



# Nicon Developers

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**Date: 25.01.2017**

To,  
**The Director,**  
**Infrastructure and Miscellaneous Projects & CRZ**  
Indira Paryavaran Bhavan  
Jor Bagh Road,  
New Delhi - 110 003

**Sub:** Application for Prior Environmental Clearance for proposed development of Residential project cum commercial project "**NICON GREENVILLE**" at S. No. 42 (PT), 42Pt & 43 PT at Village: Vevoor, Tal & Dist.-Palghar. [F. No. 21-15/2016-IA-III]

**Ref:** Minutes of 11<sup>th</sup> EAC (Infra-II) meeting held on 25.11.2016 (Item no. 11.3.3) (File No. 21-15/2016-IA-III)

Dear Sir,

We are very much thankful to Expert Appraisal Committee (Infra-2) for appraising our above referred project in its 11<sup>th</sup> Meeting held on 25.11.2016 (Item no. 11.3.3)

As per the minutes of the meeting, we were asked to comply with certain points raised by committee. The point wise reply to the queries raised is enclosed herewith. We hope that reply is in line with your requirement.

Thanking you,  
Yours faithfully,

**FOR NICON DEVELOPERS**

For NICON DEVELOPERS

  
Partner  
K T Shah

For NICON DEVELOPERS

  
Partner  
F A Patel

**Authorised Signatory**

**Enclosures:**

1. As above

**POINTWISE COMPLIANCE TO QUIRIES RAISED DURING  
11<sup>th</sup> EAC (Infra-II) MEETING**

**Point No. 1:** Status of application of the project proposal in SEIAA, Maharashtra.

**Compliance:** The application is not considered at SEIAA, Maharashtra as the SEAC MMR's tenure is over and there is no committee for appraisal of projects. Hence, we have applied to MoEF&CC, Delhi on 28.10.2016.

**Point No. 2:** Copy of application submitted for clearance from NBWL.

**Compliance:** As per the ESZ notification of Sanjay Gandhi National Park (SGNP), vide no. S. O. 3645 (E) dated 05.12.2016, our project site is outside of ESZ i.e. (100 m); hence clearance from the Standing Committee of the National Board for Wildlife is not applicable for our project. The project site is also outside the ESZ of Tungreshwar Wildlife Sanctuary (at 12km). Hence clearance from NBWL is not applicable for our project.

**Point No. 3:** Present landuse of the proposed project site.

**Compliance:** Present landuse of proposed project site is for Residential cum Commercial use as per the DP Palghar Municipal Council (PMC) & the same is given in Figure No. 1.

Figure No. 1: Project site boundary marked on DP



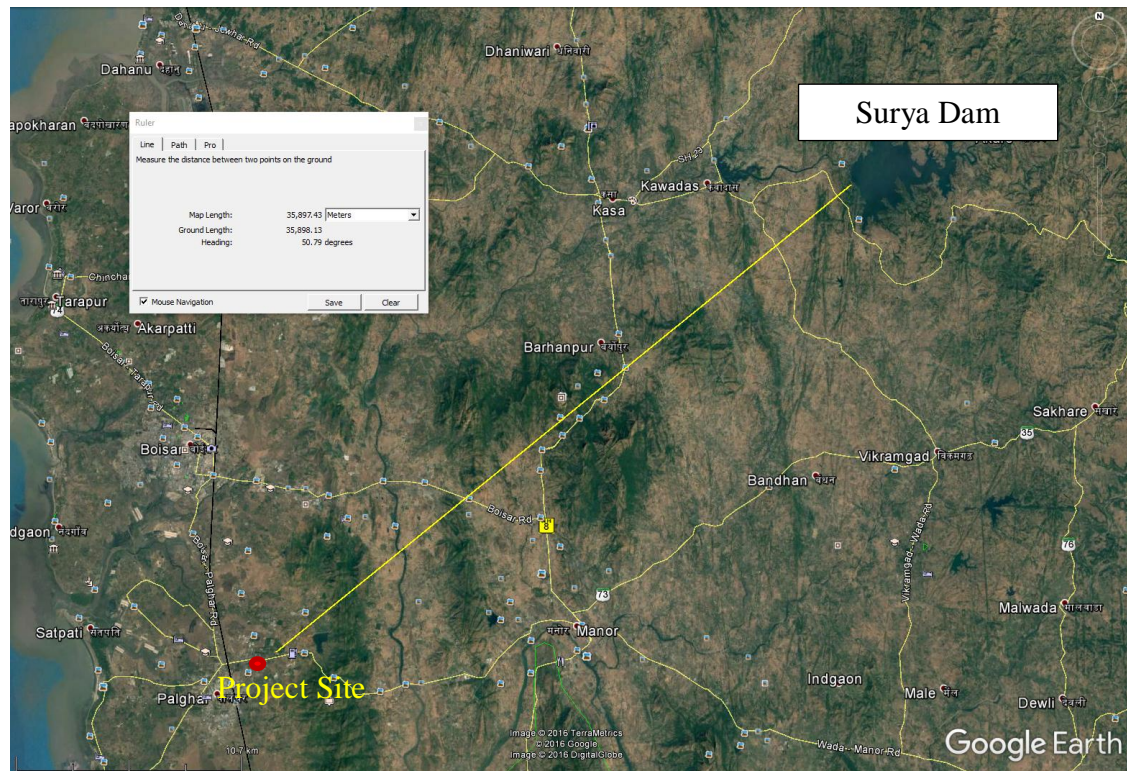
**Point No. 4:** Building Sanction plan

**Compliance:** The Municipal Council requires Prior Environmental clearance to sanction building plans. We will apply for sanction after the project receives EC.

