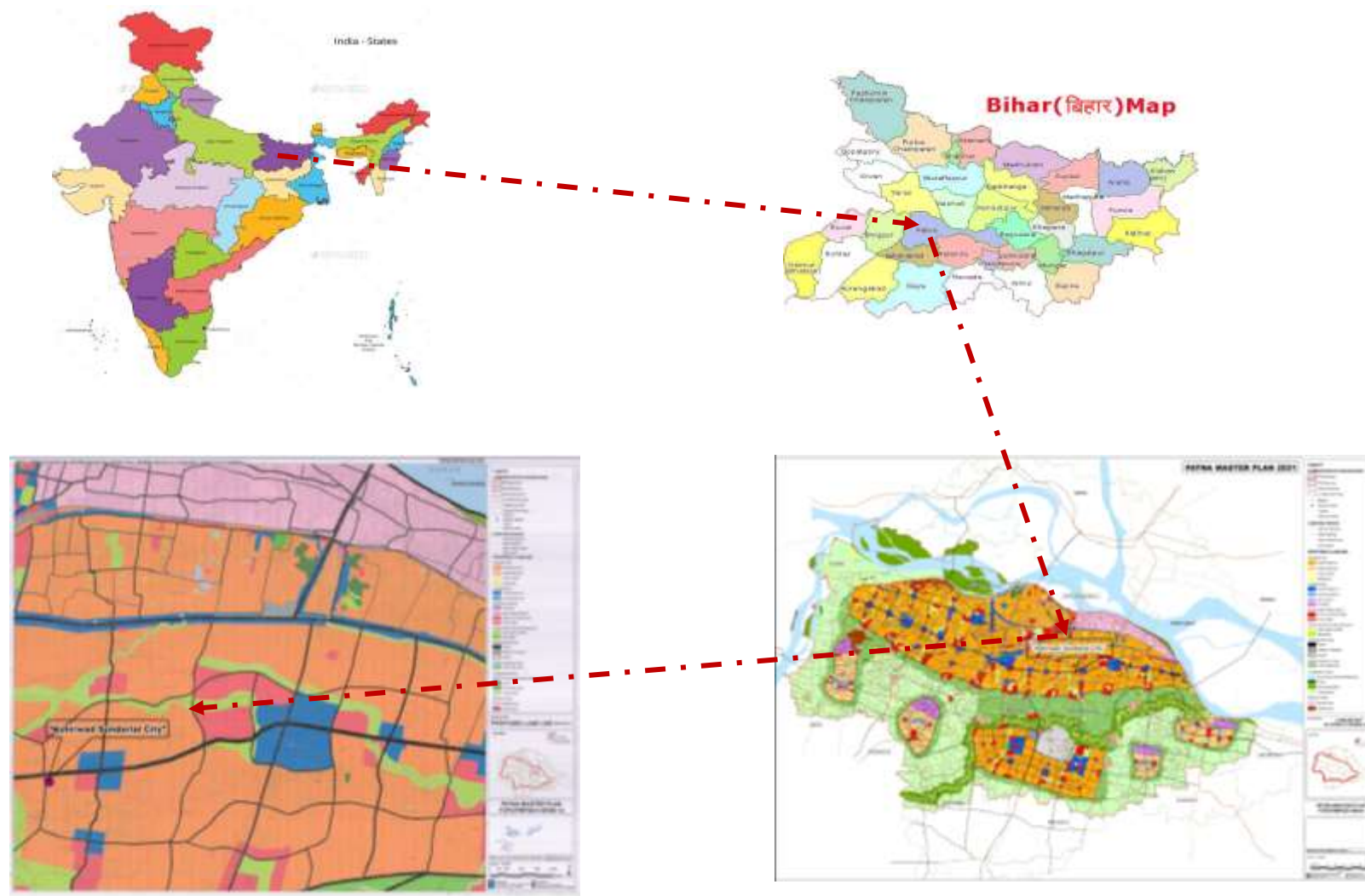
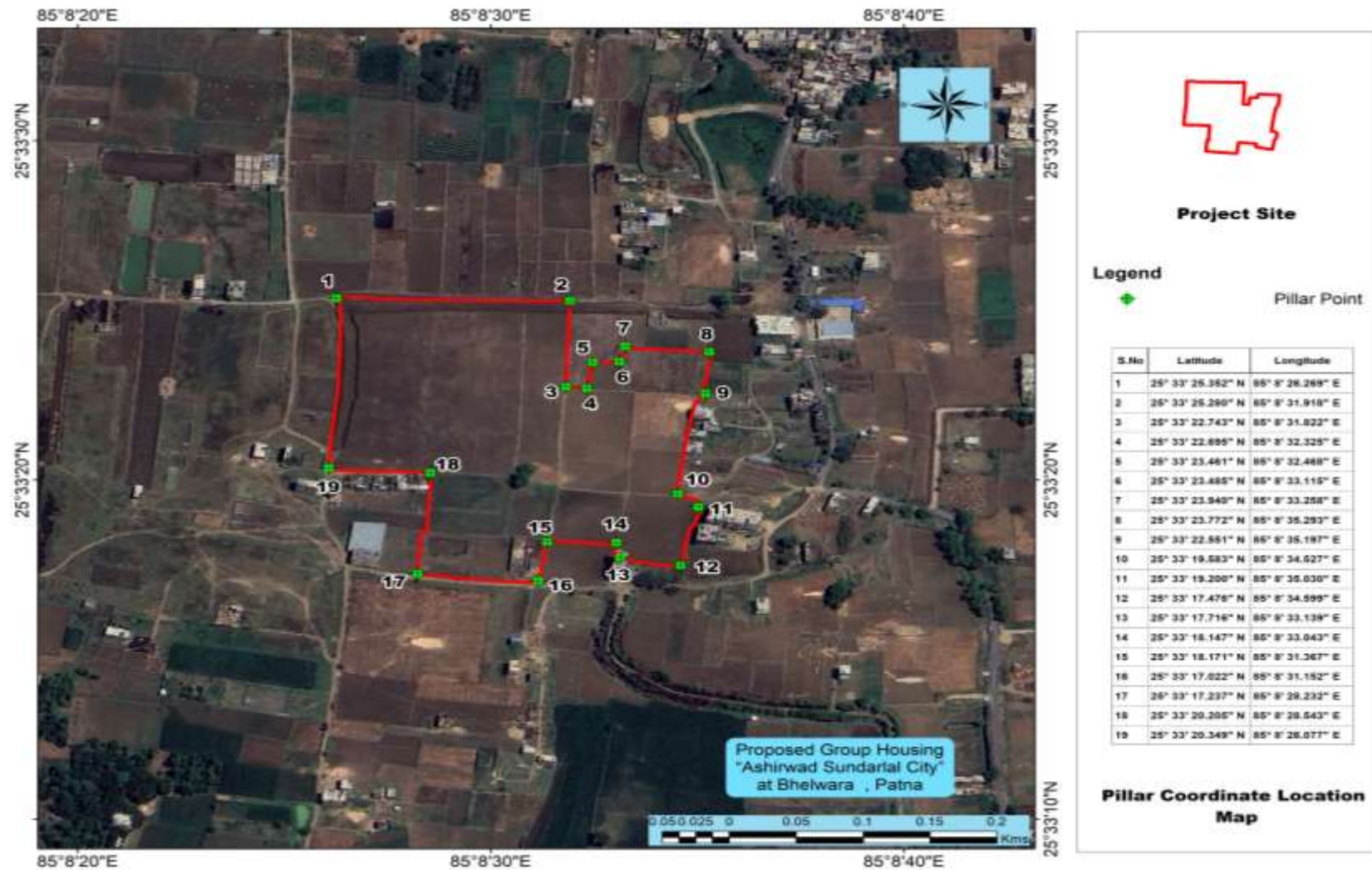


