

**FORM-1**

**(I) Basic Information**

Sr. No	Item	Details								
1	Name of the Project	<b>SKYLINE-II</b>								
2	S. No. in the Schedule	8(a)								
3	Proposed capacity/area /length/tonnage to be handled/command area/lease area/ number of wells to be drilled	<table border="1"> <tr> <td>Plot Area.</td><td>12665.50 sq.m</td></tr> <tr> <td>FSI Area</td><td>16795.37 sq.m</td></tr> <tr> <td>Non-FSI Area</td><td>15759.99 sq.m</td></tr> <tr> <td>Total Construction Area</td><td><b>32554.96</b> sq.m</td></tr> </table>	Plot Area.	12665.50 sq.m	FSI Area	16795.37 sq.m	Non-FSI Area	15759.99 sq.m	Total Construction Area	<b>32554.96</b> sq.m
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FSI Area	16795.37 sq.m									
Non-FSI Area	15759.99 sq.m									
Total Construction Area	<b>32554.96</b> sq.m									
4	New/Expansion/Modernization	New								
5	Existing Capacity/Area etc.	Not Applicable								
6	Category of Project i.e. 'A' or 'B'	'B'								
7	Does it attract the general condition? If Yes, Please specify	Not Applicable								
8	Does it attract the specific condition? If yes, Please specify	Not Applicable								
9	Location									
	Plot/Survey/Khasra No.	Old Survey No. 216 New Survey No. 48 Hissa No. 2 Old Survey No. 221 New Survey No. 53 Hissa No. 2 Old Survey No. 222 New Survey 54 Hissa No. 2								
	Village	Penkarpada								
	Tehsil									
	District	Thane								
	State	Maharashtra								
10	Nearest railway station/airport along with distance in km.	Railway Station – Mira Road ( 1.5 km) Airport – Chhatrapati Shivaji International Airport								
11	Nearest Town, City, District Headquarters along with distance in km.	Mumbai								
12	Village Panchayats, ZillaParishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Mira Bhayander Municipal Corporation								
13	Name of the applicant	M/s Unique Neminath Developers LLP								
14	Registered Address	1 <sup>st</sup> Floor, Harsh Plaza Opp Sector-2 Shanti Nagar Mira Road (East) Thane 401107								
15	Address for correspondence:	1 <sup>st</sup> Floor, Harsh Plaza Opp Sector-2 Shanti Nagar Mira Road (East) Thane 401107								
	Name	Dilesh Shah (Partner) Kunal Doshi (Partner) Hemal Doshi (Partner)								

	Designation(Owner/Partner/CEO)	Partners
	Address	1 <sup>st</sup> Floor, Harsh Plaza Opp Sector-2 Shanti Nagar Mira Road (East) Thane 401107
	Pin Code	401107
	E-mail	uniqueshanti@gmail.com
	Telephone No.	022-28554441,28554442
	Fax No.	28125500
16	Details of Alternative Sites examined, If any. Location of these sites should be shown on a topo sheet	No
17	Interlinked Projects	No
18	Whether separate application of interlinked project has been submitted?	Not Applicable
19	If yes, date of submission	Not Applicable
20	If no, reason	Not Applicable
21	Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given. The Forest (Conservation) Act, 1980? The Wildlife (Protection) Act, 1972? The C.R.Z. Notification, 1991?	No
22	Whether there is any Government Order/Policy relevant/relating to the site?	No
23	Forest land involved (hectares)	No
24	Whether there is any litigation pending against the project and/or land in which the project is propose to be set up? Name of the Court/ Case No. / Orders /directions of the Court, if any and its Relevance with the proposed project.	No

*\* Capacity corresponding to sectorial activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area of mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.)*

**(II) Activity**

- 1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)**

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data		
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	<ul style="list-style-type: none"><li>No change in land use.</li><li>The developers have proposed residential Buildings. The land use will be Residence being the area developed as per DP of MBMC.</li><li>There shall be green area development plan to provide beautification and natural environment to the site</li></ul>		
1.2	Clearance of existing land, vegetation and building?	No	Not required.		
1.3	Creation of new land uses	No	Not envisaged.		
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Pre Feasibility studies, Geo-Technical investigations have been carried out.		
1.5	Construction Works?	Yes	<table><tr><td>Building type A</td><td>S + P + 17pt</td></tr></table>	Building type A	S + P + 17pt
			Building type A	S + P + 17pt	
			<table><tr><td>Building type B</td><td>S + P + 17pt</td></tr></table>	Building type B	S + P + 17pt
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<table><tr><td>Building type B-1</td><td>S + P + 17 pt</td></tr></table>	Building type B-1	S + P + 17 pt			
Building type B-1	S + P + 17 pt				
			Total constructed area: 25660.57 sq.m		
1.6	Démolition Works?	No	--		
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	<ul style="list-style-type: none"><li>During the construction phase about 50 Labors will be provided with temporary housing facilities.</li><li>The site will have temporary sheds during construction phase, which will be later dismantled.</li></ul>		
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations.	Yes	<ul style="list-style-type: none"><li>The above ground structures will comprise 3 Residential buildings.</li></ul> Maximum height of the proposed project: 55.4 m		
1.9	Underground works including mining or tunneling?	No	No underground works including mining / Tunneling is required except minor activities like excavation of earth only for foundation, lay down of pipes, underground storage tank, electric cables, soak pits, septic tanks etc.		
1.10	Reclamation works?	No	--		
1.11	Dredging?	No	--		
1.12	Offshore structures?	No	--		
1.13	Production and manufacturing Process?	No	--		

