

Application for Amendment in ToR
OF
EXPANSION of
“Residential Plotted Colony”

AT
VILLAGE- KABRI & FARIDPUR, Sector-36-39, PANIPAT,
Haryana.

BEING DEVELOPED BY:

M/s Taneja Developers & Infrastructure Pvt. Ltd.
9, K.G, Marg, New Delhi-110001

Prepared by:

Environmental Consultant

M/S PERFECT ENVIRO SOLUTIONS PVT. LTD.

(NABET Registered Vide list of accredited consultants organizations/ Rev 45/5th August, 2016
at S. No-96)

502-507, NN Mall, Sector-3, Rohini, New-Delhi-85

Phone: 011-47528467; 011-47021086

Fax: - 011-475284

TDI INFRATECH LIMITED

Formerly Known as M/s TANEJA DEVELOPERS & INFRASTRUCTURE LIMITED
CIN No. U99999DL1999PLC102277

The Member Secretary,
Infrastructure & Miscellaneous Projects & CRZ committee (Infra 2)
Ministry of Environment, Forests and Climate Change
Govt. of India
Indira Paryavaran Bhavan,
Jor Bagh Road, New Delhi-110003

Dated: 10-05-2017

**Reference: - 1) ToR granted F.No. HR/SEAC/686/1450 dated 15-09-2016.
2) Proposal No: IA/HR/NCP/62487/2015 (Acknowledgement slip for Rejection of proposal of amendment in TOR application).**

Subject: Amendment in ToR for project "Expansion of Residential Plotted Colony" Village Kabri, Faridpur, Ratipur, Mehmampur, Sector-36-39, Panipat, Haryana.

Dear Sir,

We wish to inform you that we had already been granted the Environmental Clearance vide letter no. 21-577/2007-IA.III dated 7-01-2008 for the development of the "Residential Plotted Colony" at Village Kabri, Faridpur, Ratipur, Mehmampur, Sector-36-39, Panipat, Haryana for a plot area 1610646.30 sqm (398 acres). However, development was done only on land area 896123.39 sqm (221.44 acre).

Due to addition in land and increase in built-up area, TOR for the Expansion of "Residential Plotted Colony" was granted by SEAC Haryana vide F.No. HR/SEAC/686/1450 dated 15-09-2016 for plot area 1009101.95 sqm (249.35 acre) and built-up area 2018203.88 sqm.

Meanwhile, we have been granted another additional land of 171594.437 sqm (42.4025 acre) by DTCP. After expansion, the total land of the project will be 1180696.387 sqm and the built-up will increase from 2018203.88 sqm to 2266844.2 sqm. As per the amendment in EIA notification dated 9th December 2016, as the built-up area is greater than 3,00,000 sqm thus the project falls under the Category 8(b), "A".

Thus, we had applied in MoEF&CC for Amendment in ToR on 17.02.2017 and the amendment in TOR is still awaited. As per the earlier TOR granted we had collected the baseline data from December 2016-February 2017. Hence, we are hereby submitting the application again for the above said project for Amendment in TOR. Also, the EIA report shall be submitted as per the baseline data collected and after the grant of amendment in TOR.

For TDI Infratech Limited


Director/Authorised Signatory

We are enclosing the following documents:

1. FORM I & IA
2. Pre-Feasibility Report
3. Land Papers
4. Earlier ToR Granted

We shall be thankful if amendment in Terms of Reference be granted at the earliest.

Thanking you.
Yours faithfully,

For M/s TDI INFRATECH LIMITED

For TDI Infratech Limited



Director/Authorized Signatory

FORM 1

I. Basic Information

S. No.	Item	Details
1.	Name of the project/s	Expansion of "Residential plotted colony"
2.	S. No. in the schedule	8 (b)
3.	Proposed capacity/ area/length/ tonnage to be handled/ command area/ lease area/ number of wells to be drilled	Existing Plot Area= 8,96,123.39 sqm (221.44 Acre) Proposed Plot Area= 1,12,978.56 sqm (27.918 Acre) Additional Plot Area=171594.437 sqm (42.4025 Acre) Total Plot Area= 11,80,696.387 sqm (291.7665 Acre) Existing Built-up area- 17,92,246.77 sqm Proposed Built up area= 2,25,957.11 sqm Additional Built-up area= 2,48,640.33 sqm Total Built-up area= 22,66,844.21 sqm
4.	New/ Expansion/ Modernization	Expansion
5.	Existing Capacity/ Area etc.	Plot Area on which Environment Clearance granted= 1610646.30 sqm (398 acres)
6.	Category of Project i.e. 'A' or 'B'	A
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	Vill. - Kabri & Faridpur, Distt.-Panipat, Haryana
	Plot/ Survey/ Khasra No.	Given in License attached in Enclosure-17
	Village	Kabri & Faridpur
	Tehsil	Panipat
	District	Panipat
	State	Haryana
10.	Nearest railway station/ airport along with distance in kms.	Nearest railway station- Babarpur Railway station – 2.1 Km NE Kohand Railway station – 7.0 Km NE Nearest airport:

		Indira Gandhi national airport -97 Km S Nearest Highway: NH-1 – 1.2 Km E
11.	Nearest Town, city, District Headquarters along with distance in kms.	Panipat
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Nagar Nigam Panipat, Near Lal Batti Chowk, G.T. Road, Panipat-132103.
13.	Name of the applicant	M/s Taneja Developers & Infrastructure Pvt. Ltd.
14.	Registered Address	9, K.G, Marg, New Delhi-110001
15.	Address for correspondence:	9, K.G, Marg, New Delhi-110001
	Name	Mr. Om Prakash Dhingra
	Designation (Owner/Partner/CEO)	Authorized signatory
	Address	10, Shaheed Bhagat Singh Marg, Gole Market, New Delhi
	Pin Code	110001
	E-mail	Subodhsaxena220@gmail.com
	Telephone No.	011 - 43111111
	Fax no.	011 - 43111199
16.	Details of Alternative Sites examined, if any. Location of these sites should be shown on a Toposheet.	No.
17.	Interlinked Projects	No, it is not an interlinked project.
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.	<p>Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given.</p> <p>(a) The Forest (Conservation) Act, 1980?</p> <p>(b) The Wildlife (Protection) Act, 1972?</p> <p>(c) The C.R.Z. Notification, 1991?</p>	<p>Not applicable</p> <p>Not Applicable</p> <p>Not Applicable</p>
22.	Whether there is any Government Order/ Policy relevant/ relating to the site?	Not Applicable
23.	Forest land involved (hectares)	Acknowledgement slip for request of Permission from DFO of forest land for residential colony is enclosed as Annexure.
24.	<p>Whether there is any litigation pending against the project and/ or land in which the project is propose to be set up?</p> <p>(a) Name of the Court</p> <p>(b) Case No.</p> <p>(c) Orders/ directions of the Court, if any and its relevance with the proposed project.</p>	<p>No</p> <p>Not applicable</p> <p>Not applicable</p> <p>Not applicable</p>

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.)**

S. 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)	Yes	<p>The Environmental Clearance has already been granted for 16,10,646.30 sqm (398 Acres) Ltd vide letter no. 21-577/2007-IA.III, dated 07/01/2008. However, development has been done only on land area 896123.39 sqm (221.44 acre). Then, TOR for the Expansion of "Residential Plotted Colony" at Village Kabri & Faridpur, Sector-36-39, Panipat, Haryana has been obtained by SEAC Haryana vide F.No. HR/SEAC/686/1450 dated 15-09-2016 having plot area 1009101.95 sqm (249.35 acre) and built-up area 2018203.88. Then, again additional land of 171594.437 sqm (42.4025 acre) has been granted by DTCP due to which the final built-up shall be increased from 2018203.88 to 2266844.21 and as per the new notification dated 9th December 2016 the project falls under the Category 8(b), sub category A. Hence, Amendment in ToR was applied.</p> <p>For existing land area of 896123.39 sqm (221.44 acre) on which development has been already been done, the land use has already changed to Residential colony. But for additional land area, the land use will change from vacant land to Residential colony.</p> <p>Copy of earlier EC granted is enclosed as annexure.</p>
1.2	Clearance of existing land, vegetation and buildings?	No	<p>Development has been done on land area 896123.39 sqm (221.44 acre). There is no building and distinct vegetation at proposed site on additional land except few grass & brushes, hence no clearance of existing land is required.</p>
1.3	Creation of new land uses?	Yes	<p>For existing land area of 896123.39 sqm (221.44 acre) on which development has been already been done, the land use has already changed to Residential colony but for the additional land granted new land use will</p>

			change from vacant land to Residential colony.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Pre-construction Geo-technical investigation had been done.
1.5	Construction works?	Yes	For existing land area of 896123.39 sqm (221.44 acre) development work of infrastructure facilities have already been done. For additional land area, as It is a residential plotted colony so the plots will be developed by individual plot owner. Project Proponent will develop only infrastructure facilities like roads plumbing, water supply line waste water treatment plant, rain water harvesting pits power supply etc.
1.6	Demolition works?	No	None
1.7	Temporary sites used for construction works or housing of construction workers?	No	Local labour will be engaged from nearby areas, hence no need of housing of construction workers.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	It is residential plotted colony; so, maximum building height will be upto 14 m. Excavation will be done for foundation.
1.9	Underground works including mining or tunneling?	No	It is a construction project. Hence no underground works will be required except for excavation of foundation.
1.1	Reclamation works?	No	No reclamation work will be done
1.1	Dredging?	No	Not applicable
1.1	Offshore structures?	No	Not applicable