Figure-1: Site Location Map

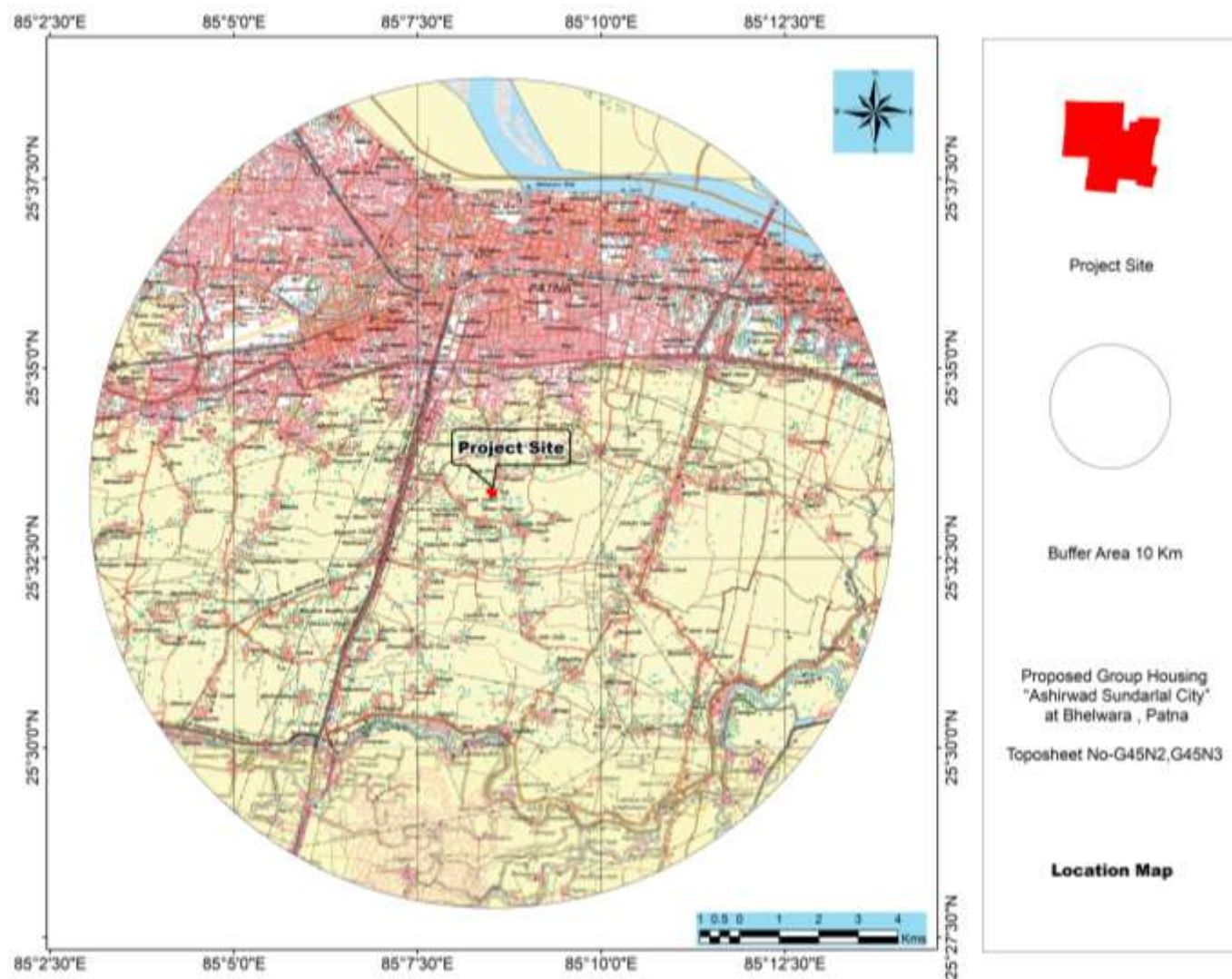
Proposed Group Housing “Ashirwad Sundarlal City” at Bhelwara, Patna by Ashirwad Engicon Pvt. Ltd.



Source: Google Map

Figure-2: Pillar Coordinate Map

Proposed Group Housing “Ashirwad Sundarlal City” at Bhelwara, Patna by Ashirwad Engicon Pvt. Ltd.



Source: Survey of India

Figure 3: Topographical Map of 10 km radius

3. PROJECT LOCATION AND DESCRIPTION

The proposed Residential Cum Commercial Building “Ashirwad Sunderlal City” is located at Mauza- Bhelwara, Thana-Gopalpur, Dist. – Patna, Bihar. The coordinates of the project boundary are mentioned below in the **Table-2**.