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data																
1.14	Facilities for storage of goods or materials?	Yes	<p>Separate raw material storage yard will be made, which will be temporary.</p> <p><b>Construction Phase:</b></p> <ul style="list-style-type: none"> <li>• Cement will be separately stored under cover in bales.</li> <li>• Sand will be stacked neatly under tarpaulin cover.</li> <li>• Bricks and steel will be laid in open.</li> </ul> <p><b>Operation Phase:</b></p> <p>Storage area for solid waste, Manure and Sludge will be provided.</p>																
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p><b>Construction Phase:</b></p> <p>During the construction phase septic tanks will be provided for waste water management from construction laborers. Temporary sanitary toilets will be provided.</p> <p><b>Operation Phase:</b></p> <table border="1"> <thead> <tr> <th>Particulars</th><th>Biodegradable waste</th><th>Non-Biodegradable waste</th><th>Total solid wastes</th></tr> </thead> <tbody> <tr> <td>Residential</td><td>533</td><td>355</td><td>888</td></tr> </tbody> </table> <p><b>Waste Management (quantity in kg/day)</b></p> <p><b>Treatment &amp; Disposal :</b></p> <ul style="list-style-type: none"> <li>• The waste will be stored in segregated form in different bins with color code system.</li> <li>• The biodegradable waste will be processed in OWC.</li> <li>• Maximum requirement of manure for gardening will be used.</li> <li>• Non- Biodegradable waste will be handed over to recyclers.</li> </ul> <p><b>Waste water</b></p> <ul style="list-style-type: none"> <li>• Sludge Quantity (dry): 12</li> <li>• 216 KLD wastewater will be generated.</li> </ul> <table border="1"> <thead> <tr> <th></th><th>Particulars</th><th>Flushing</th><th>Landscaping</th></tr> </thead> <tbody> <tr> <td></td><td>Residential</td><td>80 KLD</td><td>16KLD</td></tr> </tbody> </table>	Particulars	Biodegradable waste	Non-Biodegradable waste	Total solid wastes	Residential	533	355	888		Particulars	Flushing	Landscaping		Residential	80 KLD	16KLD
Particulars	Biodegradable waste	Non-Biodegradable waste	Total solid wastes																
Residential	533	355	888																
	Particulars	Flushing	Landscaping																
	Residential	80 KLD	16KLD																
1.16	Facilities for long term housing of operational workers?	No	-----																
1.17	New road, rail or sea traffic	No	There will be no new road and rail.																

<b>Sr. No.</b>	<b>Information/Checklist Confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>
	during construction of operation?		
1.18	New road, rail, air, waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc.?	No	No new Rail/road is required. The entire essential infrastructure already exists.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	There will be no diversion or closure of the existing transport routes and infrastructure.
1.20	New or diverted transmission lines or pipelines?	Yes	There will be no diversion of electrical transmission line. But the project involves construction of new internal pipelines for freshwater, recycled water, rain water harvesting, sewer lines and internal power distribution lines.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	No impoundment, damming, culverting, realignment or other changes to the hydrology of surface water courses is proposed.
1.22	Stream crossings?	No	---
1.23	Abstraction or transfers of water from ground or surface waters?	No	Water requirement in construction phase will be supplied from tanker (20 KLD). Total water requirement 240 KLD will be met from MBMC.
1.24	Changes in water bodies or the land surface affecting drainage or run-off.	No	The project location is in well developed urbanized area. SWD network is available around the project. SWD network designed for project shall be connected to the SWD provided by corporation. This will be in line with the natural drainage pattern of area and the same shall be approved by corporation.
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	The D.P. road near by the site will be utilized for the transportation of material and personal.
1.26	Long-term dismantling or decommissioning or restoration works?	No	----
1.27	Ongoing activity during decommissioning which could have an impact on the	No	----

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
	environment?		
1.28	Influx of people to an area in either temporarily or permanently?	Yes	<p><b>Construction Phase:</b> Around 100 labors will come to site during peak construction phase. 50 shall be provided with temporary housing facilities.</p> <p><b>Operation Phase:</b> On completion of the project, there will be regular movement of residents, visitors, staff and related personals. Total population is expected to be 1770 Nos. In addition to this, there will be visitors.</p>
1.29	Introduction of alien species?	No	Indigenous species will be planted.
1.30	Loss of native species or genetic diversity?	No	There are trees within the plot. RG area provided for the project is 3294.64 sqm.
1.31	Any other actions?	No	Not applicable

**2. Use of Natural resources for construction or operation of project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply).**

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data								
2.1	Land specially undeveloped or agricultural land (ha)	No	Agricultural land not involved.								
2.2	Water (expected source & competing users) unit KLD	Yes	<p><b>Construction Phase:</b> It is expected to house about 50 workers. 50 labours at site. construction 20 KLD</p> <p>The water demand will be met by water tankers.</p> <table border="1"> <tr> <th>Particulars</th><th>Domestic</th><th>Flushing</th><th>Gardening</th></tr> <tr> <td>Total water demand is 240 KLD</td><td>160 KLD</td><td>80 KLD</td><td>16 KLD</td></tr> </table> <p>Water requirement will be met by MBMC.</p>	Particulars	Domestic	Flushing	Gardening	Total water demand is 240 KLD	160 KLD	80 KLD	16 KLD
Particulars	Domestic	Flushing	Gardening								
Total water demand is 240 KLD	160 KLD	80 KLD	16 KLD								
2.3	Minerals (MT)	No	--								
2.4	Construction material – stone, aggregates, and/soil (expected source-MT)	Yes	The construction materials will be procured from local dealer.								
2.5	Forests and timber (source-MT)	No	--								
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (KW)	Yes	<p>Connected load – 5948KW</p> <p>Demand load – 1931 KW</p> <p>Source: RELIANCE</p> <p>DG set: 3 x 320 KVA</p>								
2.7	Any other natural resources (use appropriate standard units)	No	--								

**3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health**

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	----

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	During the construction phase adequate precaution will be taken to avoid stagnation of water giving rise to mosquito breeding. During operation phase, wastewater generated to is 216 KLD & will be treated in 2 STP's having total capacity of 229 KLD. Further, storm water network will be well designed to leave no stagnant water pockets.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	Project will provide well planned residential infrastructure to the existing tenements. And increase the aesthetic appeal of the surroundings. EMP shall be implemented during construction and operation phase to mitigate the impacts on surrounding locality.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	There are school and hospitals within 1000 m radius area of the project. However, traffic planning and waste management during construction phase shall mitigate the adverse effect, if any.
3.5	Any other causes	No	--