1.1	Production and manufacturing processes?	No	It is a construction project; hence no production or manufacturing processes shall be carried out.
1.1	Facilities for storage of goods or materials?	Yes	<p>During Construction Phase:</p> <ul style="list-style-type: none"> ◆ Separate raw material yard shall be made within the project site. ◆ Cement shall be separately stored under cover in bales. ◆ Sand shall be stacked nearby under tarpaulin cover. ◆ Bricks and steel shall be laid in open. ◆ The raw material yard shall be located within the project site. <p>All the above measures will be maintained during construction in proposed and additional plot area.</p> <p>During Operation Phase:</p> <p>As the project is a Residential Plotted Colony, the raw material will be household items which will be stored in respective dwelling units.</p>
1.1	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p>During Construction phase:</p> <p>Solid waste generation is 30 kg/day from labours which is being disposed off at municipal solid waste site. Same shall be maintained during proposed area also.</p> <p>Excavated soil being generated from basement excavation is approx. 1971471 cubic meters.</p> <p>Excavation of about 248552.84 cu m shall be done on additional land after getting Environmental Clearance. Excavated soil is being reused for back-filling, road construction & levelling purposes to the extent possible. The same conservation measures shall be adopted for soil excavated for proposed area.</p>

			<p>During Operation Phase:</p> <p>After expansion, approx. 13163 Kg/day of solid waste shall be generated from the Colony. The waste shall be treated in organic waste converter and converted to manure. Recyclable Waste shall be given to Authorized Recycler</p> <p>In the colony, after expansion generated sewage will be treated in in-house Sewage Treatment Plant capacity 4200 KLD (1000 KLD already installed).</p>
1.1	Facilities for long term housing of operational workers?	No	<p>During Construction phase:</p> <p>The workers during construction phase have been hired from nearby areas and hence no provision of long term housing have been made. Only temporary shelters are provided. Same will be maintained for proposed area also.</p> <p>During Operation Phase:</p> <p>As this is a Residential Plotted Colony, staff will only be needed in the Schools, convenient shopping for certain hours. Other staff like servants or maintenance staff will be from the nearby areas. Separate housing may not be provided.</p>
1.1	New road, rail or sea traffic during construction or operation?	No	<p>No new road, rail or sea traffic is proposed. Existing transportation facilities will be used during construction or operation phase.</p>

1.1	New road, rail, air, waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc.?	No	No new road, rail, or sea traffic is proposed. The transportation measures already existing near site are as follows: Nearest Railway Station- Babarpur railway station- 2.1 Km NE Kohand Railway Station- 7.0 Km NE Nearest Highway- NH 1- 1.2 Km E Nearest Airport- Indira Gandhi International Airport – 97 Km S
1.1	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic	No	No closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements will be made.
1.2	New or diverted transmission lines or pipelines?	No	No such closure or diversion of transmission lines is required.
1.2	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 required.
1.2	Stream crossings?	No	No stream crossing.
1.2	Abstraction or transfers of water from ground or surface waters?	No	No abstraction or transfer of water from ground or surface will be done
1.2	Changes in water bodies or the land surface affecting drainage or run-off?	No	There will be no change in water bodies or the land surface effective drainage or run-off.
1.2	Transport of personnel or materials for	Yes	During Construction phase: Materials during construction phase is transported by trucks, tractor, trolley etc. Same will be done for proposed area

	construction, operation or decommissioning?		During Operation Phase: Car, two-wheeler, etc. will be used.
1.2	Long-term dismantling or decommissioning or restoration works?	No	Not Applicable
1.2	Ongoing activity during decommissioning which could have an impact on the environment?	No	Not Applicable
1.2	Influx of people to an area in either temporarily or permanently?	No	During Construction phase: Temporary influx of people in the form of labors is there. Approx. 200 no. of local labours (including staff) has been employed. During Operation Phase: As this is a Residential Plotted Colony, after expansion 28211 residents, 350 no. of staff working for 8-12 hours & visitors of approx. 2770 no. is envisaged.
1.2	Introduction of alien species?	No	Not Applicable
1.3	Loss of native species or genetic diversity?	No	Not applicable.
1.3	Any other actions?	No	Not Applicable

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):

