FORM 1 & 1A

For

Proposed Residential cum Commercial Project

At

Plot bearing S. No. 46, H. No. 1, 2, 3P/2, 3P/3, S. No. 47, H. No. 1P, 1P/2, 1P/3, 1P/4, 2P, 3P/2, 5P/1, 5P/2, S. No. 58, H. No. 5P, H. No. 5P Of Village Bhadvad and S. No. 121, S. No. 122, H. No. 1, S. No. 128, H. No. 1 of Village Temghar, Taluka- Bhiwandi, Dist.- Thane, Maharashtra.

Proposed By

ACCURA SERENITY INFRA LLP.

APPENDIX - I

(See paragraph – 6)

FORM 1

(I) Basic Information

Sr. No.	Item	Details		
1	Name of the project/s	Residential cum Commercial project		
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.	Total Plot Area : 67,990 m^2		
		FSI Area	73,585.47	m^2
		Non FSI Area	25,187.23	m^2
		Total Construction Area	**98,772.70**	**m^2**
4	New / Expansion / Modernization	New Project		
5	Existing Capacity/ Area etc.	--		
6	Category of project i.e. A or B	B category		
7	Does it attract the general condition? if yes, please specify	No		
8	Does it attract the specific condition? If yes, please specify	No		
9	Location	Bhiwandi, Dist: Thane		
	Plot/Survey/ Khasra No.	Plot bearing S. No. 46, H. No. 1, 2, 3P/2, 3P/3, S. No. 47, H. No. 1P, 1P/2, 1P/3, 2P, 1P/4, 3P/2, 5P/1, 5P/2, S. No. 58, H. No. 5P, H. No. 5P Of Village Bhadvad and S. No. 121, S. No. 122, H. No. 1, S. No. 128, H. No. 1 of Village Temghar, Taluka- Bhiwandi, Dist.- Thane, Maharashtra.		
	Village	Bhadvad and Temghar		
	Tehsil	Bhiwandi		
	District	Thane		
	State	Maharashtra		
10	Nearest railway station/port along with distance in kms.	Bhiwandi Railway station: Approx. 3.85 km		
11	Nearest Town, city, District Headquarters along with distance in kms.	Bhiwandi City 3km, Kalyan 5 km		
12	Village Panchayat, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Bhiwandi Nizampur City Municipal Corporation		

13	Name of the applicant	**ACCURA SERENITY INFRA LLP**
14	Registered address	Navneet Bhavan, Near Shardashram Society, Bhavani Shankar Road, Dadar (W), Mumbai -400028
15	Address for correspondence:	**ACCURA SERENITY INFRA LLP** Navneet Bhavan, Near Shardashram Society, Bhavani Shankar Road, Dadar (W), Mumbai -400028
	Name	Ketan Gala
	Designation(Owner/ Partner/ CEO)	Owner
	Address	Navneet Bhavan, Near Shardashram Society, Bhavani Shankar Road, Dadar (W), Mumbai -400028
	Pin code	400028
	E-mail	ketangala@yahoo.com
	Telephone No.	022-66626565
	Fax No.	022-66626569
16	Details of alternative sites examined, if any. Location of these sites should be shown on a toposheet.	NA as this is a residential development in the Municipal limits reserved for residential use.
17	Interlined projects	Not Applicable
18	Whether separate application of interlinked project has been submitted?	No
19	If yes, date of submission	
20	If No, Reason	Stand alone construction project
21	Whether the proposal involves approval/clearance under: if ,yes details of the same and their status to be given a) The Forest (Conservation) Act, 1980? b) The wildlife (protection) Act, 1972? c) The CRZ 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? a) Name of the court b) Case No. c) Orders/ Directions of the court if any and its relevance with the proposed project.	No

Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for 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	Land is reserved for Residential Development
1.2	Clearance of existing land, vegetation and buildings?	No	Not Applicable
1.3	Creation of new land uses?	No	The plot of project site is already approved for residential development as per local development plan and will be developed as per the local building by-laws. Hence, no new land use will be created.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Soil samples taken within the plot premises for geotechnical investigation
1.5	Construction works?	No	Will be started after all the requisite permissions.
1.6	Demolition works?	No	Not Applicable
1.7	Temporary sites used for construction works or Housing of construction workers?	Yes	Temporary sheds will be provided for workers
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	For Construction of Commercial building, Excavations quantities= 2,699 m^3 and the same will be used for the back filling of the plinth and levelling of the site.
1.9	Underground works including mining or tunnelling?	No	