**Point No. 5:** Google map indicating distance of Surya Dam from the project site.

**Compliance:** The Surya Dam is on the North East direction of the proposed site located at a distance of 35 km. The Google map showing the location of Surya Dam is shown in Figure No. 2.



**Figure No. 2: Google Image – Distance between Surya dam and project site**

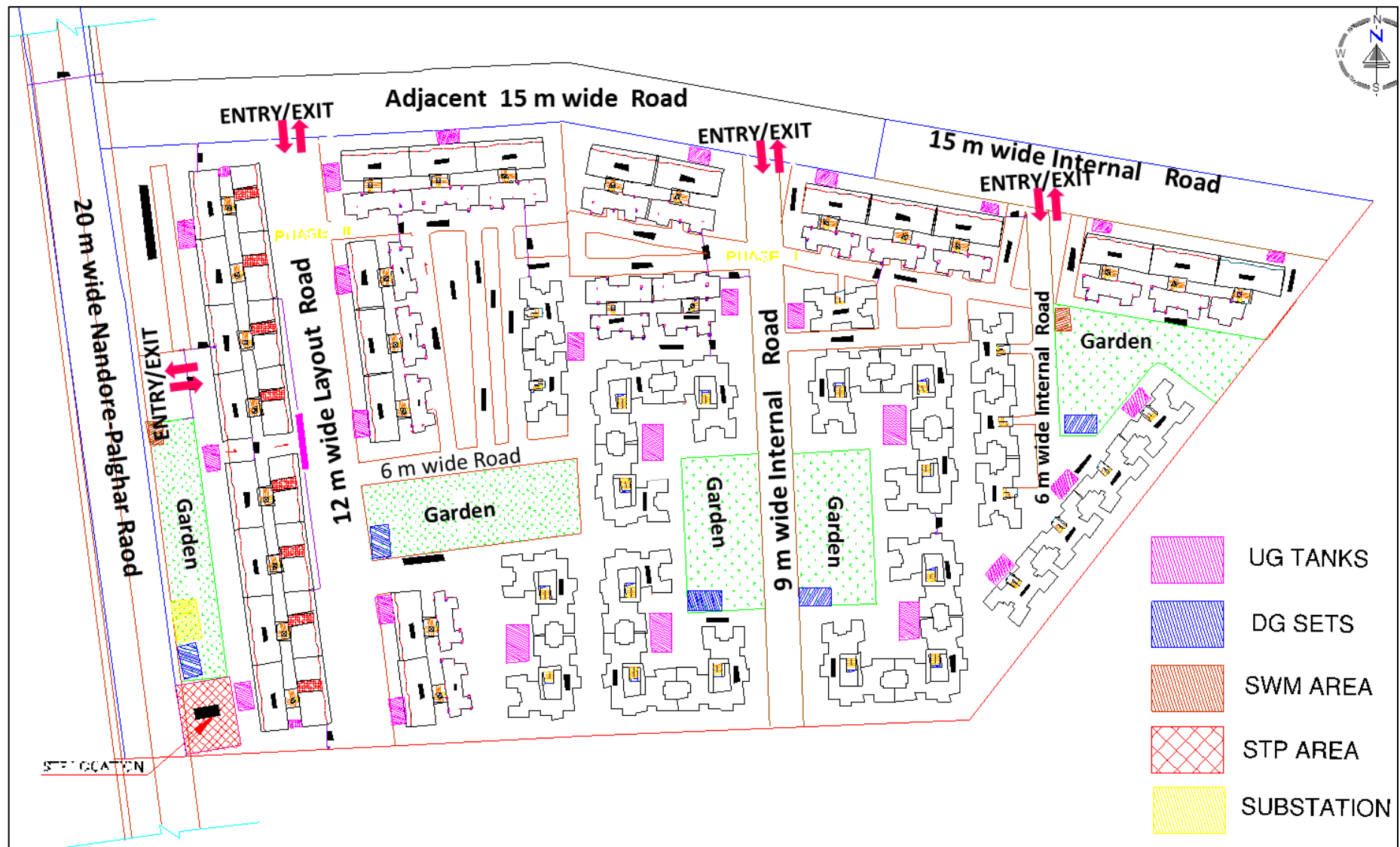
**Point No 6:** Commitment that shops and other establishments in residential blocks will have to conform to residential area norms in terms of noise pollution and vehicular movements and shall not create a nuisance for residents of the Blocks.