Table-2: Coordinates of the Project Boundary

Sl. No.	Latitude	Longitude
1.	25°33'25.352"N	85°8'26.269"E
2.	25°33'25.280"N	85°8'31.918"E
3.	25°33'22.743"N	85°8'31.822"E
4.	25°33'22.695"N	85°8'32.325"E
5.	25°33'23.461"N	85°8'32.468"E
6.	25°33'23.485"N	85°8'33.115"E
7.	25°33'23.940"N	85°8'33.258"E
8.	25°33'23.772"N	85°8'35.293"E
9.	25°33'22.551"N	85°8'35.197"E
10.	25°33'19.583"N	85°8'34.527"E
11.	25°33'19.200"N	85°8'35.030"E
12.	25°33'17.476"N	85°8'34.599"E
13.	25°33'17.716"N	85°8'33.139"E
14.	25°33'18.147"N	85°8'33.043"E
15.	25°33'18.171"N	85°8'31.367"E
16.	25°33'17.022"N	85°8'31.152"E
17.	25°33'17.237"N	85°8'28.232"E
18.	25°33'20.205"N	85°8'28.543"E
19.	25°33'20.349"N	85°8'26.077"E

The detailed area statement is given below in **Table-3**.

Table-3: Detailed Area Statement

S. No.	Details	Area	
1	Total Plot area	47162.19	sqm.
2	Permissible FAR @2.5	117905.48	sqm.
3	Total FAR Achieved @ 2.5	117905.32	sqm.
4	Residential Building Built-up area (FAR)	108343.26	sqm.
5	Commercial Building Built-up area (FAR)	8244.32	sqm
6	Club & Temple Built-up area (FAR)	1317.74	sqm
7	LIG & EWS Building Built-up area (FAR)	17572.53	sqm.
8	Built-up Area (Residential + Commercial + Club & Temple)	135477.85	sqm
9	Total Parking area required	28171.56	sqm
10	Total Parking area Provided	62950.18	sqm
11	Total Built-up Area	198428.03	sqm
12	Open Parking Area	487.5	sqm
13	Permissible Ground Coverage @40%	18864.88	sqm
14	Proposed Ground Coverage @23.39%	11032.95	sqm
15	Greenbelt area Provided @27.70 %	13066	sqm
16	Road Area	12682.71	sqm
17	Open Area	10380.53	sqm

4. DETAIL OF BUILDING BLOCK

The Project envisages construction of five blocks. Details of Building Blocks are given in

Table 4.

Table 4: Details of Building Blocks

Block	3 BHK	2 BHK	1 BHK	Total Nos. of units	Population	No. of Floors	Height of the Building
Tower 1	51	..	..	51	306	B+S+14	Approx. 23.80 meter
Tower 2	51	..	..	51	306	B+S+14	Approx. 44.95 meter
Tower 3	262	..	..	262	1572	B+S+11	Approx. 36.10 meter
Tower 4	156	..	..	156	936	B+S+13	Approx 42.10 meter
Tower 5	156	..	..	156	936	B+S+13	Approx.42.10 mete
Tower 6	156	..	..	156	936	B+S+14	Approx 42.10 meter
Tower 7	130	..	..	130	780	B+S+11	Approx 36.10

Proposed Group Housing “Ashirwad Sundarlal City” at Bhelwara, Patna by Ashirwad Engicon Pvt. Ltd.

							meter
Tower 8 (LIG/ EWS)		136	196	332	1464	B+S+14	Approx. 44.95 meter
Commercial	240 Shop & 2 Anchor Shop				740	LB+UB+G+4	Approx. 23.80 meter
Total				1294	7976		

5. POPULATION DETAIL

Total population of the proposed project will be **9523** which include the population of dwelling units and visitors. Breakup of the population is given in **Table-5**.

Table-5: Calculation of Population

Block	Total Dwelling Units	Unit Population	Population
Residential Block	1294	6/5/4	7236
Visitors	10% of Residential Population		723
Commercial- Shop staff	240 Shop & 2 Anchor Shop	3 & 10	740
Commercial Block-Visitors	10 sqm / Person @ 8244 BUA		824
Total			9523

6. PARKING DETAIL

The details of parking required and provided is mentioned in following **Table 6**.

Table 6: Parking Details

Parking area Required @ 25% of FAR area of Residential (Excluding 15% of Service Area)	25054.88 Sqm
Parking area Required @ 35% of FAR area of Commercial (Excluding 15% of Service Area)	2452.68 Sqm
LIG & EWS Required Parking Area (332 X 2 sqm)	664 Sqm
Total Parking area required	28171.56 Sqm.
Parking Provided in Residential Building (Stilt floor + Basement)	56397.99 Sqm
Parking Provided in Commercial Building (Basement)	4795.71Sqm.
Open Parking Area	487.5 sqm
LIG & EWS Parking provided at Stilt Level	1756.48 sqm

Total Parking Area Provided	63437.68
Parking Provided in Residential Building (Stilt floor + Basement)	1879 ECS
Parking Provided in Commercial Building (Basement)	160 ECS.
LIG & EWS Parking provided at Stilt Level (2 Sqm / Bike)	878 No.
Open Parking Area	17 ECS

7. LANDSCAPE DEVELOPMENT

Increasing vegetation in the form of greenbelt is one of the preferred methods to mitigate air pollution. Plants serve as a sink for pollutants, reduce the flow of dust and reduce noise pollution. The site for the proposed buildings is vacant so, no tree cutting is required. Calculation of green area for proposed project is given in **Table-7**.

Table-7: Calculation of Green Area

Total Plot Area	47162.19 Sqm.
Landscape area provided @ 27.70 %	13066 Sqm.
Total No. of Trees will be Planted @ 1 tree per 80 Sqm. of Plot Area	590 Nos.

8.0 WATER REQUIREMENT, SUPPLY AND DISTRIBUTION

Water Requirement for the proposed project is discussed below.

8.1 Water requirement during Construction phase

Approx. 21 KLD water will be required for domestic as well as for construction purpose. Source of fresh water will be packaged drinking water. Source of construction water is treated water & tanker water supply.

No use of ground water or surface water will be used during the construction activity

- Cement mixing – 05 KLD
- Curing -02 KLD
- Sprinkling -05 KLD
- Domestic purposes – 9 KLD

7.2 Water requirement during operation phase

Water requirement during the operational phase will be met through ground water. The total water requirement for the proposed project has been estimated **~872 KLD**. This includes domestic water requirement, flushing and landscaping. The total fresh water requirement is **~535 KLD** which includes domestic water requirement & Fresh Water for Swimming Pool. The water requirement for flushing and landscaping will be met through treated water from STP. Details of break-up of water requirement are given in **Table-8**.

Proposed Group Housing “Ashirwad Sundarlal City” at Bhelwara, Patna by Ashirwad Engicon Pvt. Ltd.