S. No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
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2.1	Land especially undeveloped or agricultural land (ha)	No	<p>The proposed project is an expansion of Residential Plotted Colony. The land has been licensed by DTCP to M/s Taneja Developers & Infrastructure Ltd for the development Residential Plotted Colony.</p> <p>For existing land area of 896123.39 sqm (221.44 acre) development work of infrastructure facilities have already been done. Additional land area is a vacant land with few herbs & shrubs. As It is a residential plotted colony so the plots will be developed by individual plot owner.</p>
2.2	Water (expected source & competing users) unit: KLD	Yes	<p>Source & Quantity During Construction phase:</p> <p>Water during construction phase is being taken from tanker water supplier which supply treated water from STP of nearby area/HUDA STP.</p> <p>Source & Quantity During Operation Phase:</p> <p>The ultimate source of water will be Ground water. Total water requirement of the project after expansion will be 4775 KLD out of which 2705 KLD will be fresh water. Rest of the 2070 KLD water requirement will be fulfilled by treated water.</p>
2.3	Minerals (MT)	No	Not applicable
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	The major materials required for construction of the project are steel, tiles, glass, cement, agate, bricks, flooring tiles / stones, sanitary and hardware items, electrical fittings, etc.
2.5	Forests and timber (source – MT)	Yes	Plywood for doors & windows shall be used which shall be procured from local market.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	<p>Source of Electricity –Uttar Haryana Bijli Vitran Nigam Limited (DHBVNL)</p> <p>Total Power load: - 22 MVA</p>

			No. of DG Sets: - 7 X 250 KVA (Existing- 5 X 250 KVA & Proposed- 2 x 250 KVA) + 75 KVA at site office, 62.5 KVA at OHSR + 15 KVA at Marketing Office
2.7	Any other natural resources (use appropriate standard units)	No	Not applicable

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.

S. 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	No storage of hazardous substances (as per MSIHC rules) will be done however, 35 liter/month used oil from DG sets and 4-5 kg/month E-waste will be generated from the Colony after expansion. Proper management of Used oil & E-waste shall be taken care of. Details are given in Pre-Feasibility Report.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Suitable drainage and waste management measures has been adopted in construction phase and it will be maintained during operational phase which will restrict stagnation of water or accumulation of water. This will effectively restrict the reproduction and growth of disease vectors.
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	<p>During Construction phase:</p> <p>Employment opportunities provided due to the project has led to better quality of life & have also set a standard for future developments in the area. Moreover, this project has provided employment to about Approx. 200 no. of local labors (including staff).</p> <p>During Operation Phase:</p> <p>As it is a Residential Plotted Colony there shall be several services required which will generate direct & indirect employment for the people of nearby area.</p>

3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	No vulnerable group of people will be affected by the project.
3.5	Any other causes	No	None

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

S. 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.	No	Not applicable
4.2	Municipal waste (domestic and or commercial wastes)	Yes	<p>During Construction phase:</p> <p>Solid waste generated during construction phase is 30 kg/day which is being disposed off at municipal solid waste site.</p> <p>During Operation Phase:</p> <p>Total 13163 kg/day solid waste will be generated from the Colony after expansion. It will be properly managed and given to approve vendor/recycler. 9214 kg/day of bio-degradable waste generated will be sent to organic waste convertor while 3949 kg/day of Recyclable waste shall be given to approved recycler.</p>
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	<p>During Construction phase:</p> <p>Used oil whenever generated from the DG sets is being kept in leak proof containers in an isolated area and is being sent to approved recycler. Same will be done in proposed area also.</p> <p>During Operation Phase:</p> <p>Used oil from diesel generators will be carefully stored and will be given to vendors authorized by CPCB for the treatment of the same.</p>

			Suitable care will be taken so that spills / leaks of used oil from storage could be avoided.
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	About 360 Kg/day of dried sludge will be generated from STP within Colony during operation phase after expansion and this sludge will be passed through filter press where it will be dewatered/ dried to form a cake and then will be used as manure in green areas. The unused sludge shall be given to farmers or nursery.
4.7	Construction or demolition wastes	Yes	Construction waste shall be used for flooring & Back filling in roads etc.
4.8	Redundant machinery or equipment	No	Not applicable
4.9	Contaminated soils or other materials.	No	Not applicable
4.10	Agricultural wastes	No	Not applicable
4.11	Other solid wastes	Yes	E-waste shall be collected and given to approved recycler of SPCB.

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

S. 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	<p>During Construction phase:</p> <p>DG sets of capacities 62.5 has been bought acoustically enclosed with adequate stack height.</p> <p>During Operation Phase:</p> <p>The only source of emission after expansion will be from combustion of fuel of DG sets of 7 X 250 KVA (Existing-5 X 250 KVA & Proposed-2 X 250 KVA capacity) + 75 KVA at site office,</p>

			62.5 KVA at OHSR + 15 KVA at Marketing Office. Hence, to avoid the emissions, stack height of 3 m above roof level for each D.G. sets meeting all the norms prescribed by CPCB shall be installed.
5.2	Emissions from production processes	No	Not applicable
5.3	Emissions from materials handling including storage or transport	Yes	Dust is being generated during construction, from the movement of transport vehicles, storage of construction material & other construction activities. The effect is restricted to construction phase only. Water sprinklers is being used for dust suppression. Material are stored under Tarpaulin cover. Vehicles carrying construction material are being kept covered. Same will be maintained during construction of proposed area.
5.4	Emissions from construction activities including plant and equipment	Yes	RMC is being used. Dust & emissions are generated during construction activities which is being reduced by sprinkling of water in a specific time interval & timely maintenance schedule for machinery. Also, the machines are kept shut down during idle period. Same will be maintained during construction of proposed area.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	<p>During construction phase:</p> <ul style="list-style-type: none"> • During loading & unloading of construction material dust is generated. Water is sprinkled and tarpaulin cover is provided over stored raw material to reduce dust emission. Same will be maintained during construction of proposed area. • Mobile toilets have been provided on site for laborer's which are cleaned timely. Same will be followed during construction of the proposed part.