**4. Production of solid wastes during construction or operation or decommissioning (MT/month)**

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data		
4.1	Spoil, overburden or mine wastes	Yes	Overburden and mine waste shall not be generated; however, excavation will generate soil which shall be managed within site only to the possible extent and excess shall be sent to dedicated site for dumping as per permissions from local body.		
4.2	Municipal waste (domestic and or commercial wastes)	Yes			
			Type of waste	Qty (Kg/Day) Residential & Commercial	Management
			Biodegradable waste	533	To be treated in OWC and manure so obtained shall be used for



Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data			
					landscaping.	
			Non-Biodegradable waste	355	To be handed over to local recyclers.	
			Total solid wastes (Residential & Commercial)	888	--	
4.3	Hazardous wastes (as per hazardous waste management rules)	Yes	Used oil from DG set will be stored at isolated location duly marked.			
4.4	Other industrial process wastes	No	Not Applicable			
4.5	Surplus product	No	Not Applicable			
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Dewatered sludge from STP will be used as manure for gardening.			
4.7	Construction or demolition wastes	Yes	Construction waste will be used within project only. Unusable and excess construction debris will be disposed at designated places as per local permission.			
4.8	Redundant machinery or equipment	No	There will not be any redundant machinery or equipment at site. All equipment's used for construction will be of standard quality and maintained on regular basis.			
4.9	Contaminated soils or other materials	Yes	During painting, spillage of oil, diesel.			
4.10	Agricultural wastes	No	Not Applicable			
4.11	Other solid wastes	No	Only Municipal solid waste will be generated.			

#### 5. Release of pollutants or any hazardous, toxic or noxious substances to air (kg/hr)

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	<ul style="list-style-type: none"> <li>Emission will be generated from vehicular transport to the project.</li> <li>Standby DG set will emit air pollutants (PM, SO<sub>2</sub> and NO<sub>x</sub>). DG set shall be installed as per CPCB guidelines and manufacturers instruction to keep the emissions within limits of CPCB.</li> </ul>

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
			Stack height shall be provided as per CPCB guideline for adequate dispersion of released pollutant and to have negligible GLCs in the surrounding area.
5.2	Emission from production processes	No	There is no production as the proposed project is residential Building.
5.3	Emissions from materials handling including storage or transport	Yes	<ul style="list-style-type: none"> <li>• Emissions will be generated, while handling and transportation of materials like cement, sand etc. to site, will be temporary in nature.</li> <li>• RMC shall be used preferably to reduce fugitive emissions due to material handling.</li> <li>• Regular water sprinkling shall be done to reduce dust generation</li> <li>• Transportation shall be done in covered trucks.</li> </ul>
5.4	Emissions from construction activities including plant and equipment	Yes	<p>The project may cause rise in dust level during construction phase. Precautions will be taken to reduce dust generation during construction phase.</p> <ul style="list-style-type: none"> <li>• RMC use will eliminate the handling of cement, sand and concrete thus dust emission will be minimized.</li> <li>• Tarpaulins will be used to cover trucks carrying debris.</li> <li>• Water sprinkling will be done at regular intervals to reduce dust generation.</li> </ul>
5.5	Dust or odors from handling of materials including construction materials, sewage and waste	Yes	<p><b>Dust emission during construction:</b></p> <ul style="list-style-type: none"> <li>• RMC use will eliminate the handling of cement, sand and concrete thus dust emission will be minimized.</li> <li>• Tarpaulins will be used to cover trucks carrying debris.</li> <li>• Water sprinkling will be done at regular intervals to reduce dust generation.</li> </ul> <p><b>During operation phase,</b> municipal solid waste shall be treated in OWC to produce manure. Sewage shall be treated in established technology like MBBR.</p>
5.6	Emissions from incineration of waste	No	Not Applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials,	No	No such practices shall be entertained

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
	construction debris)		
5.8	Emissions from any other sources	No	Not envisaged.

**6. Generation of Noise and vibration, and emissions of Light and heat.**

Sr. No.	Information/ Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Noise generation from construction equipment's used for drilling, cutting operations. During Operation Phase, Noise will be generated due to operation of DG sets. For control of noise following measures shall be adopted: <ul style="list-style-type: none"> <li>• Equipments shall be regularly maintained</li> <li>• High noise generating construction activities would be carried out only during day time.</li> <li>• PPEs shall be provided to construction workers.</li> <li>• Acoustic enclosure for DG Set with proper stack height will be provided.</li> </ul>
6.2	From industrial or similar processes	No	Not Applicable
6.3	From construction or demolition	Yes	The construction activities will include the following noise generating activities; <ol style="list-style-type: none"> <li>1. Excavation activities etc.</li> <li>2. Concreting and mixing.</li> <li>3. Heavy vehicle movement.</li> </ol> Following precautions shall be taken to control noise pollution : <ul style="list-style-type: none"> <li>• High noise generating activities shall be carried out during day time only.</li> <li>• Workers working near high noise machinery would be provided with ear muffs/ear plugs.</li> <li>• Acoustic enclosure for DG Set will be provided.</li> </ul>
6.4	From blasting or piling	No	Not Applicable
6.5	From construction or operational traffic	Yes	<b>Construction phase:</b> There will be transport of materials for construction work. Precautions will be taken to

Sr. No.	Information/ Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
			reduce the impact of the vehicular movement such as vehicular trips will not be at peak traffic hours. <b>Operation Phase :</b> Native species will be used for plantation which will help to reduce the impact of air and noise pollution.
6.6	From lighting or cooling systems	No	Not Applicable
6.7	From any other sources	No	Not Applicable

**7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea**

Sr. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	Not Applicable
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	The total wastewater generated 216 KLD.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Dust generated during construction phase will be contained locally within site only. Same shall be controlled by barricades. Stack shall be provided to DG set with height as per CPCB norm.
7.4	From any other sources	No	Not envisaged
7.5	Is there a risk of long term buildup of pollutants in the environment from these sources?	No	Not envisaged

**8. Risk of accidents during construction or operation of the project, which could affect human health or the environment**

<b>Sr. No.</b>	<b>Information/Checklist Confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	During construction all construction workers will be provided with suitable Personal Protective Equipment as required under the health & safety norms. Suitable firefighting measures will be provided to reduce chances of fire-accidents.
8.2	From any other causes	No	--
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, could burst etc)?	Yes	This area falls under seismic zone –III according to Indian Standard Seismic zoning map.