Table-8: Details of Water Requirement

S. No.	Description	No. of units / Area in Sqm	Unit Population / Dwelling unit Population	Total Population	Per unit water consumption (lpcd)	Total water required (kld)	Fresh water required (kld)	Flushing (kld)	Total Wastewater (kld) (80% of domestic +100% Total flushing)
1	Main Dwelling Units (Residential) 4 BHK, 3 BHK, 2 BHK & 1 BHK	1294	4 BHK: 7 Person 3 BHK: 6 Person 2 BHK: 5 Person 1 BHK: 4 Person	7236	90 (50+40)	651	361.8	289.44	579
2	Visitors (10% of the residential population)	...	...	723	15 (10+5)	10.85	7.23	3.62	9.40
3	Swimming pool	1	...	...	64.71	64.71			58.00
4	Commercial-Shop staff	240 Shop & 2 Anchor Shop	3 & 10	740	45 (25+20)	33.30	18.50	14.80	29.60
5	Visitors (10 sqm. of the commercial shop Area)	8240	...	824	15 (10+5)	17.85	82.40	41.20	107.12
	Subtotal -I					778	470	349.06	783
	Horticulture	13066	7 liter/sqm of Landscape area	...		91			
	DG Sets	1750	2 lt./KVA/6 hr	...		3			
	Subtotal II					94			
	Grand Total I+II					872			
	STP requirement 20% extra than waste water generated				940	940			
	Treated water generation @80% of waste water				626	626			

Proposed Group Housing “Ashirwad Sundarlal City” at Bhelwara, Patna by Ashirwad Engicon Pvt. Ltd.

	Reuse of treated water								
	Flushing	...	...	...	...	68			
	Horticulture	13066	7 liter/sqm of Landscape area	...		5			
	DG Sets	1750	2 lt./KVA/6 hr	...		2			
	Other Construction activity					183			

8.3 Wastewater Generation

The total estimated quantity of wastewater to be generated from proposed project is **~783 KLD**.

Calculation of wastewater generation is shown below in **Table-9**.

Table-9: Calculation of Wastewater Generation

Details	Water (KLD)
Water requirement for domestic purpose	470
Wastewater to be generated from domestic use (@ 80% of domestic water requirement)	376
Water requirement for Swimming Pool	65
Wastewater to be generated from Swimming pool use (@ 90 % of domestic water requirement)	58
Water requirement for Flushing Purpose	349
Wastewater to be generated from Flushing (@ 100% of flushing requirement)	349
Total Wastewater generated	783
STP capacity 20% higher than total waste water	~940

Water balance diagram for given in **Figure-5**.

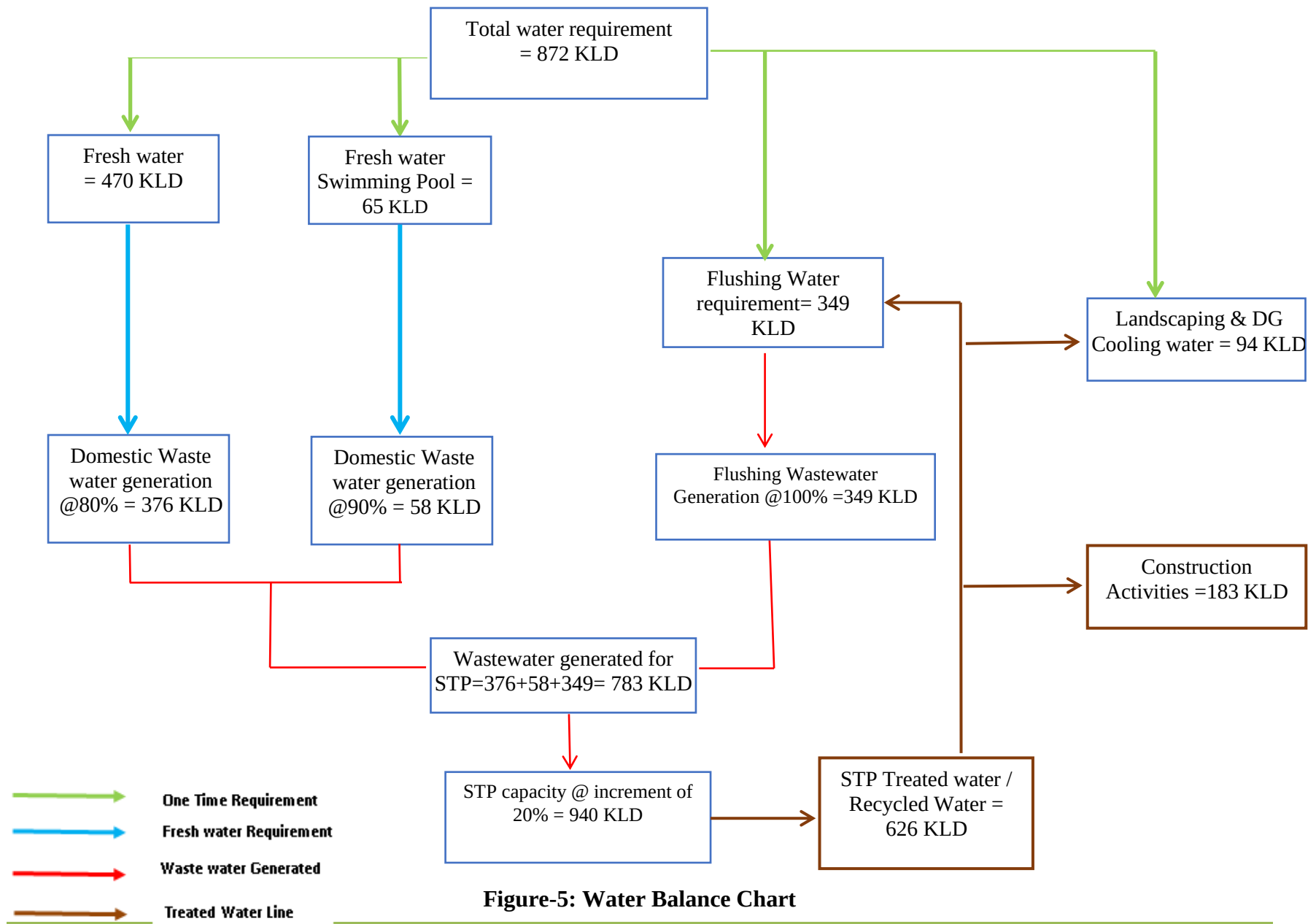


Figure-5: Water Balance Chart

Reuse of Treated Water:

Waste water generated is 783 KLD, which will be treated in the onsite STP of capacity 20% more than the waste water generated i.e., 940 KLD. The treated water available is 626 KLD (@ of 80%) and it will be recycled and re-used for flushing and landscaping purpose.