			<ul style="list-style-type: none"> • Solid waste will be properly collected & will be disposed off to the designated site. <p>During Operation Phase:</p> <ul style="list-style-type: none"> • In-house STP shall be provided to treat wastewater. Proper ventilation will be provided in STP room to avoid accumulation of hazardous gases & bad odour.
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	Open burning of biomass/ other material will be prohibited.
5.8	Emissions from any other sources.	No	None

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S. 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	No	<p>During Construction phase: The equipment such as mixer machines, bulldozers, cranes, compactors & excavators are being used which are of highest standard of reputed make and adhere to international standards.</p> <p>During Operation Phase: After expansion source of noise in the operational phase will be D.G. Set of capacities 7 X 250 KVA (Existing-5 X 250 KVA & Proposed-2 X 250 KVA capacity) + 75 KVA at site office, 62.5 KVA at OHSR + 15 KVA at Marketing Office. The D.G. Sets shall be bought acoustically enclosed & kept in acoustically treated room & and will be used during Power failure only.</p>
6.2	From industrial or similar processes	No	Not applicable
6.3	From construction or demolition	Yes	Due to the various construction activities, there are short-term noise impacts in the immediate vicinity of the project site. These shall be restricted to day time only. It has been estimated that during the construction period the average noise level is 70-75 dB (A) during peak construction hours.
6.4	From blasting or piling	No	No blasting or piling is required.
6.5	From construction or operational traffic	Yes	Some amount of noise (70 – 75 dB (A)) is generated from vehicular movement in the construction phase and will be generated in the operational phase. Plantation around the

			boundary wall shall be done to reduce noise from traffic.
6.6	From lighting or cooling systems	No	Not Applicable
6.7	From any other sources	No	None

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:

S. 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	The hazardous waste generated during operation phase will be Used oil. Used oil generated will be stored in HDPE drums and kept in covered rooms under lock and key and will be sold to authorized vendors only. Special care will be taken to prevent leakages and spills.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	During operational phase after expansion STP of 4200 KLD capacity will be installed for treating the waste water of 3324 KLD. Treated water will be used in flushing, gardening & misc. purpose. Excess treated water of 1088 KLD shall be given to tanker water supplier.
7.3	By deposition of pollutants emitted to air into the land or into water	No	None
7.4	From any other sources	No	E-waste will be generated from the Colony & shall be given to approved recycler of SPCB.
7.5	Is there a risk of long term buildup 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.

S. 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	No	<p>During Construction Phase:</p> <p>All appropriate measures are being taken to avoid accidents.</p> <p>During Operation phase:</p> <p>Proper disaster management & fire-fighting system will be installed at site.</p>
8.2	From any other causes	No	<p>During Construction Phase:</p> <p>All the labors have been provided with suitable personal protective equipment (PPE) as required under the health & safety norms. Training and awareness about the safety norms have been provided to all supervisors and labors involved in construction activity. Same will be maintained during construction of proposed area.</p>
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc.)?	No	The area under study falls in Seismic zone-IV, according to the Indian Standard Seismic Zoning Map. Suitable seismic coefficients in horizontal and vertical directions respectively, will be adopted while designing the structure.

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.

S. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
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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.: <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • Housing development • Extractive industries • Supply industries • Other 	No	Not Applicable
		Yes	STP of 4200 KLD capacity will be installed for the treatment of wastewater.
		No	Not Applicable
		No	Not Applicable
		No	Not Applicable
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	Yes	It will attract people to develop organized Residential Plotted Colony.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	No impact

III. Environmental Sensitivity

S. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1.	Areas protected under international conventions, national or local legislation for	Nil	

	their ecological, landscape, cultural or other related value		
2.	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Water sources or other water bodies Drain No. 2 Western Yamuna Canal	1.5 Km NE 2.9 Km SW
3.	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering,	Nil	
4.	Inland, coastal, marine or underground waters	Nil	
5.	State, National boundaries	U.P. State boundary	15.2 km NE
6.	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	NH-1 SH -16 Railway Line Babarpur Railway Station Kohand Railway Station	1.2 Km E 6.0 Km S 0.7 Km E 2.1 Km NE 7.0 Km NE
7.	Defence installations	Nil	
8.	Densely populated or built-up area	Moderately populated area	