**9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality**

<b>Sr. No.</b>	<b>Information/Checklist Confirmation</b>	<b>Yes/ No</b>	<b>Details thereof (with approximate quantities/ rates, wherever possible) with source of information data</b>
9.1	Lead to development of supporting, utilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.:  Supporting infrastructure (roads, power supply, waste or waste water treatment, etc)  Housing development  Extractive industries  Supply industries Other	  Yes  Yes  No  No	  Internal Roads, Rainwater Harvesting, STP etc. will be provided.  Residential Project
9.2	Lead to after use of the site, which could have an impact on the environment	No	--
9.3	Set a precedent for later developments	Yes	Commercial development related to the project.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Not Applicable.

**(iii) Environmental Sensitivity**

Sr. No.	Areas	Name/ Identity	Aerial distance (with 15-km) Proposed project location boundary		
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	--		
2	Areas which are important or sensitive of ecological reasons – wetlands, water courses or other water bodies, coastal zone, biospheres, mountains, forests	No	--		
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration.	No	--		
4	Inland, coastal, marine or underground waters	No	--		
5	State, national boundaries	No	--		
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	--		
7	Defense installations	No	---		
8	Densely populated or built-up area	Yes	Residential, Commercial and Industrial area all around the site.		
9	Areas occupied by sensitive man made land uses ( <i>hospitals, schools, places of worship, community facilities</i> )	Yes		Name	Distance from project
			Nearest Hospital	Bhaktivedanta Hospital	1 km
			Nearest School	St Xavier High School	Next to the project
			Nearest College	Royal College	1 km
			Nearest market	Asmita Super Market	1 km
10	Areas containing important, high quality or scarce resources ( <i>ground water resource, surface resources, forestry, agriculture, fisheries, tourism, minerals</i> )	Yes	The project will tap water from MBMC for its use after proper permissions are obtained. .		

Sr. No.	Areas	Name/ Identity	Aerial distance (with 15-km) Proposed project location boundary
11	Areas already subjected to pollution or environmental damage. <i>(those where existing legal environmental standards are exceeded)</i>	No	The area is not notified as polluted area.
12	Areas susceptible to natural hazard which could cause the project to present environmental problems <i>(earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)</i>	No	This area falls under seismic zone –III according to Indian Standard Seismic zoning map.

"I hereby give undertaking that the data and information given in the application and enclosures are true and to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost".

Signature of the Applicant with Name and Full Address

Mr. Dilesh C. Shah

A handwritten signature in black ink, appearing to read 'Dilesh C. Shah', with a stylized flourish at the end.

(Authorised Signatory)

M/s. Unique Shanti Neminath Developers LLP  
Harsh Plaza, 1<sup>st</sup> Floor, Opp. Sector 2,  
Mira Road (E), Thane – 401 107

Date:

Place: Mumbai



**FORM-1A****(Only for Construction Projects listed under Item 8 of Schedule)****Checklist of Environmental Impacts****1. Land Environment (Attach panoramic view of the project site & the vicinity)**

Requirement	Compliance																		
<b>1.1.</b> Will the existing land use get significantly altered from the project that is not consistent with the surroundings? (Proposed land use must conform to the approved Master Plan/Development Plan of the area. Change of land use if any and the statutory approval from the competent authority are submitted). Attach Maps of (i) site location, (ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels & contours) to appropriate scales.	<p>1. The proposed project <b>is a Residential building.</b></p> <p>2. The land use of the project site is residential as per development plan and it's a residential cum commercial project.</p> <p><b>Enclosed maps:</b></p> <p>(i) Google Image</p> <p>(ii) Project Layout</p>																		
<b>1.2.</b> List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs etc.	<table border="1"> <tr> <td colspan="2"><b>Area Statement :</b></td></tr> <tr> <td>Plot Area</td><td>12,665.50 m<sup>2</sup></td></tr> <tr> <td>FSI Area</td><td>16,795.37m<sup>2</sup></td></tr> <tr> <td>Non-FSI Area</td><td>15,759.59 m<sup>2</sup></td></tr> <tr> <td>Total Construction Area</td><td>32,554.96 m<sup>2</sup></td></tr> <tr> <td>R.G Area</td><td>3,294.64 m<sup>2</sup></td></tr> </table> <p><b>Parking Statement:</b></p> <p>4-Wheeler: 248 Nos.</p> <p><b>Occupancy Load:</b> 1775 No's.</p> <p><b>Water requirement :</b></p> <p>Operation Phase: 240 KLD; Source: MBMC</p> <table border="1"> <tr> <td>Domestic</td><td>160 KLD</td></tr> <tr> <td>Flushing</td><td>80 KLD</td></tr> <tr> <td>Gardening</td><td>16 KLD</td></tr> </table>	<b>Area Statement :</b>		Plot Area	12,665.50 m <sup>2</sup>	FSI Area	16,795.37m <sup>2</sup>	Non-FSI Area	15,759.59 m <sup>2</sup>	Total Construction Area	32,554.96 m <sup>2</sup>	R.G Area	3,294.64 m <sup>2</sup>	Domestic	160 KLD	Flushing	80 KLD	Gardening	16 KLD
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<b>1.3.</b> What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing land use, disturbance to the local ecology)	<p>The proposed project consists of 3 Nos. of Residential Buildings.</p> <p>Open spaces and recreation areas as required by DCR are provided for development of land.</p> <p>Development is in line with the local development plan.</p> <p>The said project is a residential project Therefore, disturbance of ecology by disturbing land or flora/fauna is not involved.</p>																		
<b>1.4.</b> Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis,	<p>There will be no significant land disturbance due to the project. The existing terrain is more or less plain .This area come under seismic zone –III according to</p>																		