1.10	Reclamation works?	No	
1.11	Dredging?	No	
1.12	Offshore structures?	No	
1.13	Production and manufacturing processes?	No	
1.14	Facilities for storage of goods or materials?	Yes	Only construction material will be stored in temporary storage site
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	Solid waste will be treated by Mechanical composting method. Sewage will be treated in Sewage treatment plant The treated sewage will be used for flushing, gardening purpose. The dried sludge and compost will be used as manure for landscaping.
1.16	Facilities for long term housing of operational workers?	No	
1.17	New road, rail or sea traffic during construction or operation?	Yes	Existing road network will be used during construction and operation phase of project.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	Existing road will be used for the transport purpose.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	
1.20	New or diverted transmission lines or pipelines?	No	
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	
1.22	Stream crossings?	No	
1.23	Abstraction or transfers of water form ground or surface waters?	No	
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	There will not be any changes in water bodies or the land surface which will affect the runoff
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Construction workers and construction material
1.26	Long-term dismantling or decommissioning or restoration works?	No	

1.27	On-going activity during decommissioning which could have an impact on the environment?	No	Not Applicable
1.28	Influx of people to an area in either temporarily or permanently?	Yes	Construction workers during construction phase and residents during operation phase
1.29	Introduction of alien species?	No	No introduction of alien species will occur as this is purely residential project
1.30	Loss of native species or genetic diversity?	No	No threat of species loss will occur.
1.31	Any other actions?	No	No

2. Use of Natural resources for construction or operation of the 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 especially undeveloped or agricultural land (ha)	No	Land is reserved for Residential Development.
2.2	Water (expected source & competing users) unit: CMD	Yes	**Operation Phase:** Total Water demand- 655 KLD Source: Bhiwandi Nizampur City Municipal Corporation The detailed water balance for operation phase of project is attached as **Annexure IV**
2.3	Minerals (MT)	No	
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Construction material will be sourced from nearby local vendors
2.5	Forests and timber (source – MT)	Yes	Only door frames (if so planned)
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Demand Load: 5.8 MW Connected Load: 8.5 MW **Source of electricity: MSEDCL**
2.7	Any other natural resources (use appropriate standard units)	No	Solar operated pole lights will be proposed to power pathway lights at some strategic locations. Solar hot water systems will be used for upper floors in the building.

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)	Yes	This being a residential, no use and storage of hazardous chemicals (as per MSIHC rules) during operation phase is anticipated. However there may be some handling of spent oil, from backup DG sets. Used lubricant oil from DG sets will be given to authorised recyclers
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not Applicable
3.3	Affect the welfare of people e.g. by changing living conditions?	No	Proposed project will not affect the welfare of people
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Proposed project will not affect hospital patients, children etc. as these are located away from the project site
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	Soil during excavation		
4.2	Municipal waste (domestic and or commercial wastes)	Yes	**Municipal Solid Waste**		
			Total	**2,550**	**kg/day**
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Used oil from DG set will be given to authorised recyclers		
4.4	Other industrial process wastes	No	This is Residential cum Commercial project		
4.5	Surplus product	No	Not Applicable		
4.6	Sewage sludge or other sludge from effluent treatment	Yes	6 m^3/d Used as manure after drying.		
4.7	Construction or demolition wastes	Yes	Construction debris during construction phase. The construction debris and excavated soil will be disposed as per the approval of District collector		
4.8	Redundant machinery or equipment	No	Not Applicable		
4.9	Contaminated soils or other	No	Not Applicable		

	materials		
4.10	Agricultural wastes	No	Not Applicable
4.11	Other solid wastes	No	Not Applicable

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	Emission from DG sets during power failure and movement of vehicle during operation phase of the project
5.2	Emissions from production processes	No	Not Applicable
5.3	Emissions from materials handling including storage or transport	Yes	Fugitive emission from handling sand, aggregates, cement etc.
5.4	Emissions from construction activities including plant and equipment	Yes	Transportation of construction material & handling of sand, aggregates, cement, DG sets etc. The emissions from construction machinery would contain particulates, SO_x, NO_x and CO
5.5	Dust or odour from handling of materials including construction materials, sewage and waste	Yes	Transportation, loading and unloading of material will generate dust Odour from Solid waste Management and STP area if not handled properly
5.6	Emissions from incineration of waste	No	Not Applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not Applicable
5.8	Emissions from any other sources	No	Not Applicable