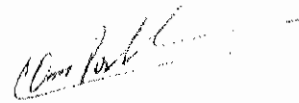
9.	<p>Areas occupied by sensitive man-made land uses (hospital, school, places of worship, community facilities)</p>	<p>Hospitals</p> <p>Pahuja Hospital Patel Nagar 3.5 Km S Prem Hospital Bishon Sarup colony 4.0 km S</p> <p>Schools</p> <p>MASD Public School, Faridpur 0.6 Km NE The Millennium School in Sector-13 Rishikul School, Model Town 2.7 km E</p> <p>Place of worship</p> <p>4.5 Km S</p> <p>Shiv Mandir, Model Town Hazrat Bu Ali-Shah Qulandar, Sethi Chawk area Panipat</p> <p>4.2 km S 5.0 Km SE</p> <p>Community facilities</p> <p>Post office at Patel Nagar Main Post office, Industrial Area, Panipat Bank of Baroda at Lal Tanki Chowk, Panipat 3.6 Km SE Punjab National Bank, Jagnath Vihar, Panipat 4.0 Km S</p> <p>4.5 Km S 4.5 Km SE</p>	
10.	<p>Areas containing important, high quality or scarce resources</p> <p>(Ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)</p>	Nil	
11.	<p>Areas already subjected to pollution or environmental damage. (Those where</p>	Nil	

	existing legal environmental standards are exceeded)		
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)	Natural	The project area falls in seismic zone –IV. There is no previous record of flooding in last 10 years in the area.

"I hereby given undertaking that the data and information given in the application and enclosures are true 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".

Date: 10.02.2017

Place: Delh

A handwritten signature in black ink, appearing to read "Anil Kumar", is written over a horizontal line.

Authorized signatory

FORM 1A

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)

I. LAND ENVIRONMENT

(Attach panoramic view of the project site and the vicinity)

<p>1.1</p>	<p>Will the existing landuse get significantly altered from the project that is not consistent with the surroundings? (Proposed landuse must conform to the approved Master Plan / Development Plan of the area. Change of landuse if any and the statutory approval from the competent authority be submitted). Attach Maps of</p> <p>I. Site location</p> <p>II. Surrounding features of the proposed site (within 500 meters)</p> <p>III. The site (indicating levels & contours) to appropriate scales. If not available attach only conceptual plans.</p>	<p>The project site is located at Village- Kabri & Faridpur, Sector-36-39, Panipat, Haryana.</p> <p>For existing land area of 896123.39 sqm (221.44 acre) development work of infrastructure facilities have already been done. For additional land area, as It is a residential plotted colony so the plots will be developed by individual plot owner. Project Proponent will develop only infrastructure facilities like roads plumbing, water supply line waste water treatment plant, rain water harvesting pits power supply etc.</p> <p>For existing land area of 896123.39 sqm (221.44 acre) on which development has been already been done, the land use has already changed to Residential colony. But for additional land area, the land use will change from vacant land to Residential colony.</p> <p>The site location is shown in the Pre-Feasibility Report Map showing vicinity around the site is shown in the Pre-Feasibility Report Layout plan is enclosed as Annexure</p>
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<p>1.2</p>	<p>List out all the major project requirements in terms of the</p> <p>Land area,</p> <p>Total Built up area</p> <p>Water consumption</p> <p>Power requirement</p> <p>Connectivity</p> <p>Community facilities</p> <p>Parking needs etc.</p>	<p>ToR granted Plot Area= 1,12,978.56 sqm (27.918 Acre) Additional Plot Area=171594.437 sqm (42.4025 Acre) Total Plot Area= 11,80,696.387 sqm (291.7665 Acre)</p> <p>ToR granted Built up area= 2,25,957.11 sqm Additional Built-up area= 2,48,640.33 sqm Total Built-up area= 22,66,844.21 sqm</p> <p>Water consumption after expansion: 4775 KLD Power requirement after expansion: 22 MVA NH-1 – 1.2 Km E</p> <p>Schools, Creche, Dispensary, Club, Religious Building, Taxi Stand, Milk & Veg Booth.</p> <p>Parking shall be provided within the plots.</p>
<p>1.3</p>	<p>What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site?</p> <p>(Such as open spaces, community facilities, details of the existing landuse, and disturbance to the local ecology).</p>	<p>The entire project influenced area is being developed as per the provision of Master Plan of Panipat, thus no induced development is foreseen due to the proposed project.</p> <p>Also, the proposed development is being carried out as per the defined building by-laws; hence no impact is envisaged due to proposed development. Construction phase as well as operation Phase of the project, will generate direct and indirect employment opportunities for a large section of society. The employment will have positive impact thereby increasing the quality of life.</p>
<p>1.4</p>	<p>Will there be any significant land disturbance resulting in erosion, subsidence & instability?</p> <p>(Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc. may be given).</p>	<p>Soil Type: Silt Loam</p> <p>Slope Analysis: The project area possesses fairly plain terrain.</p> <p>Erosion / Subsidence: Proper greening & paving of area will not cause any soil erosion problem and subsidence.</p> <p>Seismicity: The area under study falls in Seismic zone-IV according to the Indian Standard Seismic Map. Suitable seismic coefficients in horizontal and vertical directions respectively, will be adopted while designing the structure.</p>