vulnerability to subsidence, seismicity etc may be given).	Indian Standard Seismic zoning map	
<b>1.5.</b> Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)	Natural Drainage System will not be altered.	
<b>1.6.</b> What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site etc)	Minimum earthwork will be involved in the project and the excess quantity will be disposed as per Debris Management Plan.	
	<b>WASTE</b>	<b>MANAGEMENT</b>
	Cement Bags	Returned back to vendor or sold to recycler.
	Paint container & other Barrels	Will be sold for reuse.
	Solid block debris	Reused on the site to construct safety walls and backfilling below roads.
	Scrap metal generated	100 % will be sold for recycling
	Concrete waste	The balance /waste concrete of higher grade will be diverted to the lower grade PCC of podium areas.
	Sand	Wastage of sand will be used for bedding for flooring purpose. Also will be used as filler material for toilets water proofing.
	Tiles waste	Waste tiles will be cut & will be used for skirting. Broken pieces will be used for china mosaic waterproofing of terraces.
	Glass	Will be sold for recycling.
	Wooden waste	Will be sold for recycling.
	Electrical wires and cables	Will be sold for recycling.
	Pipes	Will be sold for recycling.

<b>1.7.</b> Give details regarding water supply, waste handling etc. during the construction period.	<p><b>Construction phase:</b> It is expected to house about 100 labours at site;</p> <p>Total water requirement :</p> <table border="1" data-bbox="759 297 1337 387"> <tr> <td>Workers</td><td>5 KLD</td></tr> <tr> <td>Construction</td><td>20 KLD</td></tr> </table> <p>SOURCE : Tanker (Depending upon construction activity)</p>	Workers	5 KLD	Construction	20 KLD
Workers	5 KLD				
Construction	20 KLD				
<b>1.8.</b> Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)	<p>No low lying areas and wetlands are getting modified from the proposed activity</p>				
<b>1.9.</b> Whether construction debris & waste during construction cause health hazards? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)	<p>The construction debris will include sand, soil bricks and tiles. All this material will be utilized on the same site, Unusable and excess construction debris will be disposed at designated places as per local permission. No hazardous waste is involved. During the construction phase septic tanks will be provided for waste water management from construction laborers. Temporary sanitary toilets will be provided</p>				

## 2.water

Requirement	Compliance														
<b>2.1.</b> Give the total quantity of water requirement for the proposed project with the break-up of requirements for various uses. How will the water requirements met? State the sources & quantities and furnish a water balance statement.	<table border="1" data-bbox="759 1218 1401 1444"> <tr> <td>Total water requirement</td><td>240 KLD</td></tr> <tr> <td>Domestic usage</td><td>160KLD</td></tr> <tr> <td>Flushing</td><td>80 KLD</td></tr> <tr> <td>Gardening</td><td>16 KLD</td></tr> </table> <p>Source: MBMC /Recycled Water</p> <p>Sewage Generation:</p> <table border="1" data-bbox="759 1588 1458 1785"> <tr> <th>Description</th><th>Quantity of Sewage generated KLD</th></tr> <tr> <td>Construction phase</td><td>2 KLD</td></tr> <tr> <td>Operational Phase</td><td>216 KLD</td></tr> </table>	Total water requirement	240 KLD	Domestic usage	160KLD	Flushing	80 KLD	Gardening	16 KLD	Description	Quantity of Sewage generated KLD	Construction phase	2 KLD	Operational Phase	216 KLD
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Operational Phase	216 KLD														
<b>2.2.</b> What is the capacity (dependable flow or yield) of the proposed source of water?	<p>Water supply and capacity of the project will be dependent on MBMC/recycled water.</p>														
<b>2.3.</b> What is the quality of water required, in case, the supply is not from a municipal	<p>Since this projects fall under the jurisdiction of municipal corporation the Water will be supplied from</p>														

source? (Provide physical, chemical, biological characteristics with class of water quality)	MBMC/ Recycled water.																											
2.4. How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)	Total Recycled water 96 KLD will be used at maximum extent for ; <table><tr><td>Flushing</td><td>80 KLD</td></tr><tr><td>Gardening</td><td>16 KLD</td></tr></table>				Flushing	80 KLD	Gardening	16 KLD																				
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2.5. Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)	NA																											
2.6. What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)	The sewage generation from the proposed project will be 216 KLD. Expected Characteristics of Raw Sewage Untreated sewage Characteristics: <table><tr><td>Sr. No.</td><td>Parameter</td><td>Unit</td><td>Raw sewage</td></tr><tr><td>1</td><td>pH</td><td>--</td><td>6.5 – 7.5</td></tr><tr><td>2</td><td>BOD 3 days at 270 C</td><td></td><td>200 – 400 mg/l</td></tr><tr><td>3</td><td>COD</td><td>mg/l</td><td>600 – 700 mg/l</td></tr><tr><td>4</td><td>Suspended Solids</td><td>mg/l</td><td>150 – 200 mg/l</td></tr><tr><td>5</td><td>Oil &amp; Grease</td><td>mg/l</td><td>50 mg/l</td></tr></table>				Sr. No.	Parameter	Unit	Raw sewage	1	pH	--	6.5 – 7.5	2	BOD 3 days at 270 C		200 – 400 mg/l	3	COD	mg/l	600 – 700 mg/l	4	Suspended Solids	mg/l	150 – 200 mg/l	5	Oil & Grease	mg/l	50 mg/l
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2.7. Give details of the water requirements met from water harvesting? Furnish details of the facilities created.	Rainwater from the roofs will be lead to storage tanks.																											
2.8. What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (Quantitative as well as qualitative) of the area in the post construction phase on a long term basis?	The run-offs will be channelized properly through storm water drain and will be diverted to recharging pits. The overflow of this pit will be diverted to the storm water drain. Management plan for Flood is as follows :																											