During the non-monsoon season, treated water will be used in Flushing & landscaping management and during the monsoon season, as there will be no requirement of water for landscaping, and the excess treated water depending upon requirement either will be used in nearby construction site or discharged into the sewer line.

Pre-treatment:

To reduce the chances of membrane damage, wastewater should undergo a high level of debris removal using screens prior to the MBR. Primary treatment is often provided in larger installations. In addition, all MBR systems require 1- to 3-mm-cutoff fine screens immediately before the membranes, depending on the MBR manufacturer. These screens require frequent cleaning.

Membrane Configuration:

MBR manufacturers employ membranes in two basic configurations: hollow fiber bundles and plate membranes. A number of **bundles** are connected by manifolds into units that can be readily changed for maintenance or replacement.

The other configuration, employ **membranes** in a flatplate configuration, again with manifolds to allow a number of membranes to be connected in readily changed units.

System Operation:

All MBR systems require some degree of pumping to force the water flowing through the membrane. While other membrane systems use a pressurized system to push the water through the membranes, the major systems used in MBRs draw a vacuum through the membranes so that the water outside is at ambient pressure. The advantage of the vacuum is that it is gentler to the membranes; the advantage of the pressure is that throughput can be controlled. All systems also include techniques for continually cleaning the system to maintain membrane life and keep the

system operational for as long as possible. All the principal membrane systems used in MBRs use an air scour technique to reduce buildup of material on the membranes. This is done by blowing air around the membranes out of the manifolds.

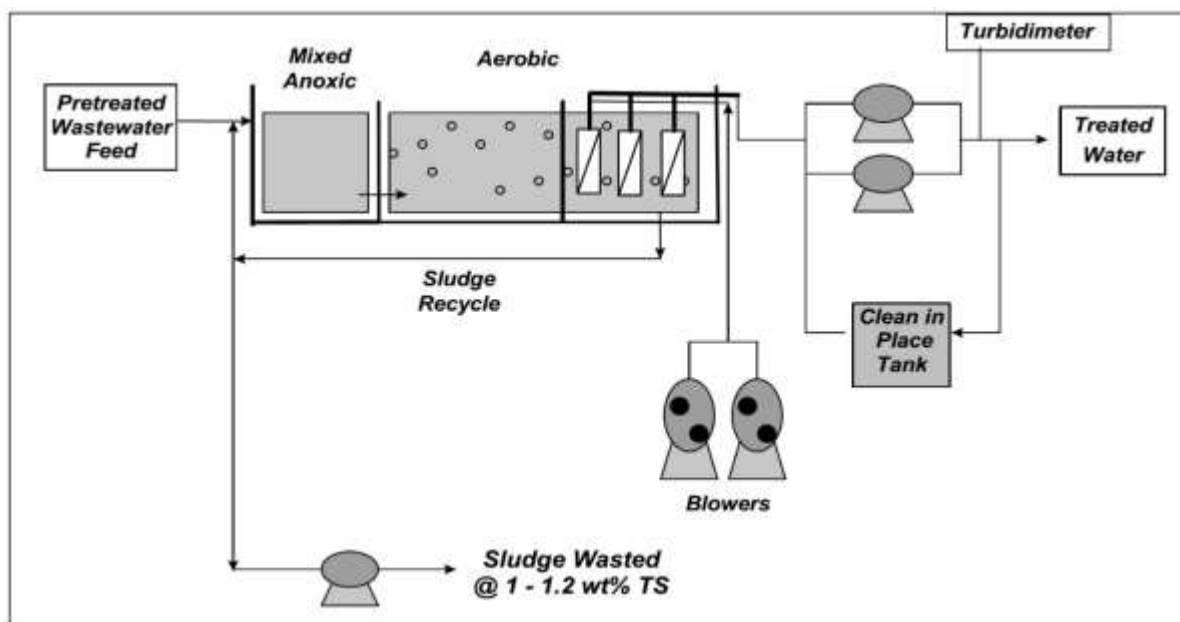


Figure 6: Schematic Diagram of MBR STP

8. STORM WATER MANAGEMENT

The storm water disposal system for the premises shall be self-sufficient to avoid any collection/stagnation and flooding of water. Maximum harvesting will be done within the site. Therefore, it has been decided to provide sufficient rain water harvesting at selected locations, which are liable to catch the maximum run-off from the area. Following are some measures for Storm water disposal:

- 1) Since the existing topography is congenial to surface disposal, a network of storm water pipe drains is planned adjacent to roads. All building roof water will be brought down through rain water pipes.
- 2) Proposed storm water system consists of pipe drain, catch basins and seepage pits at regular intervals for rain water harvesting and ground water recharging.
- 3) The annual rainfall intensity of 40 mm/hr shall be considered for designing the storm water drainage system.

The entire site is provided with extensive planned drainage system to low lying areas. The arrangement provides appropriate protection to the site against flooding.

10. RAIN WATER HARVESTING

Rainwater harvesting is the activity of direct collection of rainwater. Collected Rainwater will be stored for direct use or for recharging the groundwater. Rain Water Harvesting is the technique through which rain water is captured from the roof and paved surfaces and stored in sub-surface ground water reservoir by adopting artificial recharge techniques.

Advantages:

- ✓ To meet the ever increasing demand for water.
- ✓ To avoid flooding of roads.
- ✓ To augment the ground water storage and control the decline of water table levels.
- ✓ To reduce ground water pollution.
- ✓ To improve the quality of ground water.
- ✓ To reduce the soil erosion.
- ✓ To supplement domestic water requirement during summer, drought etc.
- ✓ Improves the quality of ground water through dilution when recharged to ground water.

As stated above, due to high ground water table, it is not feasible to provide the rain water recharge pits for aquifer recharging but there will be provision of the water sump for the collection of roof top rain water and it will be further used for miscellaneous purposes. The rainwater runoff from the roofs shall be transported through underground pipes to water sumps structures & surface rainwater shall naturally percolate in the underground aquifer through natural filtration.

Table-10: Rainwater Harvesting Calculation

Estimation of Quantum of runoff available through Rain water harvesting (within premises)				
Input Data			Unit	Reference
Catchment Area		Value		
1	Rooftop Area of Building/shed	11032.95	sq-mtr	
2	Green Belt Area	13066	sq-mtr	
3	Paved Area	12682.71	sq-mtr	
4	Open Area	10380.53	sq-mtr	

Proposed Group Housing “Ashirwad Sundarlal City” at Bhelwara, Patna by Ashirwad Engicon Pvt. Ltd.