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 with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Increase in noise levels due to operations of construction equipments & vehicular movement Heat emissions from basement ventilation exhaust units.
6.2	From industrial or similar processes	No	Not Applicable
6.3	From construction or demolition	Yes	Increase in noise levels due to operation of construction equipments & vehicular

			movement emissions from vehicles & DG sets
6.4	From blasting or piling	No	Open Foundation
6.5	From construction or operational traffic	Yes	Traffic during construction phase is negligible and during operation phase is more
6.6	From lighting or cooling systems	No	
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	Yes	Due to spillage of used oil from DG set
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	STP will be used for sewage treatment. Treated sewage will be used for gardening and flushing purpose. Surplus Treated Water will be discharged in Municipal Sewer Lines
7.3	By deposition of pollutants emitted to air into the land or into water	No	Not Applicable
7.4	From any other sources	No	Not Applicable
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	Not Applicable

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

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	Yes	Spillage of used oil from DG sets and explosion in Diesel Storage area. Adequate fire protection measures will be taken up as per the CFO NOC
8.2	From any other causes	Yes	• Accidents during construction phase (Slips, fall from height, falling of objects/ material on workers, fire, cut and burns, electric shock and collapse of shuttering • Fire due to short circuiting • Terrorism • Breakdown of elevator
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	The proposed structure is designed as per Seismic Zone III standards.

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

Sr. No.	Information/Checklist confirmation	Yes/ No	Details there of (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting. facilities, 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	No	Supporting infrastructure is already in existence and it will be further developed The area is planned for urban development. The developments related to urbanization are envisaged and Town Planning Authority has declared the location for the same, considering the environmental factors.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not Applicable
9.3	Set a precedent for later developments	No	Not Applicable
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 (within 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	Yes	Sanjay Gandhi National Park, Boriwali (Approx:13 km)

2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	Sanjay Gandhi National Park, Boriwali (Approx:13 km)
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	Yes	Sanjay Gandhi National Park, Boriwali (Approx:13 km)
4	Inland, coastal, marine or underground waters	Yes	Ulhas River 2.3 km
5	State, National boundaries	No	
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	
7	Defence installations	No	
8	Densely populated or built-up area	Yes	Fully urbanised area
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Hospitals, schools, colleges, community facilities, & places of worship are present around the project site. These places fall under Bhiwandi Nizampur City Municipal Corporation.
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	

(IV). Proposed Terms of Reference for EIA studies

I hereby given undertaking that the data & information given in the application & enclosures are true to the best of my knowledge & belief & 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 give, if any to the project will be revoked at our risk and cost.

Date: 28.10.2016
Place: Thane

ACCURA SERENITY INFRA LLP.
Navneet Bhavan, Near Shardashram Society,
Bhavani Shankar Road, Dadar (W),
Mumbai -400028

Signature of the applicant
With name & full address
(Project proponent/Authorised signatory)

NOTE:

1) **The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t C.R.Z(at the stage of TOR) and the recommendations of the State Coastal Zone management Authority(at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z Notification, 1991 for the activities to be located in the CRZ.**

2) **The projects to be located within 10 km of the national Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-avis the project location and the recommendations or comments of the chief Wildlife thereon.(at the stage of EC)**
3) **All correspondence with the ministry of Environment & Forests including submission of application for TOR/Environmental Clearance, subsequent clarifications as may be required from time to time, participation in the EAC meeting on behalf of the project proponent shall be made by the authorised signatory only. The authorised signatory should also submit a document in support of his claim of being an authorised signatory for the specific project.**

APPENDIX - II
(See paragraph 6)

FORM-1 A (only for construction projects listed under item 8 of the Schedule)

CHECK LIST OF ENVIRONMENTAL IMPACTS

(Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)

<table>
<tr><td>1. LAND ENVIRONMENT</td><td colspan="3"></td></tr>
<tr><td>(Attach panoramic view of the project site and the vicinity)</td><td colspan="3"></td></tr>
<tr><td>1.1 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 be 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. If not available attach only conceptual plans.</td><td colspan="3">The existing land use will not get altered from the project.
Proposed development is in line with D. P of Bhiwandi Nizampur Municipal corporation. Following documents are attached as supporting documents.
Location Plan is attached as ANNEXURE II
Conceptual Plan is attached as ANNEXURE III</td></tr>
<tr><td rowspan="7">1.2 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.</td><td>Total Plot Area</td><td>67,990</td><td>m²</td></tr>
<tr><td>FSI Area</td><td>73,585.47</td><td>m²</td></tr>
<tr><td>NON FSI Area</td><td>25,187.23</td><td>m²</td></tr>
<tr><td>TOTAL CONSTRUCTION AREA</td><td>98,772.70</td><td>m²</td></tr>
<tr><td>Total Water Demand</td><td>655</td><td>KLD</td></tr>
<tr><td colspan="3">Energy Consumption</td></tr>
<tr><td colspan="3">Total connected load: 8.5 MW</td></tr>
<tr><td colspan="3">Parking Provided</td></tr>
</table>