Would it aggravate the problems of flooding or water logging in any way?	<ul style="list-style-type: none"> <li>• Storm water drain shall be cleaned at regular interval.</li> <li>• Dewatering pumps shall be installed at vulnerable locations.</li> </ul>
<b>2.9.</b> What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)	There will be no ground water extraction. The rain water collected from RWH tanks as well as the recycled water used for flushing and gardening will help meet the needs
<b>2.10.</b> What precautions/measures are taken to prevent the run-off from construction activities polluting land and aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)	<p>The run-off during construction phase is expected to carry heavy amount of silt and the other material from the site this will be managed through :</p> <ul style="list-style-type: none"> <li>• Construction material will be stored and covered with a temporary shed ensuring that no leachates occur.</li> <li>• The rain water entering into the pit will be screened for the removal of heavy silt and other materials.</li> <li>• Not mixing mortar in locations that will drain into storm water system.</li> <li>• Stabilizing a single entry/exit point to ensure sediment is not tracked off site</li> </ul>
<b>2.11.</b> How is the storm water from within the site managed? (State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)	Storm water drain of adequate size will be provided to manage storm water from within the site and rainwater harvesting Tank will be developed.
<b>2.12.</b> Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)	During construction phase the sewage generated will be around 2 KLD and will be treated in septic tank and soak pit. Temporary toilets will be provided. Adequate housekeeping practices will be maintained.
<b>2.13.</b> What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of	Total waste water generated (216 KLD) will be treated in 2 STP's having total capacity of 229 KLD. Treated water will be recycled & excess will be diverted to the

wastewater generation, treatment capacities with technology & facilities for recycling and disposal)	municipal sewer line.
<b>2.14.</b> Give details of dual plumbing system if treated wastewater is used for flushing of toilets or any other use.	Not Applicable

## 2. Vegetation

Requirement	Compliance
<b>3.1.</b> Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any)	The project site is surrounded by developed roads. The local ecosystem and biodiversity will not be hampered because of this development.
<b>3.2.</b> Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)	The construction will not involve any extensive vegetation clearing. The project has a Total Green Area: 3294.64 sqm which add to the vegetation. Native species trees will be planted as well.
<b>3.3.</b> What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc. along with a layout plan to an appropriate scale)	Due care will be taken to protect the important site features: <ul style="list-style-type: none"> <li>• Tree plantation will be done to protect the site from topsoil erosion</li> <li>• Piling will be done so as to minimize the impacts on the existing structures in the nearby areas.</li> <li>• 171 No's of trees are to be planted</li> </ul>

## 4. Fauna

Requirement	Compliance
<b>4.1.</b> Is there likely to be any displacement of fauna – both terrestrial and aquatic or creation of barriers for their movement? Provide the details.	There will be no displacement of fauna - both terrestrial and aquatic and there will be no barrier in their movement. There is no endangered species found except the local species.
<b>4.2.</b> Any direct or indirect impacts on the avifauna of the area? Provide details.	There will be no impact on the avifauna (birds) of the area. The trees planted may attract birds in the future

	creating a positive impact on the avifauna.
<b>4.3.</b> Prescribe measures such as corridors, fish ladders etc. to mitigate adverse impacts on fauna.	The project is located on landmass and there is no need to provide corridors and fish ladders etc.

## 5. Air Environment

Requirement	Compliance
<b>5.1.</b> Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)	Air emissions will increase due to vehicular movements which will be minimised by using local vendors and labourers to reduce the traffic
<b>5.2.</b> What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.	Dust emission during construction: <ul style="list-style-type: none"> <li>• RMC use will eliminate the handling of cement, sand and concrete thus dust emission will be minimized.</li> <li>• Tarpaulins will be used to cover trucks carrying debris.</li> <li>• Water sprinkling will be done at regular intervals to reduce dust generation.</li> <li>• Net lawn will be used during construction for prevention of dust emission</li> </ul>
<b>5.3.</b> Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry and exit to the project site.	<ul style="list-style-type: none"> <li>• The proposed project will provide sufficient parking to its occupants and visitors.</li> <li>• Necessary arrangements will be made for smooth entry and exit of vehicles.</li> </ul> PARKING: 248 nos
<b>5.4.</b> Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.	Adequate provisions have been made in the internal roads, for smooth vehicles entry and exit and as well as pedestrian movements.

<b>5.5.</b> Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.	<ul style="list-style-type: none"> <li>• During construction activity vehicular movement will be the major source. The mitigation is proposed through a detailed EMP</li> <li>• Necessary arrangements will be made for smooth entry and exit of vehicles</li> </ul>
<b>5.6.</b> What will be the impact of D.G. sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.	D.G. set will create no noise due to vibration as sound proof canopy will be provided. Acoustic enclosure will be provided with proper stack height as per the norms

## 6. Aesthetics

Requirement	Compliance
<b>6.1.</b> Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?	The proposed construction activity will not result in the obstructions of a view, scenic amenity or landscapes. Better designed structure and well planned landscape will add up aesthetics of that zone.
<b>6.2.</b> Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?	<p>There will be negligible adverse impact due to new constructions on the existing structures. Control measures taken to minimize the impacts on surroundings:</p> <ul style="list-style-type: none"> <li>• Drilling machines used for piling activities will be of rig type which will help to avoid hammering clutter and knocking noises.</li> <li>• The construction site will be covered from all 4 sides with tin sheets</li> <li>• The setbacks are sufficient to take care of the depth to which the structure goes without the fear of soil collapse in addition to piling.</li> </ul>
<b>6.3.</b> Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.	The design of the project is influenced by the regulation set out by local authority and modern needs of the society.



<b>6.4.</b> Are there any anthropological or archaeological sites or artefacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.	There are no anthropological or archaeological sites or artefacts nearby proposed site.
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## 7. Socio-Economic Aspects

Requirement	Compliance
<b>7.1.</b> Will the proposal result in any changes to the demographic structure of local population? Provide the details.	There will be no change to the demographic structure of local population due to the proposed activity. The expected population will be 1770 No's. The proposed project shall provide value addition to the existing infrastructure; it shall bring an up gradation in and around the project premises.
<b>7.2.</b> Give details of the existing social infrastructure around the proposed project.	Proposed project is located within the residential zone of high urban infrastructure region. It is a well-developed area, having all modern amenities. Civil structures, School, Colleges, Hospitals, Recreation facilities, Markets, etc. are available in the area.
<b>7.3.</b> Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?	The proposed project will not cause any adverse effects on local communities, disturbance to sacred sites or other cultural values.