	Total	47162.19		
Run off Coefficient, c				
	Rooftop Area of Building/shed	0.85		RWH in India, MoEF&CC, e-book 2016
	Green Belt Area	0.15		
	Paved Area	0.75		
	Open Area	0.15		
				CGWB Patna
Rainfall				
	Average Annual Rainfall	1076	mm/year	
	Hourly Peak Rainfall Intensity, I	45	mm/hour	
	Peak Time taken	15	minutes	
Total Volume of Water to be Captured on Annual Basis				$Q = A * c * I$
	Rooftop Area of Building/shed	10090.74	cu-m/year	
	Green Belt Area	2108.85	cu-m/year	
	Paved Area	10234.95	cu-m/year	
	Open Area	1675.4175		
Runoff Calculation for the Peak Rainfall, Q				
	Rooftop Area of Building/shed	105.50	cu-mtr/hour	RWH in India, MoEF&CC, e-book 2016
	Green Belt Area	22.05	cu-mtr/hour	
	Paved Area	107.01	cu-mtr/hour	
	Open Area	17.52		
	Total	252.08	cu-mtr/hour	
Annual Recharge Potential				
	Recharge Potential	24109.95	cu-m/year	IMD
	Rainy Season	June-Sep		
Design of Recharge Structure for Peak Flow				
Calculation for One Pit				
	Diameter of Pit	3.5	mtr	
	Depth of the Pit	3	mtr	
	Volume of the Pit	28.86	cu-mtr	
Number of Pits Required to store the peak discharge		8.7		
Rain water harvesting Pits provided		9		

Number of RWH Pits Proposed = ~9

11. POWER REQUIREMENT

The total electrical load demand has been estimated to be ~7000 KW. The source of power will be supplied by State Electricity Board.

In case of power failure, 4 DG sets of each of capacity of 3 x 750 KVA & 1 x 500 KVA will be provided as power back-up. The DG sets are located in the basement and will be air cooled.

The DG sets will be provided with acoustic enclosure. Adequate stack heights of D.G. Sets will be provided as per the stipulated guidelines of Central Pollution Control Board (CPCB) to facilitate natural dispersion of exhaust gases as the calculation for the stack height is given below considering height of the building

Calculation of DG Stack Height:

$$H = h + 0.2 \sqrt{\text{(capacity of DG in KVA.)}}$$

Where:

H = Total height of stack in meter.

h = Height of the building in meters where the generator set is installed.

KVA = Total generator capacity in the set of KVA.

For DG set of 750 KVA

$$H = h + 0.2 \sqrt{750}$$

$$H = h + 0.2 \times 27$$

$$H = h + 5$$

We suggest 5 meter above the max. Height of the building

For DG set of 500 KVA

$$H = h + 0.2 \sqrt{500}$$

$$H = h + 0.2 \times 22$$

$$H = h + 5$$

We suggest 5 meter above the max. Height of the building

12. SOLID WASTE GENERATION AND MANAGEMENT

The project will adopt a systematic approach for solid waste collection and disposal. Solid waste generated from the project will be collected properly and will be managed as per Solid Waste Management Rules, 2016. Following solid waste generation rate has been considered as given in **Table-11.**

Table 11: Solid waste Generation details

S. No.	Category of Solid Waste	Waste Generation Rate	Formula	Total Population	Waste Generated	Bio-degradable	Non-biodegradable
1	Residential Refuse	0.3 to 0.6 kg/cap/day	Total Population*0.45	7236	3256.2	1399.68	1856.52
2	Visitor (10% of the residential Population)	0.1 to 0.3 kg/cap/day	Total Population*0.1	723	72.3	43.38	28.92
3	Commercial refuse	0.05 to 0.2 kg/cap/day	Total Population*0.1	740	74	44.4	29.6
4	Visitors (10 sqm of the commercial shop B.U Area)	0.1 to 0.3 kg/cap/day	Total Population*0.1	824	123.6	74.16	49.44
	Total			9523	3526	1562	1964

Reference: NBC 2016

Source: Manual on Municipal Solid Waste Management, published by Central Public Health and Environmental Engineering Organization (CPHEEO), Ministry of Urban Development, Government of India.