		Parking provided (Nos)
	Residential Parking(4 W)	**716**
	Residential Parking(2 W)	**930**
	Connectivity	Location Plan is attached as **ANNEXURE II**
1.3 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).	The project being a well-planned activity will result in organized open spaces and green areas. The biodiversity in the area will increase due to proposed green areas. Community cum recreational facilities will be developed hence no stress on the existing facility is anticipated.	
1.4. Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).	The main reasons for erosion are overexploitation of groundwater, instable slopes, landslides etc. The proposed construction will involve cutting and filling operations. The project will involve construction of roads and development of green areas, which would reduce the chances of erosion and subsidence. Subsidence is not anticipated as ground water would not be used as a source of water supply. As per seismic-zoning map of India, the project site falls under zone III. Structural design requirements will be as per zone III.	
1.5 Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)	The proposed development is planned in such a manner that it will not alter the existing drainage pattern of the area.	
1.6 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.)	Excavation for foundation parking Purpose, quantity 2669 m^3	
1.7 Give details regarding water supply, waste handling etc during the construction period.	Temporary water storage tanks will be provided for drinking and construction purpose. Drinking water will be made available from Municipal Water Supply Line and other water will be taken from tanker water. Temporary Septic Tanks for the construction workers would be provided.	

1.8	Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)	No wet lands and low-lying areas on the site.
1.9	Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)	No health hazard is anticipated. Minor quantity of construction debris will be generated. The construction debris and excavated soil will be disposed as per the District Collectors approval

2. WATER ENVIRONMENT

2.1	Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.	Water Requirement: 655 KLD. The proposed water demand will be met from Bhiwandi Nizampur City Municipal Corporation. Enclosed as **ANNEXURE IV**		
2.2	What is the capacity (dependable flow or yield) of the proposed source of water?	The proposed water demand will be met from Bhiwandi Nizampur Municipal Corporation.		
2.3	What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)	Water will be sourced from Bhiwandi Nizampur Municipal Corporation.		
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)	Treated water from STP will be used for flushing in toilets, garden area		
		Total Sewage generated	631	KLD
		Total STP Capacity	630	KLD
		Treated water recycled for flushing	223	KLD
		Treated water for gardening	54	KLD
		Treated water to Municipal Drain	328	KLD
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)	No diversion is anticipated		

<table>
<tr><td>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)</td><td>The total sewage of about 612 KLD will be generated from the complex. The composition of water is given in the table indicating the quality of raw waste water before treatment
<table>
<tr><th>Parameters</th><th>Values</th><th>Units</th></tr>
<tr><td>pH</td><td>7-8</td><td>mg/l</td></tr>
<tr><td>BOD</td><td>250-300</td><td>mg/l</td></tr>
<tr><td>COD</td><td>450-600</td><td>mg/l</td></tr>
<tr><td>O & G/ ABS</td><td>10-20</td><td>mg/l</td></tr>
<tr><td>TSS</td><td>100-200</td><td>mg/l</td></tr>
</table>
Mitigation measures: Domestic Effluent will be treated in the Sewage Treatment plant of total capacity 630 KLD. The treated sewage water will be reused for flushing and gardening.</td></tr>
<tr><td>2.7 Give details of the water requirements met from water harvesting? Furnish details of the facilities created.</td><td>The project activity shall have rainwater harvesting only of rainfall on terraces.</td></tr>
<tr><td>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? Would it aggravate the problems of flooding or water logging in any way?</td><td>Proposed development is in tune with D.P of Bhiwandi Nizampur City Municipal Corporation. The project will have proper storm water drainage facility as per Storm Water Drain Remarks by concerned authority. So there will be no problem of water logging due to this project.</td></tr>
<tr><td>2.9 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)</td><td>In the proposed development there will be no tapping of groundwater. Water demand for the operational phase will be met from sources such as Bhiwandi Nizampur City Municipal Corporation.</td></tr>
</table>