## 8. Building Materials

Requirement	Compliance
<b>8.1.</b> May involve the use of building materials with high-embodies energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)	<ul style="list-style-type: none"> <li>• The basic engineering materials like aggregate, cement, sand and bricks/blocks will be purchased locally. However, finishing materials will have energy conservation measures in the selection of building materials and their energy efficiency.</li> <li>• Cement shall be used which already contains Fly ash.</li> </ul>
<b>8.2.</b> Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?	<p>Noise generation from construction equipment's used for drilling, cutting operations.</p> <p>During Operation Phase, Noise will be generated due to operation of DG sets.</p> <p>For control of noise following measures shall be adopted:</p> <ul style="list-style-type: none"> <li>• Equipments shall be regularly maintained</li> <li>• High noise generating construction activities would be carried out only during day time.</li> <li>• PPEs shall be provided to construction workers.</li> <li>• Acoustic enclosure for DG Set with proper stack height will be provided</li> <li>• To reduce air emissions:</li> <li>• All vehicles will be having proper PUC certificates.</li> <li>• Roads will be paved in advance to reduce dust emissions.</li> <li>• Unpaved roads will be kept wet.</li> <li>• Construction machinery will be regularly maintained.</li> </ul>
<b>8.3.</b> Are recycled materials used in roads and structures? State the extent of savings achieved?	Yes. Inert demolished material will be used in road filling to maximum extent

<p><b>8.4.</b> Give details of the methods of collection, segregation &amp; disposal of the garbage generated during the operation phases of the project.</p>	<p>The solid waste management facility will be proposed as per MSW rules. The garbage collected from area will be segregated into wet and dry garbage.</p> <p><b>Operation Phase:</b></p> <table><tr><th></th><th>Biodegradable (Kg/day)</th><th>Non Biodegradable (kg/day)</th><th>Total Solid waste (kg/day)</th></tr><tr><td>Residential</td><td>533</td><td>355</td><td>888</td></tr></table> <p><b>Treatment &amp; Disposal :</b></p> <ul style="list-style-type: none"><li>• The biodegradable waste will be processed in OWC.</li><li>• Maximum requirement of manure for gardening will be used.</li><li>• Non- Biodegradable waste will be handed over to MBMC.</li><li>• Sludge Quantity (dry): 12</li></ul>		Biodegradable (Kg/day)	Non Biodegradable (kg/day)	Total Solid waste (kg/day)	Residential	533	355	888
	Biodegradable (Kg/day)	Non Biodegradable (kg/day)	Total Solid waste (kg/day)						
Residential	533	355	888						

## 9. Energy Conservation

Requirement	Compliance
<p><b>9.1.</b> Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of build-up area? How have you tried to minimize energy consumption?</p>	<p>Power requirement:</p> <p>(a) Construction Phase – 50 KW</p> <p>(b) Operation Phase –</p> <p>Connected Load: 5,948.45 KW</p> <p>Maximum Load: 1,931.54 KW</p> <p>Source: RELIANCE</p> <p>To minimize the energy consumption, solar energy will be utilized as much as possible.</p> <p>Energy conservation measures :</p> <ul style="list-style-type: none"> <li>• Promoting use of solar energy.</li> <li>• Purchase of energy efficient appliances.</li> <li>• Constant monitoring of energy consumption and defining targets for</li> </ul>