1.5	<p>Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)</p>	<p>The proposed project activities will not cause any alteration of natural drainage system.</p>
1.6	<p>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.)</p>	<p>Excavation for foundation has been done on existing land. Excavated soil generated from basement excavation & foundation purpose is approx. 1971471 cubic meters. Excavation of about 626065 cu m shall be done on additional land after getting Environmental Clearance. Excavated soil shall be reused for back-filling, road construction & levelling purposes to the extent possible. The top soil will be preserved for landscaping purpose only. Hence, no adverse impacts on the land environment are envisaged.</p>
1.7	<p>Give details regarding water supply, waste handling etc. during the construction period.</p>	<p>Water Supply: During Construction stage, STP treated water is being sourced through nearby STP/HUDA STP. Waste Generation / Handling: Soil excavated will be reused for backfilling and the fertile top soil will be reused for horticulture purpose. Spillage of oil from the machinery or cement residual from concrete mixer plants is being properly collected and reused in construction site. For construction labour, proper sanitary facilities & wash areas has been constructed such as mobile toilets and good hygienic conditions are maintained.</p>
1.8	<p>Will the low-lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)</p>	<p>No low lying and wetlands area are present in and around the project site.</p>

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)	<p>The construction waste generated from the project is common in nature and does not cause any health hazard to associate and nearby population. The construction debris is kept to be used for land leveling/back filling. Waste concrete will be reused as aggregate in construction process.</p> <p>Mobile toilets & drinking water for construction labor are provided. Mobile toilets are being cleaned regularly. The sewage and waste water generated is being disposed off to septic tank via soak pit.</p>
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2. WATER ENVIRONMENT

2.1	<p>Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses.</p> <p>How will the water requirement met?</p> <p>State the sources & quantities and furnish a water balance statement.</p>	<p>The total quantity of water requirement after expansion shall be 4775 KLD & shall be met by Ground water.</p> <table data-bbox="662 929 1157 1187"> <tr> <td>Domestic</td> <td>:2705 KLD</td> </tr> <tr> <td>Flushing</td> <td>:1161 KLD</td> </tr> <tr> <td>Gardening</td> <td>:896 KLD</td> </tr> <tr> <td>Misc.</td> <td>:13 KLD</td> </tr> </table> <hr/> <p>Total Water Requirement: 4775 KLD</p> <p>Total Waste Water Generated: 3324 KLD</p>	Domestic	:2705 KLD	Flushing	:1161 KLD	Gardening	:896 KLD	Misc.	:13 KLD
Domestic	:2705 KLD									
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Gardening	:896 KLD									
Misc.	:13 KLD									
2.2	What is the capacity (dependable flow or yield) of the proposed source of water?	Ground water is a dependable source of water.								
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)	If ground water is inadequate, then the water shall be arranged through tankers.								

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)	The treated water of 2070 KLD shall be utilized for flushing, gardening & miscellaneous purposes within the project premises. Approx. 38% of total water requirement will be met by recycled water.
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)	There will not be any substantial effect on water demand of this region as the development will be done as per the development plan.
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)	Total quantity of wastewater generation after expansion will be 3324 KLD. The treated water 2070 KLD shall be utilized for flushing, gardening & miscellaneous purposes. Approx. 52 % of treated water will be recycled for use. Excess treated water of 1088 KLD shall be discharge into sewer line.
2.7	Give details of the water requirements met from water harvesting? Furnish details of the facilities created.	Individual RWH pit will be developed by the individual plot owner. For the common area, there will be 4 RWH Pits (Details of Rain Water Harvesting is given in pre-feasibility Report).
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	After the construction of the Colony; the rain water will be channelized to 4 nos. of Rain water harvesting pits through the storm water drainage network developed in the colony & shall be used to recharge the ground water after preliminary treatment. Individual RWH pit will be developed by the individual plot owner. No, it will not aggravate the problem of flooding or water logging in any way, rather will reduce the same.