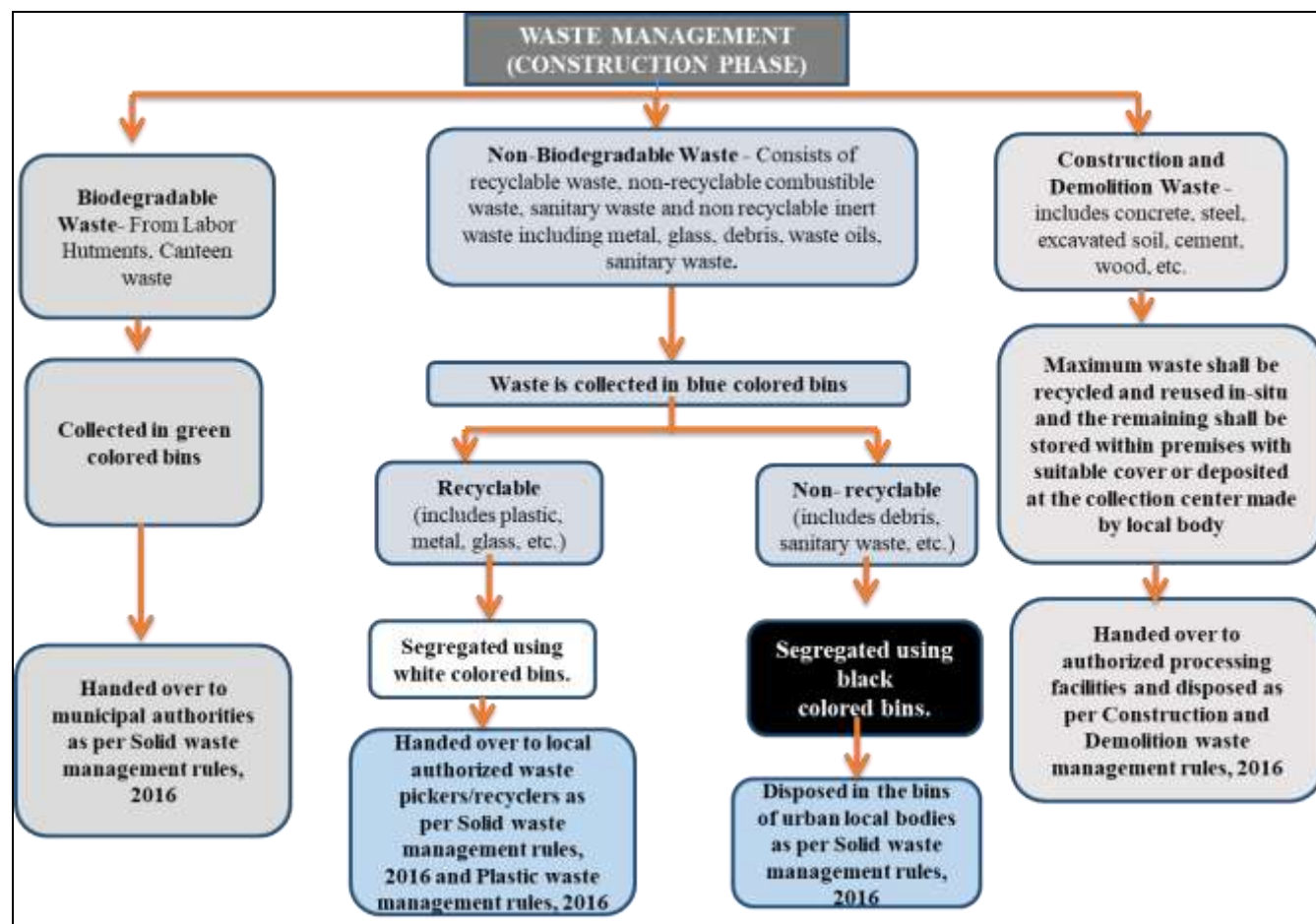


Figure-7: Solid Waste Management during Construction Phase

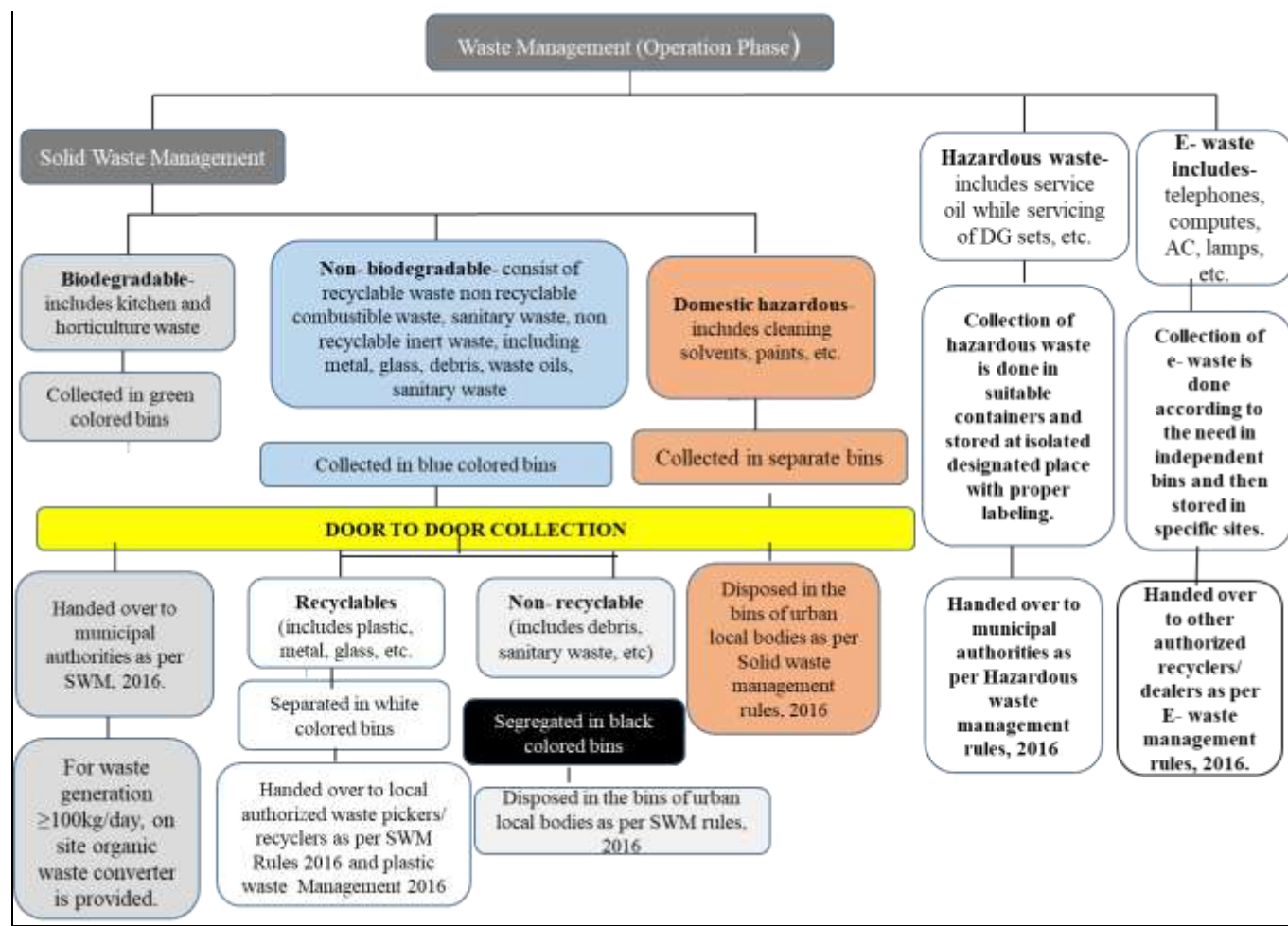


Figure-8: Solid Waste Management during Operation Phase

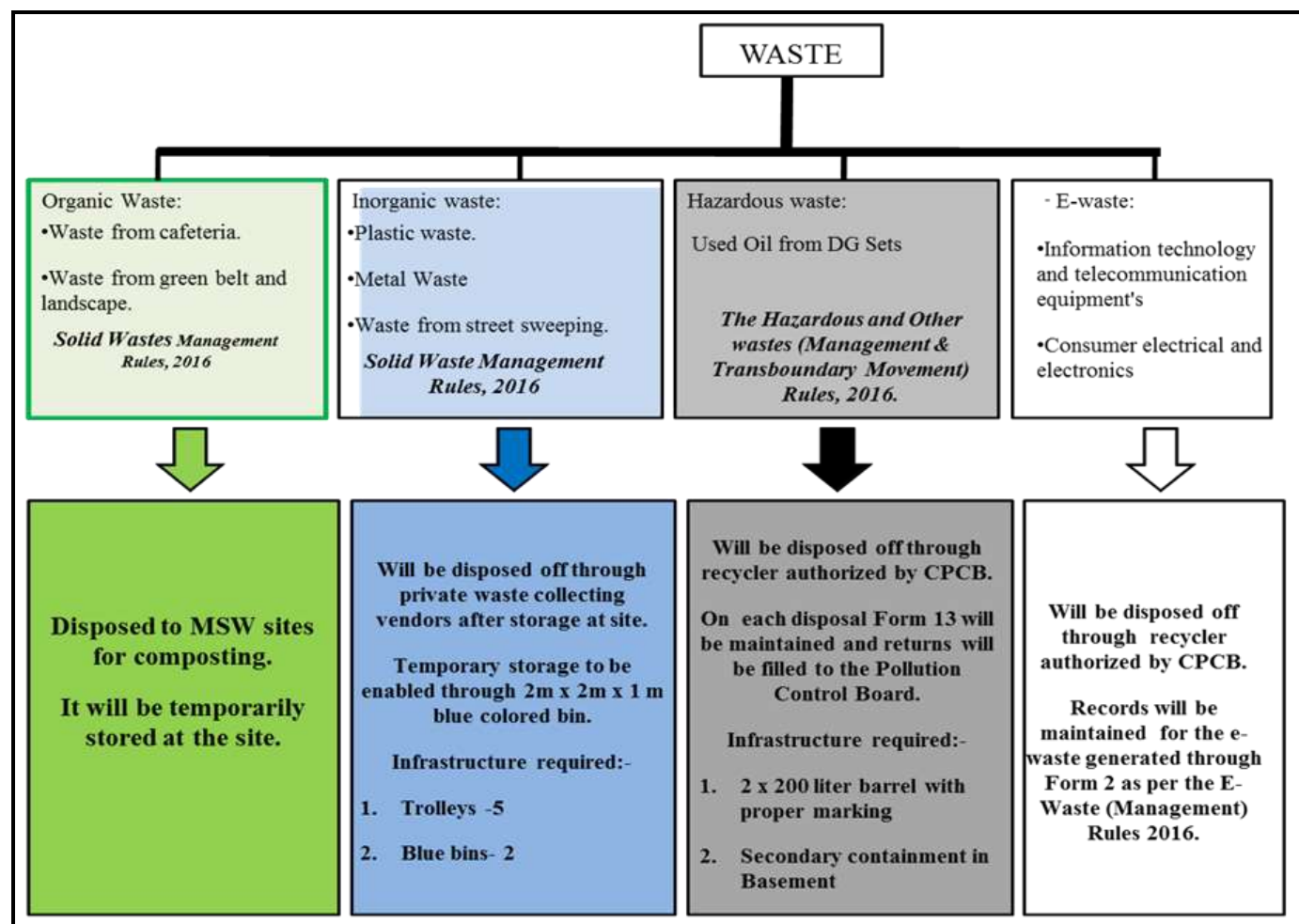


Figure-9: Hazardous Waste Management Plan

13. FIRE FIGHTING SYSTEM

The Fire Fighting will be designed as per the recommendations of the National Building Code of India: Part 4 Fire and Life safety: 1997. The building has been classified under Group-C: Institutional Building, Sub Division (C-1) in the National Building Code 2016.

The fire-fighting system has been designed considering the following codes, manual and guidelines;

- National Building Code of India (NBC)
- As per requirement of fire officer/local fire approving authorities; and
- As per Indian Standard Code for Fire Protection (IS Codes)

14. DETAIL OF CONSTRUCTION MATERIAL

List of building materials will be used at site:

- Sand 1035600 ton
- Stone aggregate(10 MM)-231487 ton
- Stone aggregate(20 MM)-540137 ton
- Cement(50 Kg/BAG)-507647 BAG
- Bricks-10787509
- Steel- 4759 Ton

PLY- 507585 SFT Finishing materials like tiles, sanitary fixtures, etc. shall be stored in closed rooms..

16. Occupational Health and Safety (during construction)

The Management of the project has committed for the health and safety of workers as under;

- The management declares its intention and commitment with all relevant statutory requirements in regard to environment, health and safety of workers.
- The management has assigned the responsibility at different levels as:

Project Manager : For all the workers/employees.

Supervisor : For casual and daily/unskilled workers.

The management will ensure the occupational health and safety, at the site during construction, by adopting following practices;

- a) Every responsible effort will be made to provide and maintain safe and healthy working conditions, environment, and system of work for all employees.
- b) It will also endeavor of the project proponent to ensure that surrounding environment is not adversely affected by the work activity.
- c) The working environment would be healthy and co-operative.