2.10 What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)	To prevent degradation and maintain the quality of water source, adequate control measures have been proposed to check the surface run-off, as well as uncontrolled flow of water into any water body. • Avoid excavation during monsoon season. • Rainwater harvesting can serve as a solution to water problem in worst case scenario. Following methods can increase efficiency of rainwater harvesting and recharging groundwater. • Catch drainage all along the periphery of plot to prevent surface runoff. • Reduce and filter surface runoff. • Use vegetated swales and depressions to reduce runoff.
2.11 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)	During rainy season, after the rainfall some part of the rainwater percolates into the ground and joins ground water table, a part is retained as soil moisture, some part is lost in evapotranspiration and the remaining part overflows as storm water runoff. The quantity of runoff reaching the sewers or drains is considerable as compared with sanitary sewage. The project will have proper storm water drainage facility as per Storm Water Drain Remarks by concerned authority. So there will not be problem of water logging due to this project.
2.12 Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)	No, the deployment of construction labourers will not lead to any unsanitary condition. The construction labourers will be provided with temporary shelter shades within the project premises. The unsanitary condition will be removed by means of providing readymade septic tanks & soak pits. Solid waste will be disposed off in municipal waste disposal system.
2.13 What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)	The Sewage Treatment plant (STP) is designed to treat the raw waste water generated from Residential Project
2.14 Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.	Yes, The proposed development will have the dual plumbing system as the treated sewage will be used for recycling.

3. VEGETATION

3.1	Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with it's unique features, if any)	There is no sensitive ecosystem present at site that will be disturbed by the project, as existing land use in surrounding area is residential and commercial
3.2	Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)	Yes. Minor Clearance of Vegetation
3.3	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)	About 10,892.56 m^2 areas are provided for the development of Green belt in the premises. The green belt will be developed for control of pollution and aesthetic view of the complex

4. FAUNA

4.1	Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for their movement? Provide the details.	No. The proposed site and its surroundings do not support any habitat for any group of wild animals.
4.2	Any direct or indirect impacts on the avifauna of the area? Provide details.	No. There will be no direct or indirect impact on the avifauna of the area.
4.3	Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna	Since the proposed project would not have any adverse impact on fauna hence mitigation measure not relevant.

5. AIR ENVIRONMENT

5.1	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)	The project will result in negligible increase in the atmospheric concentrations of gases due to D.G. operations (back up power only) and the increased traffic. The proposed activity will not result in the formation of any heat islands, as it does not involve any significant change in the land use pattern or the concreting of areas.
5.2	What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.	Diesel generator sets operated for back-up power supply are identified as the only major sources of gaseous and particulate emission. Impact of vehicular is not significant. SO_2, SPM, NO_X and CO emissions are expected due to fuel combustion in generator sets.

<table>
<tr><td>5.3 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 & exit to the project site.</td><td>The proposed project is located in well-developed urbanised area. The project will have proper entry and exit for the vehicles. There will not any significant traffic congestion due to project site.
Parking Provided
<table><tr><td></td><td>Parking provided (Nos)</td></tr><tr><td>Residential Parking (4 W)</td><td>716</td></tr><tr><td>Residential Parking (2 W)</td><td>950</td></tr></table></td></tr>
<tr><td>5.4 Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.</td><td>Internal roads, footpaths/ pedestrian pathways have been planned within the proposed complex</td></tr>
<tr><td>5.5 Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.</td><td>Considering the addition of vehicles due to the proposed project with the existing roads and vehicles plying on them, there will be marginal increase in the noise levels but will not result in an impact.</td></tr>
<tr><td>5.6 What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.</td><td>DG set will be used in construction and operation phase only in case of power failure.
The DG Sets shall be as per the guide lines laid down by EPR for specific noise emission standards. Measures shall be taken for reduction of noise by using acoustic enclosures.
Increase in noise levels are expected from various construction equipment and machinery.</td></tr>
</table>

6. AESTHETICS

6.1 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 land use of the site would be mainly Residential Building and will not result in obstruction of view, scenic amenity or landscape. However, the buildings will be planned in such a way that the organised open areas and landscaped areas are at the centre so that all can enjoy the green areas.
6.2 Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?	Internal roads, footpaths/ pedestrian pathways have been planned within the proposed complex

6.3	Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.	The project has been designed as per the development control Regulation of Bhiwandi Nizampur City Municipal Corporation
6.4	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.	No anthropological or archaeological sites or artefacts are found near the site area.