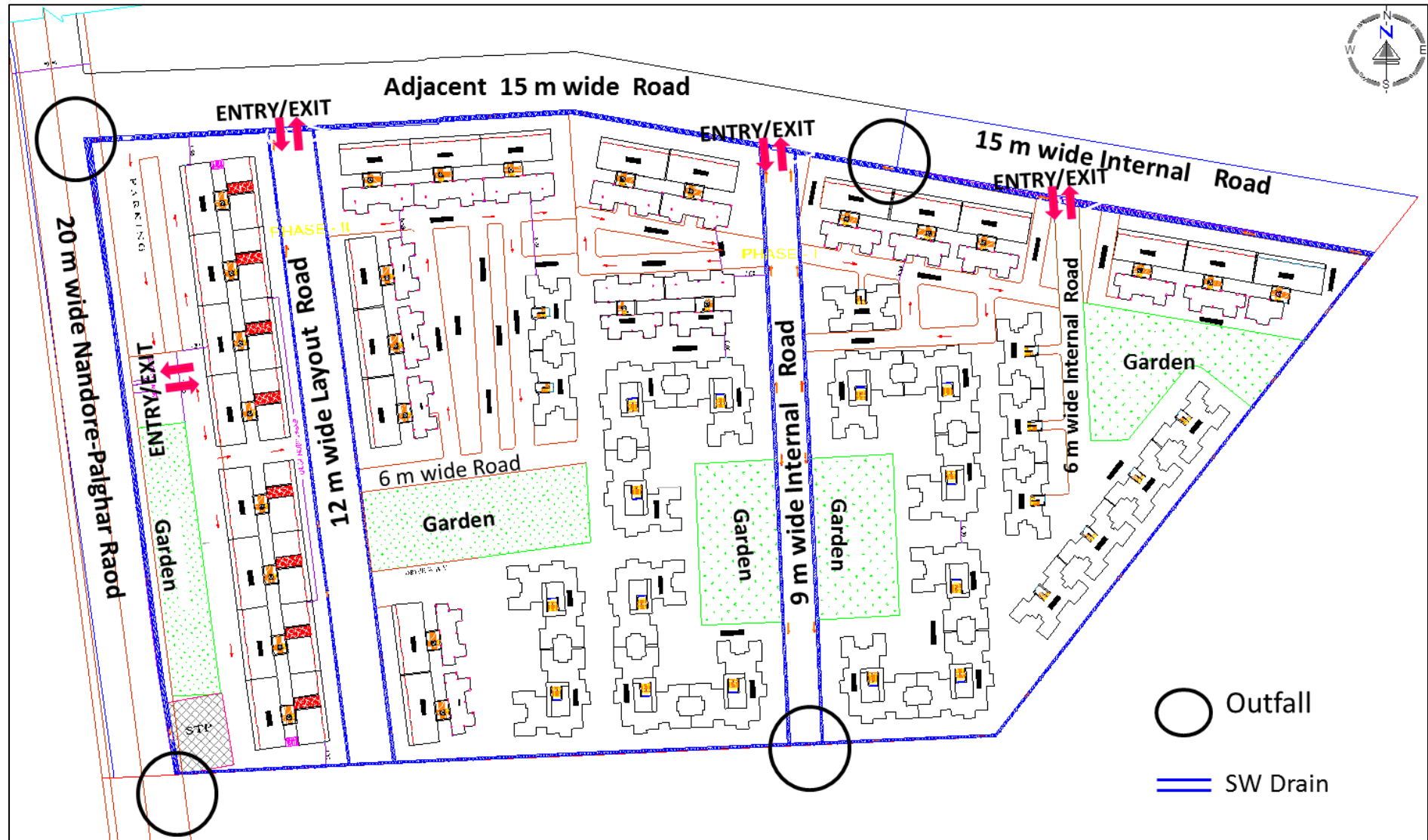
**Compliance:** We hereby confirm that shops in the residential blocks will not create any nuisance due to noise pollution and vehicular movements.

**Point No 7:** Layout plan indicating road, greenbelt, drainage, sewer line, STP, solid waste handling area, rain water harvesting structure, etc. in different colour to be furnished.

**Compliance:** Co-ordinated drawing showing Layout plan indicating road, greenbelt, drainage, sewer line, STP, solid waste handling area, rain water harvesting structure etc. with different colour codes is given in the following figure.

Figure No. 3: Coordinated layout with landscape, location of STP, SWM, RWH, SWD UG tanks and sewer line





**Point No 8:** Layout of parking plan indicating entry and exit points of vehicular movement as well as traffic management plan. Highlight the fire tender pathway.

**Compliance:** The parking provision for the project is done as per DCR. Parking statement is given in Table no. 1.

**Table No. 1: Parking statement:**

Sr. No.	Occupancy	Carpet Area	No. of Tenements	Details	
				Car	Scooter
1.	Commercial	100m <sup>2</sup> Built-up area of fraction there of built-up area 4052.88 m <sup>2</sup>	184	32	210
2.	Residential	a) 2 Tenements having built-up area more than 100 m <sup>2</sup>	0	0	0
		b) 3 tenements having built-up area between 50 to 100 m <sup>2</sup>	228	95	250
		c) 4 Tenements having built-up area upto 50 m <sup>2</sup>	620	0	748
		<b>Total</b>	<b>1032</b>	<b>127</b>	<b>1208</b>

The traffic survey was conducted to ascertain the present traffic scenario along **Nandore Road and Palghar-Manor Road** to evaluate traffic impact that will result from proposed development. The two key component of study included the assessment of the present Scenario and impact on traffic due to the proposed development



**Table No. 2: Peak Hour PCU count**

Road	2 Wheeler	Auto	Car	LCV	Bus	Truck	Total
Nandore Road	48	68	38	17	4	9	184
Palghar-Manor Road	75	102	75	44	14	14	324

**Table No. 3: Peak Hour PCU Count, Level of Services and General Operating Conditions**

Road	Year	Projected PCU/hr	V/C	LOS	General Operating Conditions
Vasai Station Road	Present	184	0.15	A	Free flow
	5	247	0.20	A	Free flow
	10	318	0.26	A	Free flow
Palghar-Manor Road	Present	324	0.13	A	Free flow
	5	528	0.22	A	Free flow
	10	768	0.32	B	Reasonably flow

Present status of traffic congestion is shown Table No. 3 based on that traffic management has been prepared as follows:

The traffic management plan for the project will be as follows:

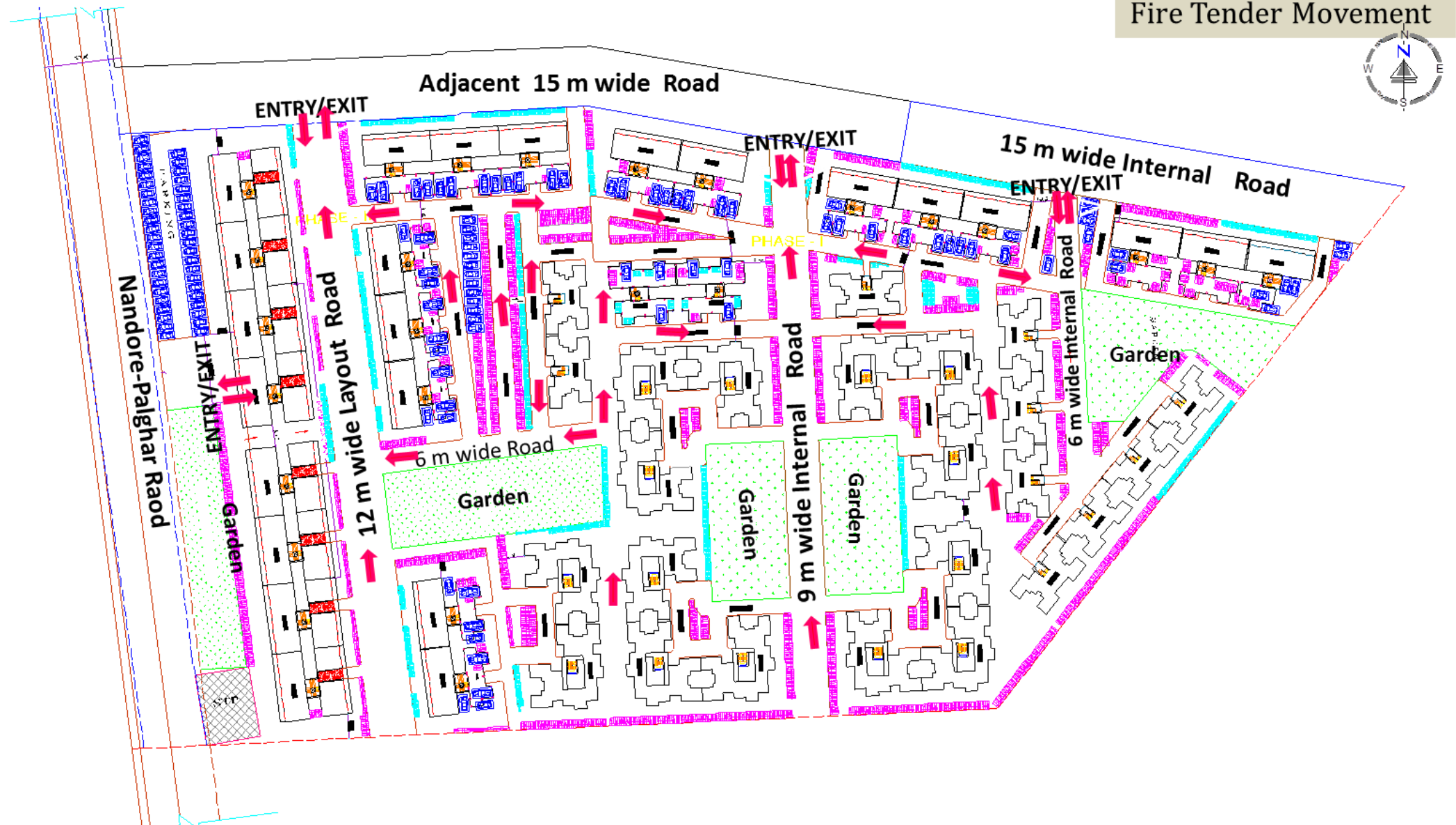
- Traffic control measures will be provided to regulate the flow of traffic/to streamline the traffic flow
- Adequate traffic signs will be provided to notify the residents.
- 3 entry/exit gates of 9 m each are planned for the proposed project which will help in even distribution of traffic.
- Multiple entries and exits are provided on different roads which will provide flexibility to enter and exit the proposed development during peak hours.
- Speed humps/Speed Breakers will be provided for traffic calming and restricting the internal vehicular speed to 10 km/hr.
- Traffic wardens will be assigned (at cart parking) to regulate the traffic flow
- Convex mirrors will be provided at blind corners

The parking plan showing entry and exits and fire tender movement plan are given in the following figures 4a and 4b