- d) The prevention of accidents or accident hazards leading to personal injury or damage of equipment/property is recognized as essential as an integral part of efficient operations.
- e) Every employee will follow safety rules/regulations, operating procedures/safe work method

design to protect people and equipment from risk of injury or damage to property.

- f)** The project will endeavor to adequately train all employees suitably equip them to perform their duties in a safe and effective way.
- g)** Every employee will discharge his personal responsibility, and shall co-operate and actively participate in maintaining and improving safety standards.
- h)** A primary health care centre will be provided within the campus. Besides, there is a multi-specialty private hospital (on panel of the institute) just opposite to the institute entrance.
- i)** A doctor will be appointed for health checkup of workers at regular intervals and related records shall be maintained. A doctor and a hospital will be empanelled for attending off site health problems of the workers.
- j)** First Aid kits will be kept ready and available to the workers, in case of emergencies, company will provide fastest possible medical aid. Staff will be adequately trained for this.
- k)** Adequate supply of clean drinking water, neat and clean toilets and washing facilities will be provided at the site.
- l)** Proper ventilation, wherever required, shall be provided in the work areas.
- m)** Proper safety and protections, steps and guards shall be provided at all required places.
- n)** Suitable safety instructions will be displayed in writing (including that in vernacular language) for all critical areas and working conditions.
- o)** A vehicle/ambulance will be specifically positioned at the site for emergency evacuation of workers in case of any health problem/accident.
- p)** ***Budget of Rs. 3,00,000/- will be allocated under Occupational health & safety programme during construction phase.***
- q)** ***Budget of Rs. 4,00,000/- will be allocated under Occupational health & safety programme during operational phase.***