7. SOCIO-ECONOMIC ASPECTS

7.1	Will the proposal result in any changes to the demographic structure of local population? Provide the details.	No. Majority of the labour will be recruited locally and only minimal skilled workers would be from outside, which is anticipated to be very small and will not alter the existing demographic profile of the area.
7.2	Give details of the existing social infrastructure around the proposed project.	The project comes in residential area and has all basic infrastructural facilities as schools, medical establishments, shops, etc.
7.3	Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?	No. The project will have positive impact on local communities.

8. BUILDING MATERIALS

8.1	May involve the use of building materials with high-embodied 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)	Yes building materials such as coal ash, light weight concrete, composite or engineered marble, aluminium, acp, recycled glass or composite wood will be used.
8.2	Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?	Adequate mitigative measures will be adopted. Construction equipment with idling control technologies will be used. Regular maintenance of the equipments will be carried out. The construction activities will be carried out during the daytime only. The workers exposed to high noise generating would be provided with earplugs earmuffs. As per Environmental Management Plan.
8.3	Are recycled materials used in roads and structures? State the	Fly ash in cement concrete. Typically 20 - 25 % of fly ash is substituted in cement

	extent of savings achieved?	
8.4	Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.	The bio-degradable and non-bio degradable waste will be segregated at source of waste generation. Solid waste generated 2,550 kg/day

9. ENERGY CONSERVATION

9.1	Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?	Source of power supply: MSEDCL DG Set will be provided as emergency backup. Power requirement: 5.1 MW
9.2	What type of, and capacity of, power back-up do you plan to provide?	DG Set will be provided for 100% emergency backup for Residential and commercial buildings mainly for common areas, lift, pathways etc. DG set for Residential : 2000 kVA (4X500kVA)
9.3	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?	Double glazed glass for Residential building
9.4	What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.	The building structure will be designed in such a way that solar light can be utilised maximum for day time.
9.5	Does the layout of streets & buildings maximise 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? Substantiate with details.	Solar street lights are proposed in building and common areas such as open spaces, pathways, RG etc.
9.6	Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?	Yes. Shading has been effectively used to reduce the cooling loads.

<table>
<tr><td>9.7 Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.</td><td>Yes. The rooms will be so dimensioned that effective air conditioning can be carried out. Public areas will be cooled by natural ventilation. The design of the building will be such that maximum use of natural ventilation can be achieved. The walls, roofs and openings will be so designed that influx of heat is minimum.</td></tr>
<tr><td>9.8. What are the likely effects of the building activity in altering the micro-climates? Provide a self assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?</td><td>Heat emission from the proposed construction can be from the following sources:
Heat absorbed from the concrete structures, heat generated from equipments/ appliances, and due to increased population in the proposed development. However the heat generated will not be significant and will be dissipated in the lush greens and open areas provided within. Hence it can be concluded that the heat island effect shall not be a concern for the proposed project.</td></tr>
<tr><td rowspan="3">9.9. 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.</td><td colspan="3">U value in Watts/hr/m^2/°C</td></tr>
<tr><td>U value of Roof</td><td>0.409</td><td>Watts/hr/m^2/°C</td></tr>
<tr><td>U value of glass</td><td>1.9-2.2</td><td>Watts/hr/m^2/°C</td></tr>
<tr><td>9.10 What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.</td><td>The fire fighting system shall compromise of hydrant system, sprinkler system and portable extinguishers. Smoke detectors will be provided along with manual call points. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire hose cabinet (weather proof). All external yard hydrants shall be at one meter height from finished ground level as per National Building Code. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant, and the external hydrants are not vulnerable to mechanical or vehicular damage.</td></tr>
<tr><td>9.11 If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.</td><td>U=6.9 w/sq.m-deg.K, SHGC=0.45</td></tr>
<tr><td>9.12 What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.</td><td>The following measures will be adopted to mitigate the effects of infiltration:
• Aluminium windows with rubber gasket, so that the windows are sealed, will be provided.
• Summer cross section ventilation will be maximum.</td></tr>
</table>