Figure 4 a : Parking plan showing vehicular and Fire tender movement



Figure 4 b : Parking plan showing vehicular and Fire tender movement







**Point No. 10:** Excess treated sewage disposal plan/scheme to be submitted.

**Compliance:** Excess treated water from our project will be disposed in proposed Municipal sewer lines.

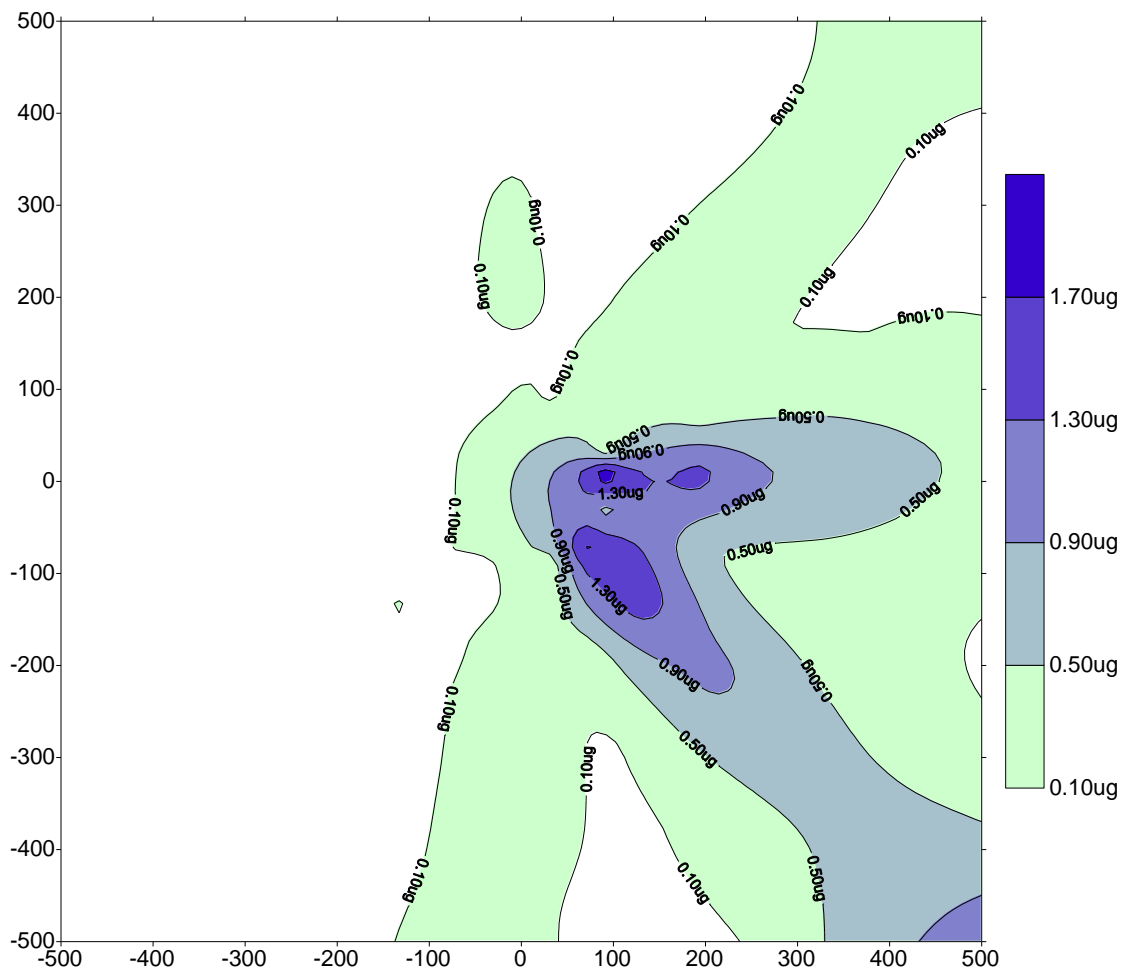
**Point No. 11:** Assessment of ground level concentration of pollutants due to DG set (1000 KVA).

**Compliance:** Assessment of ground level concentration of pollutants due to DG set of Total 1000 kVA capacity is given in the following Figure No. 6. The DG set operation will contribute towards the air pollution. These DG sets have been provided to take care of power availability during power failure from MSEDCL. However in the project area 24 hrs electricity is supplied, but on a precautionary basis the above DG sets have been proposed in case of any emergencies arising out of routine power failure. The impact of the DG sets on the environment has also been studied using mathematical model for ascertaining the gaseous pollutant impact.

The results of the mathematical model indicate that the maximum incremental increase in the SO<sub>2</sub> concentration is 1.7 ug/m<sup>3</sup>. The isopleths of predicted SO<sub>2</sub> concentrations is given in the figure below. This is confined to a small area of 1000 m in and around the project site. The predicted concentrations from the model will not lead to alter the baseline concentrations as it is well within the norms stipulated and also as the DGs will be used only during emergency.

**Figure No.6 : Isopleths of Predicted Concentrations for SO<sub>2</sub>**

## GLC: 1000 kVA DG SET



**Point No. 12:** Effort shall be made to reduce capacity of DG set upto 500 KVA and remaining standby power shall be met from solar energy.

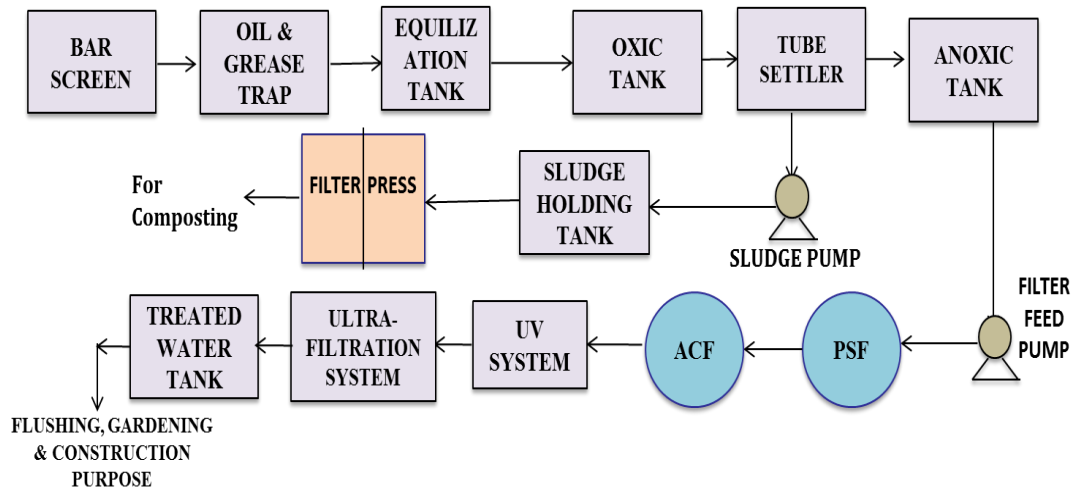
**Compliance:** We will provide standby power of 780 kW will be met from solar energy i.e. Solar PV panels. Kindly refer point no. 18 for solar calculations.