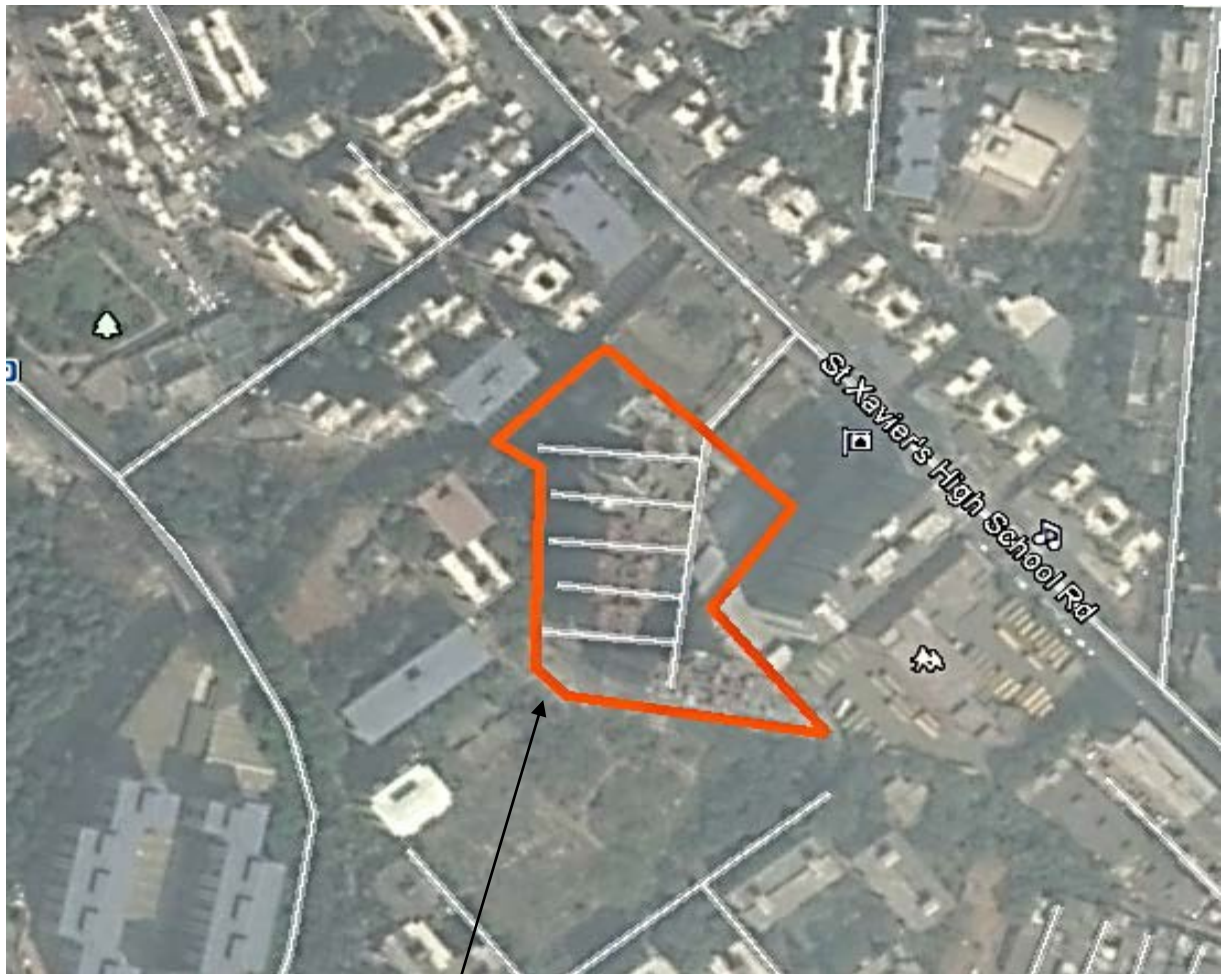
	<p>energy conservation.</p> <ul style="list-style-type: none"> <li>• Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort levels.</li> <li>• Use of compact fluorescent lamps and low voltage lighting.</li> <li>• Sunscreen films on windows to reduce heating inside the buildings.</li> </ul>
<b>9.2.</b> What type of, and capacity of, power back-up to you plan to provide?	3 no of DG Set of 320 KVA capacities is proposed as backup during power failure. HSD will be used as fuel to run standby D.G. sets.
<b>9.3.</b> What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?	Glass used for buildings and residences will be plain clear glass.
<b>9.4.</b> What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.	Building orientation, wall to window ratio and thermal properties of envelop are being looked into reduce solar heat gain and provide natural light and adequate ventilation to reduce humidity.
<b>9.5.</b> Does the layout of streets and buildings maximize the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex?	Yes. Solar lights will be provided for common amenities.
<b>9.6.</b> Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and West and the Roof? How much energy saving has been effected?	Depending upon the site condition location, efforts will be made to maximize the shading of walls.
<b>9.7.</b> Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the	Most of the electrical installations and structures will be energy efficient.

transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.	
<b>9.8.</b> What are the likely effects of the building activity in altering the microclimates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat islands & inversion effects?	There will not be any effect of the building activity in altering the microclimates particularly creation of heat islands & inversion effects.
<b>9.9.</b> What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) Fenestration? Give details of the material used and the U-values or the R-values of the individual components	Roof will be of high quality concrete as per the NBC rules 2005.
<b>9.10.</b> What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.	Standard fire safety norms will be followed as per the government norms. Refuge area will be provided as per norms.
<b>9.11.</b> If you are using glass as wall material, provide details and specifications including emissivity and thermal characteristics.	No glass will be used for walls.
<b>9.12.</b> What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.	Proper ventilation will be providing in rooms. Air changes/hour is as per Bureau of Indian Standards (National Building Code, 2005).
<b>9.13.</b> To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.	Every effort will be made to generate and use non-conventional energy and renewable energy, depending upon the circumstances and chances of generating energy.

## **ENVIRONMENT MANAGEMENT PLAN**

The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.

**Annexure – I**  
**GOOGLE IMAGE**

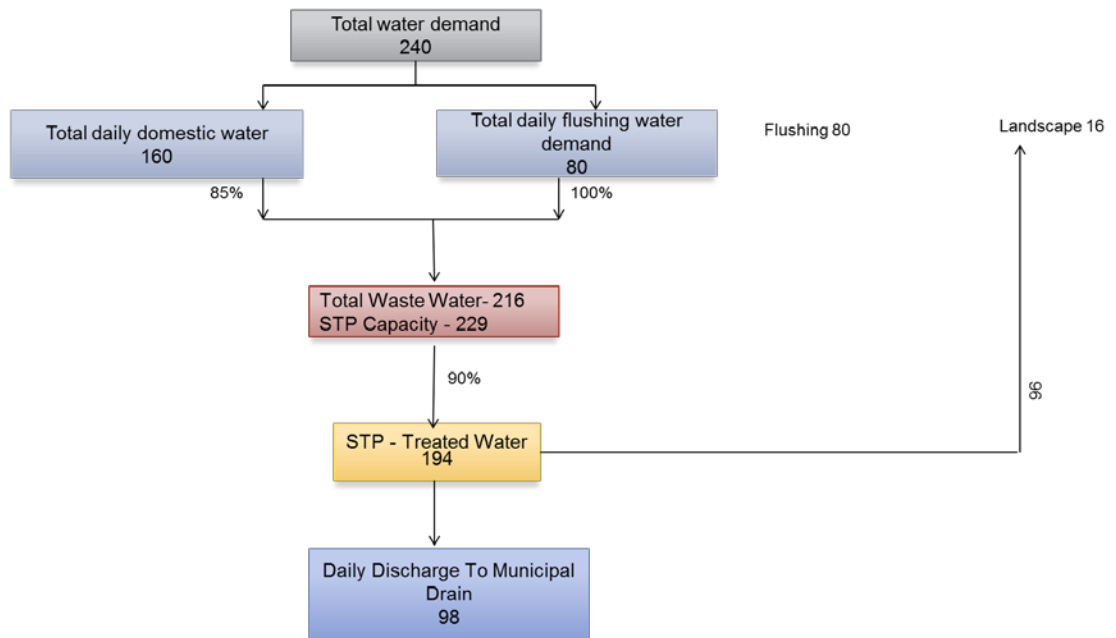


PROJECT SITE

[illegible]



Annexure – III  
Water Balance – Dry season



Annexure – III  
Water Balance – Wet season