9.13 To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.	Not Applicable

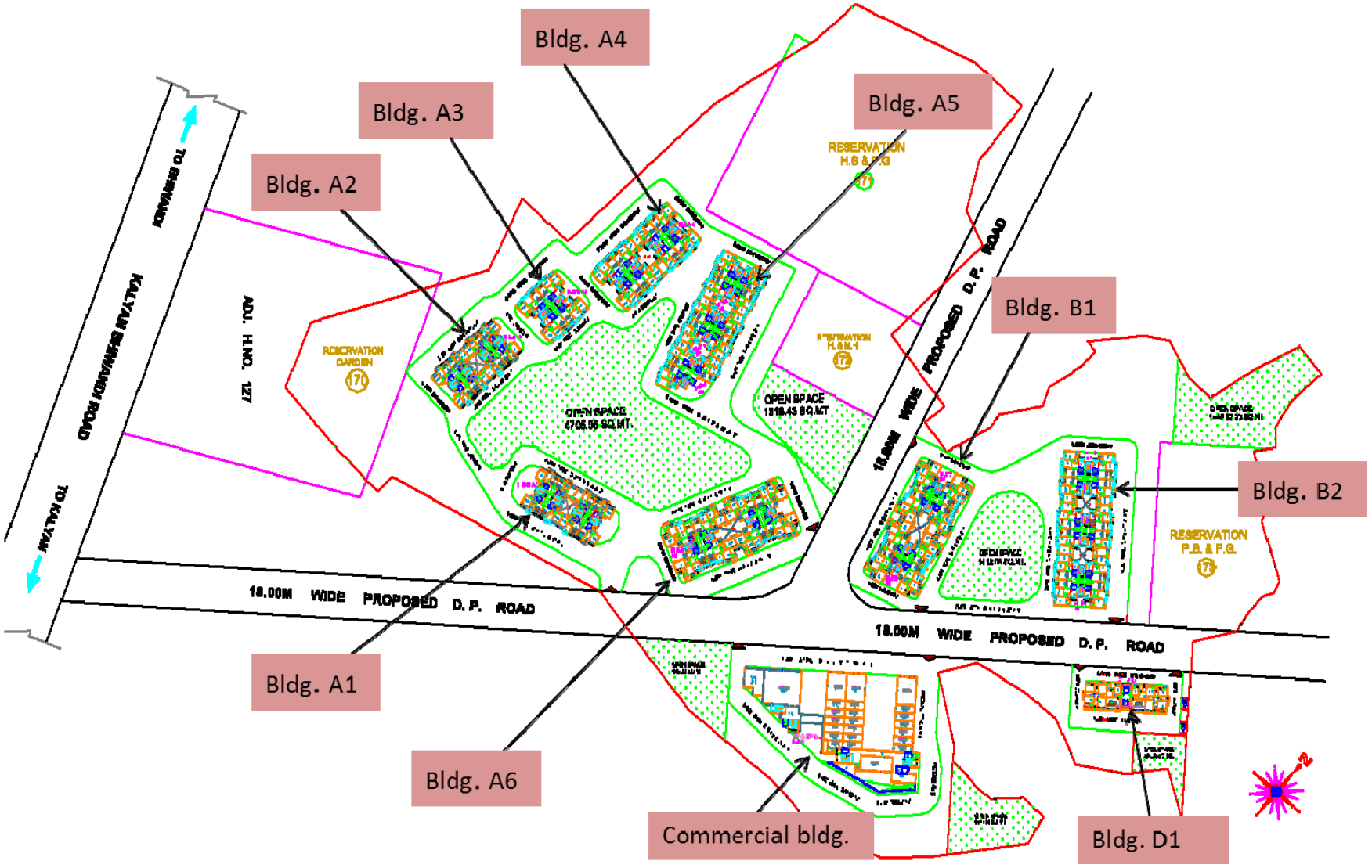
10. Environment Management Plan	
The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It 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.	Enclosed as **Annexure V**

ANNEXURE I
AREA STATEMENT

Total Plot Area	**67,990.00**	**m^2**
FSI Area	73,585.47	m^2
NON FSI Area	25,187.23	m^2
TOTAL CONSTRUCTION AREA	**98,772.70**	**m^2**

ANNEXURE II
LOCATION PLAN

ANNEXURE III
CONCEPTUAL PLAN



ANNEXURE IV
WATER BUDGET CALCULATION

Particulars	No of Flats/shops /rooms /Cars	Occupancy	Total Population	Water Requirement Basis (in lpcd)*		Total Water Requirement/ person	Water Demand KLD
				Domestic	Flushing		
Flats	930	5	4,650	90	45	135	628
Commercial, Shops	112	3	336	15	30	45	15
Theatre	3	204	612	10	5	15	9
Other Utility Area	1762.2	1 P/10 m2	176	10	5	15	3
Total			**5,774**				**655**
Sewage Generation				**90 % of Domestic & 100 % of Flushing Requirement**			**612**
Sludge				**1 % of Sewage Generation**			**6**
Recycling for Flushing							
Flats	930	5	4,650		45	45	209
Commercial, Shops	112	3	336		30	30	10
Theatre	3	204	612		5	5	3
Other Utility Area	1762.2	1 P/10 m2	176		5	5	1
Total			**5,774**				**223**
Gardening area in m2	**10892.56**					5 l/m2	**54**
Excess Treated Water to Municipal Sewer							**328**