**Point No. 13:** Treatment scheme for sewage and its recycling mode.

**Compliance:** Total water requirement during operational phase is about 589 KLD. Sewage generation is about 550 KLD which will be treated in 580 KLD STP of MBBR Technology with anoxic tank. We are reusing treated water for gardening (23 KLD) & flushing (202

KLD). Excess Treated Water will be disposed to Municipal Sewer lines.

**Figure No. 7: Flow Sheet - Oxidic Anoxic attached media growth Treatment**



Anoxic processes are typically used for the removal of nitrogen from wastewater. The process of biological nitrogen removal is known as denitrification. Denitrification requires that nitrogen be first converted to nitrate, which typically occurs in an aerobic treatment process such as a trickling filter or aerated suspended growth system. The nitrified water is then exposed to an environment without free oxygen. Organisms in this anoxic system use the nitrate as an electron acceptor and release nitrogen in the form of nitrogen gas or nitrogen oxides. A readily biodegradable carbon source is also needed for efficient denitrification processes to occur. It should be noted that Sulfate can also be used as an electron acceptor, resulting in the formation of hydrogen sulphide.

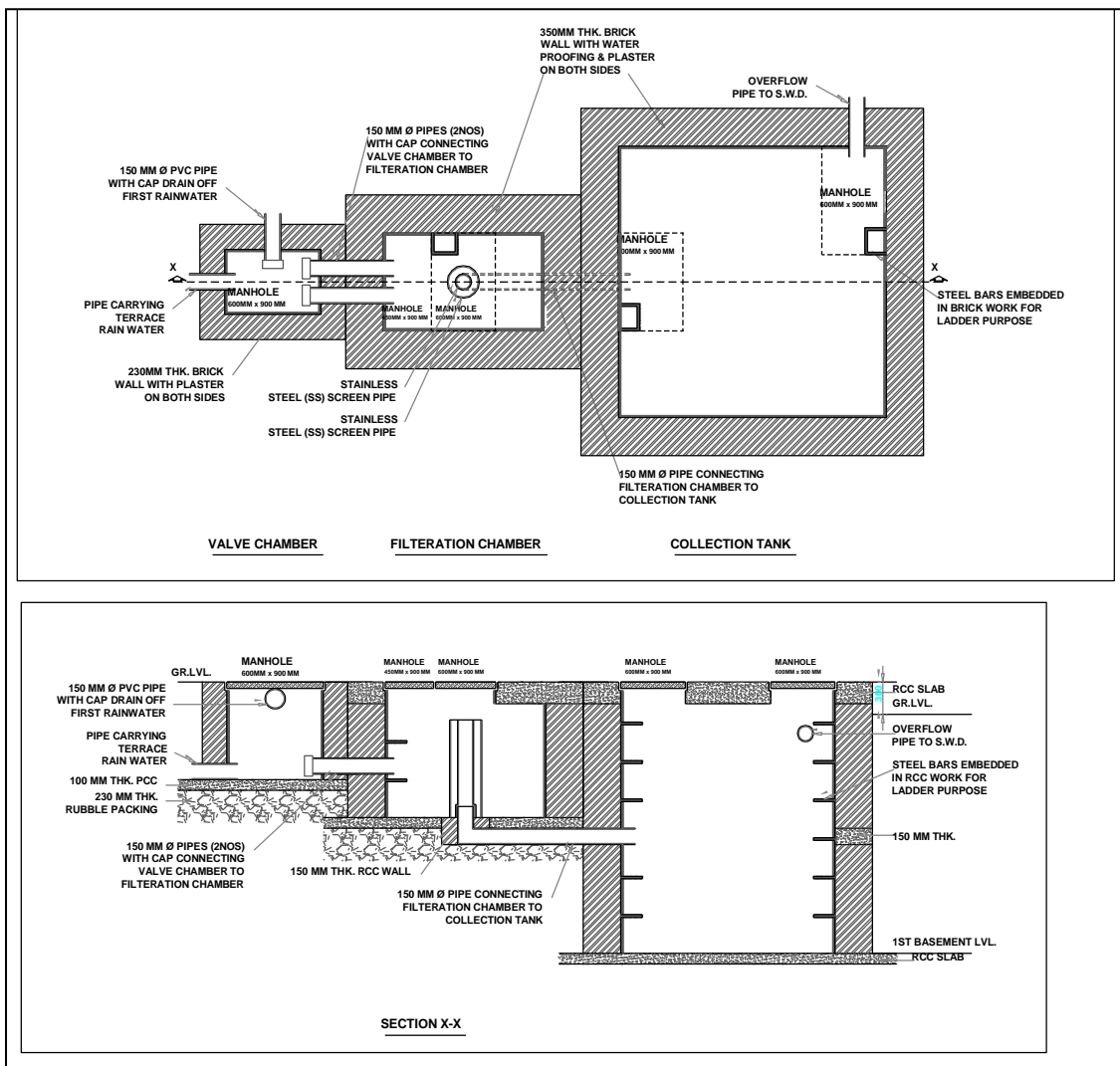
### Anoxic attached growth reactors

The basic form of the anoxic attached growth reactor is a submerged basin filled with a support medium and, in some cases, carbon source. Anoxic upflow rock filters have been used for nitrogen removal from nitrified wastewater. Nitrified wastewater flows into the bottom of the filter and is mixed with the carbon source as it flows up through the fixed packing. The organic matter in septic tank effluent is the most common carbon source used because of its availability; however, methanol or an alternate compound (e.g., soap) may also be used to supply carbon.

**Point No. 14:** Details of rain water harvesting system to be furnished. Clarity on recharge pits, storage systems for rain water and use of appropriate filtration system for collected rain water to be detailed.