ANNEXURE V
ENVIRONMENTAL MANAGEMENT PLAN DURING CONSTRUCTION PHASE

Sr. No.	Environmental Components	Predicted Impacts	Probable source of Impact	Mitigation Measures	Remarks
CONSTRUCTION PHASE					
1.	Ambient Air Quality	Negative impact inside construction site premises. No negative impact outside site.	Dust emissions from excavation, air emissions from machinery and other construction activities at site.	Dust reduction measures such as road watering. Periodic maintenance of construction equipment. Use of good quality fuels. Use of Personal Protective Equipments	Impacts are temporary during construction phase. Impacts will be confined to short distances, as coarse particles will settle within the short distance from activities.
2.	Noise	Negative impact near noise generation sources inside premises. No significant impact on ambient noise levels in the surrounding area.	Noise generated from construction activities and operation of construction equipment and DG sets	Use of well maintained equipment. Heavy construction activity limited to day-time hours only. Use of noise mufflers in and construction vehicle. Use of earplugs/muffs by construction staff.	Temporary impacts during construction phase. No blasting or other high noise activities envisaged.
3.	Water	No significant negative impact.	Surface runoff from project site. Oil/fuel and waste spills. Improper debris disposal. Discharge of sewage from labour camp.	Silt fences to reduce run-off Secondary containment and dykes in material storage areas. Sewage treatment in septic tanks.	Labour will be employed to reduce size of labour camps. No perennial surface water resource adjacent to site. No excavation work will be
4.	Land	Minor negative impact	Excavation, Construction debris, waste	Reutilization and recycling of construction debris	

			from labour camp.	Waste from labour camps will be collected and composted on site. Non compostable waste will be transported to landfill site. Topsoil will be conserved and used for landscaping in functional phase.	-
5.	Aesthetics	Minor negative impacts	Construction activities and Excavation	The impacts will be compensated by extensive tree plantation and gardening in the use phase.	Short term impact restricted only in the initial stages of construction.

ENVIRONMENTAL MANAGEMENT PLAN DURING FUNCTIONAL PHASE

Sr. No.	Environmental Components	Predicted Impacts	Probable Source Of Impact	Mitigation Measures	Remarks
FunctionaL PHASE					
1.	Ambient Air Quality	Minor Negative impact	Particulate and gaseous emissions from DG sets and vehicle movement	Use of low sulphur good fuel Periodic maintenance of DG sets Use of CNG/LPG as a fuel should be encouraged.	DG sets will be used.
2.	Noise	Minor negative impact inside premises.	Noise from vehicle movement and operation of diesel generator sets during power failure.	Housing of DG sets in buildings with appropriate acoustics. Traffic management measures to reduce noise Appropriate trees which will act as noises barriers will be planted in the premises and along roadside.	--
3.	Water	No significant adverse impact	Oil/ fuel and waste spills in vehicle parking area. Discharge of sewage. Discharge of contaminated storm water	Sewage water will be treated and recycled. Rainwater harvesting and recharge of groundwater aquifer is proposed. Good housekeeping and storm water management will	Recycled water will be used for gardening and flushing purpose.

Sr. No.	Environmental Components	Predicted Impacts	Probable Source Of Impact	Mitigation Measures	Remarks
				be followed.	
4.	Land	No negative impact	Storage and disposal of solid wastes. Discharge of sewage. Fuel and material spills.	Treatment and reuse of sewage water. Integrated waste management and spill control plan Dry garbage will be sent for recycling and wet garbage will be composted.	Segregation of dry and wet garbage before will be done before disposal.
5.	Biological	Overall Positive impact	Habitat disturbance	Green spaces inside the premises will help to compensate the earlier effect from vegetation. Landscaping and extensive plantation in the premises.	Landscaping will help in reducing any adverse impacts on air and noise quality.
6.	Socio-economic	Overall positive impact	Increased job opportunity in household maintenance and ancillary services.	--	Positive and long term impact-
FunctionaL PHASE					
7.	Traffic Pattern	No significant Impact	The complex is likely to add moderately to the traffic flow considered during peak hour.	Traffic Management practises will be employed. Adequate parking space will be provided in the premises.	