**Compliance:** The rooftop rainwater will be stored in Rain Water Harvesting tanks after filtration through coarse and fine sand media. The roof top Rain water harvesting potential project is 181 m<sup>3</sup>/day & provision of 3 Rainwater Harvesting tanks having capacity 360 m<sup>3</sup> will be provided. As the groundwater table in the project area is between 2-5m, recharge pits are not feasible. The RWH unit with filtration chamber is shown in Figure 8.

**Figure No 8: Cross section of Rainwater harvesting unit**



**Point No. 15:** Calculation on sizing of solar water heating systems to be furnished.

**Compliance:** We will not be providing solar hot water panels as the terrace area will be utilized for provision of PV panels to provide energy for 2 solar powered lights and one fan in each flat and emergency backup.

**Point No.16:** A backup arrangement of at least 50% solar powered systems connected to the grid and at least two solar powered lights and one solar powered fan in each flat

**Compliance:** We have proposed solar panels to provide 2 solar powered lights and one fan for each of 869 tenements. The calculations for PV panels are given below:

**SOLAR PV PANEL CALCULATION**

Total Terrace Area	9068.25 m <sup>2</sup>
Potential of PV Power generation	850 kW
Power requirement of 2 lights and 1 fan Connection for 869 tenements	80 W x 869= <b>70 kW</b> approx
Solar Power to Grid/DG Backup	780 kW

**Point No. 17:** Solid waste management plan along with area earmarked for solid waste management scheme.

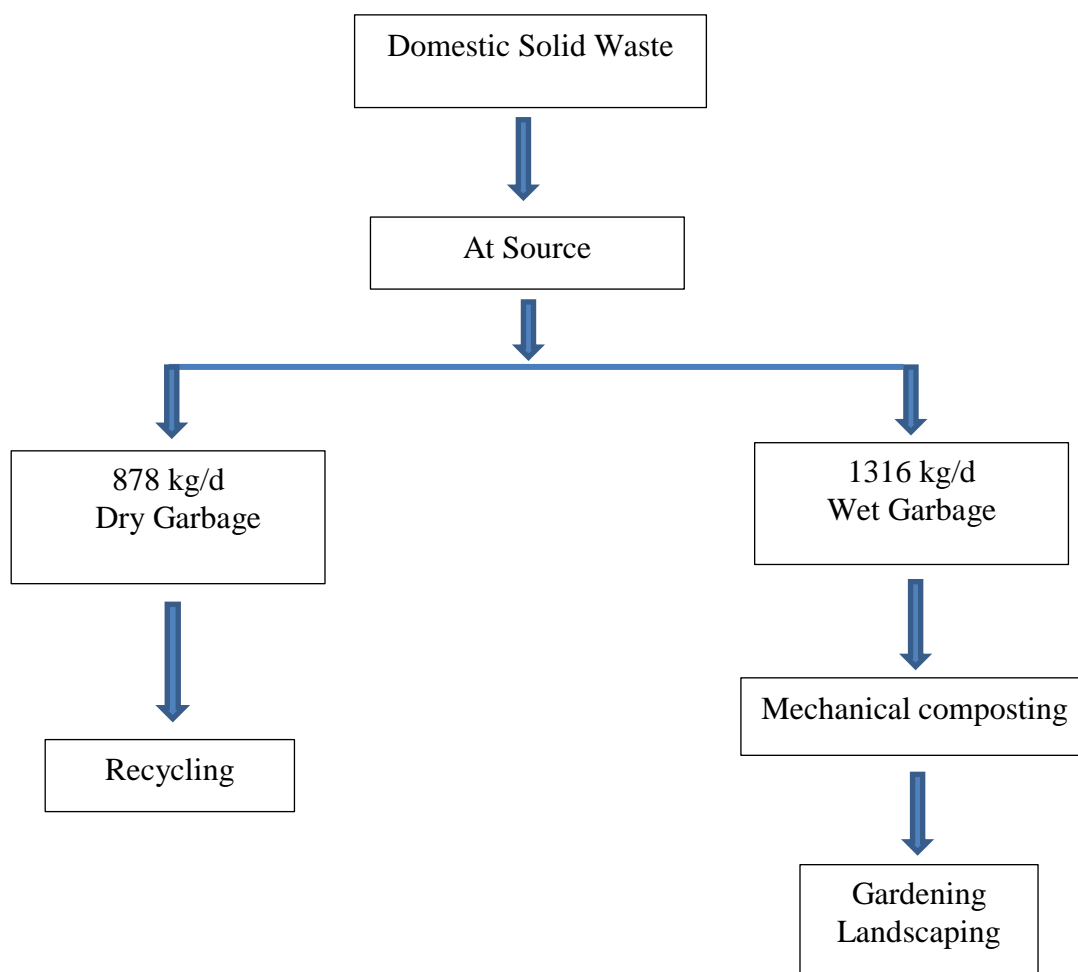
**Compliance:** Solid waste management plan along with area earmarked for solid waste management scheme and the location of the SWM in layout is shown in Figure No. 9.

- Total Solid waste generation : 2,194 kg/day
- The biodegradable component is : 1,316 kg/day
- Inert, recyclable waste is : 878 kg/day
- Segregation of dry and wet garbage will be done at source
- The biodegradable & non-biodegradable waste will be segregated at source
- Dry garbage as inert/recyclable waste such as plastics, glass, metals, rubber will be segregated and disposed off to recyclers
- Wet garbage/biodegradable matter as leftover food, vegetables will be composted using mechanical composting (Eco-Biocompack).

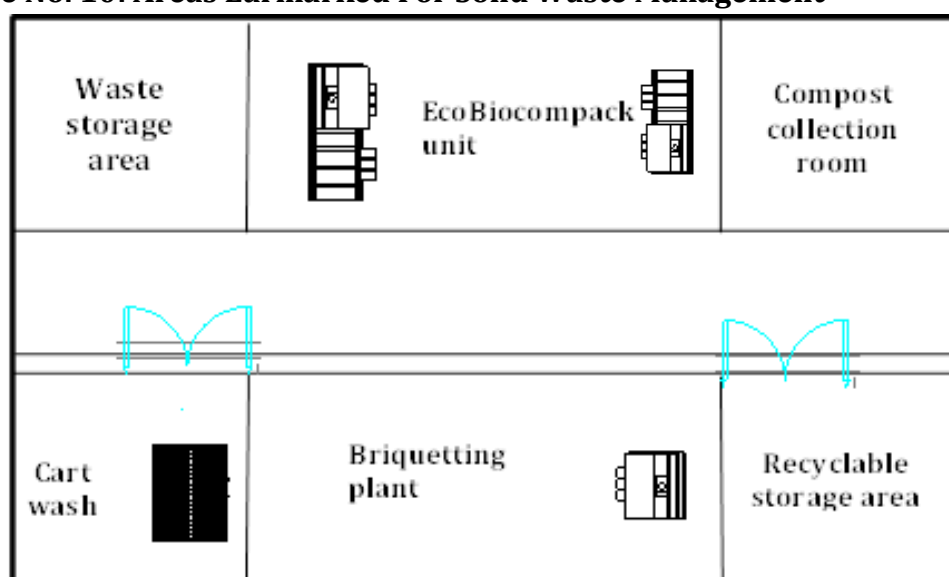


- 2composting unit of 700 kg/d capacity will be provided
- Total area for SWM: 120 m<sup>2</sup>

**Figure no. 9: Solid Waste Management Plan**



**Figure No. 10: Areas Earmarked For Solid Waste Management**



**Point No. 18:** Management of excavated soil. Pollution control measures to be taken to control fugitive emission during construction phase including marble /stone cutting.

**Compliance:** Excavated soil will be used for the Road pavement & site leveling. Fugitive emission during construction phase will be controlled by barricading & plantation along the plot boundary, water sprinkling at regular interval to arrest Air Bourne-dust, Use of Ready Mix concrete to avoid excessive movement of vehicles on the site.

**Point No. 19:** Details energy conservation measures to be taken. taken (all points mentioned in the proposal such as orientation to support reduced heat gain, use of ASHRAE 90.1, use of ECBC compliant envelope measures to be supported through drawings and details in the proposal

**Compliance:** Internal and external lighting design will be provided as required by ECBC which will have Lighting Power Density as per space requirements.

The project would provide 20% lower LPD than as specified in ECBC, to achieve energy saving, while providing the required illumination levels, by using high efficacy lighting.

Tree plantation is proposed along the periphery of the site ensuring adequate buffer and reducing heat gain by the building so that the buildings will remain naturally ventilated.

The project design will use high energy performing building materials which would have low U value (Thermal Conductance) as compared to the conventional materials. The external wall of building would use fly ash blocks.

The building envelop proposed to comply with the ECBC guidelines. for the proposed project and its parameters are given in Table No. 4.

**Table No. 4: Building Envelop**

Wall assembly	'U' Value – 0.14 btu./sq.ft.Hr.F OR $0.79 \text{ W/m}^2 \text{ } ^\circ\text{K}$ <i>Can be easily achieved by using 6" AAC blocks with lower thermal conductivity.</i>
Roof assembly	Roof insulation entirely above deck, 'U' Value – 0.275 btu./sq.ft.Hr.F OR $1.56 \text{ W/m}^2 \text{ } ^\circ\text{K}$ <i>Can be easily achieved by using 4" brick bat koba.</i> <i>This is will be further improved by provision of Solar PV Panel on roof top for Electricity generation</i>

High performance fenestration	'U' Value - 0.97 btu./sq.ft.Hr.F OR 5.5 W/m <sup>2</sup> °K S.H.G.C. - 0.56 V.L.T. - 51 % <i>Can be achieved by using Saint Gobain ST 150 6 mm high performance glass.</i>
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**Point No. 20:** Layout plan indicating Greenbelt along-with area earmarked to be provided.

**Compliance:** The layout showing landscaping and plantation is shown in the Figure No 11 below:

Figure No. 11: Landscape plan



**Table no 5. List of trees to be planted:**

	SCIENTIFIC NAME	COMMON NAME
1	<i>ALBIZIA LEBBECK</i>	SHIRISH
2	<i>ALSTONIA SCHOLARIS</i>	SAPTAPARN
3	<i>BAUHINEA PURPUREA</i>	KANCHAN
4	<i>ERYTHRINA INDICA</i>	PANGARA
5	<i>PONGAMIA PINNATA / GLABRA</i>	KARANJ.
6	<i>MIMOSUPS ELEGII</i>	BAKUL.
7	<i>PLUMERIA ALBA</i>	CHAPHA.
8	<i>ANTHOCEPHALLUS CADAMBA</i>	KADAMB
9	<i>ERYTHRINA INDICA</i>	PANGARA
10	<i>SYZGIUM CUMINI</i>	JAMBUL
11	<i>MURRAYA PANICULATA</i>	KUNTI
12	<i>COCUS NUCIFERA</i>	COCONUT
13	<i>SARACA INDICA</i>	SITA ASOKA
14	<i>DELONIX REGIA</i>	GULMOHOR
15	<i>TERMINALIA TOMENTOSA</i>	AIN
16	<i>ARECA CATECHU</i>	SUPARI
	TOTAL	