	<p>the problems of flooding or water logging in any way?</p>	
2.9	<p>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)</p>	<p>Ground water extraction will be done with prior permission from CGWA. However, ground water recharging is proposed through rain water harvesting, so, there will be positive impact on ground water levels. Ground water table is more than 26 m.</p>
2.10	<p>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)</p>	<p>During the construction phase, runoff from the construction site is not allowed into the roadside. It is collected in a tank & after pre-treatment it is being reused for sprinkling, etc.</p>
2.11	<p>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)</p>	<p>During construction phase, Adequate measures are being taken to channelize such storm water and the same is collected in a tank & after pre-treatment it will be reused for sprinkling, curing etc. During operation phase Storm water, will be channelized to rainwater harvesting pits proposed for the Colony. Individual RWH pit will be developed by the individual plot owner. For the common area, there will be 4 RWH Pits.</p>

2.12	Will the deployment of construction laborers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)	Mobile toilets shall be provided for labourers during construction period. The waste shall be disposed off to septic tank via soak pit. Washing area shall be cleaned and hygienic condition shall be maintained.
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)	<p>Waste water during construction phase from labours shall be discharged into septic tank followed by soak pit.</p> <p>In the colony, after expansion the generation of waste water will be about 3324 KLD. The generated sewage will be treated in in-house Sewage Treatment Plant capacity of 4200 KLD. The STPs shall be based on Moving Membrane Reactor (MMR) process. The treated water of 2070 KLD shall be utilized for flushing, gardening & miscellaneous purposes.</p> <p>Approx. 52 % of treated water will be recycled for use. Excess treated water of 1088 KLD shall be disposed off in sewer.</p>
2.14	Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.	Dual Plumbing line will be provided in the Colony for reuse of treated water.

3. VEGETATION

3.1	<p>Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any)</p>	<p><u>Core Zone of existing land:</u> For existing land area of 896123.39 sqm (221.44 acre) development work of infrastructure facilities have already been done. No vegetation exists at site.</p> <p><u>Core Zone of additional land:</u> No vegetation exists at site.</p> <p><u>Buffer Zone:</u></p> <table border="1" data-bbox="675 584 1254 768"> <tr> <td>Kachnar</td> <td>Mango</td> <td>Gulmohar</td> </tr> <tr> <td>Ashok</td> <td>Bottle Brush</td> <td>Kadam</td> </tr> <tr> <td>Neem</td> <td>Imli</td> <td>Amaltas</td> </tr> <tr> <td>Palm</td> <td>Babool</td> <td>Kikar</td> </tr> </table>	Kachnar	Mango	Gulmohar	Ashok	Bottle Brush	Kadam	Neem	Imli	Amaltas	Palm	Babool	Kikar
Kachnar	Mango	Gulmohar												
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Neem	Imli	Amaltas												
Palm	Babool	Kikar												
3.2	<p>Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)</p>	<p>No vegetation exists at site.</p>												
3.3	<p>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)</p>	<p>There will not be any kind of impact of this project on site features.</p> <p>The Shelter belt for the proposed project has been planned to provide a clean, healthy and beautiful green environment for the people to live in within the proposed project site.</p> <p>To minimize the impact, the provision of plantation area 224028.4 sqm, with lawns, ornamental plants and trees shall be provided.</p>												

4. FAUNA

4.1	<p>Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for</p>	<p><u>Core Zone of existing land:</u> For existing land area of 896123.39 sqm (221.44 acre) development work of infrastructure facilities have already been done. No Fauna exists at site.</p>
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	their movement? Provide the details.	<p><u>Core Zone of additional land:</u></p> <p>The proposed site is an open land and there will be only some burrowing animals in existing conditions. This place is not the habitat for local fauna. There is no displacement or any other effect on the local fauna due to proposed project activities.</p> <p><u>Buffer Zone:</u> There are No wild life sanctuaries within 10 km radius of the project site.</p>
4.2	Any direct or indirect impacts on the avifauna of the area? Provide details.	As there is no distinct plantation at site, hence no avifauna exist at site. However, proper landscaping shall be done to provide a clean, healthy and beautiful green environment for the population. Common native variety of trees and ornamental flowering species will be planted in the green space which will attract avifauna & hence, will have direct positive impact on the local avifauna and will provide shelter to local birds.
4.3	Prescribe measures such as corridors, fish ladders etc. to mitigate adverse impacts on fauna	Not applicable

5. AIR ENVIRONMENT

5.1	<p>Will the project increase atmospheric concentration of gases & result in heat islands?</p> <p>(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)</p>	<p>The traffic will increase due to operation of Colony. Increased traffic generation of vehicles due to project will not cause significant increase in atmospheric concentration of gases and do not result in heat island formation. Tree plantation in the Colony will be provided such that the impact of air pollution shall be minimized.</p> <p>After Expansion, total D.G. Sets of capacities 7 X 250 KVA (Existing-5 X 250 KVA & Proposed- 2 X 250 KVA capacity) + 75 KVA at site office, 62.5 KVA at OHSR + 15 KVA at Marketing Office will be installed in the Colony which will be operated during power cut only. Ventilation system will also be provided in STP room.</p>
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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.	During construction phase sprinkling is being done which reduce the dust generation. No odour is generated at site. Smoke will be generated from the operation of DG sets. Proper emission standards will be maintained as per CPCB guidelines. Ventilation system will also be provided in STP room.
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.	The optimum parking provision is proposed within the site on surface. Hence, there will be no shortage of parking space for vehicles.
5.4	Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.	The project is well connected to NH-01 & by a service road. The main entry/ exit of the project will be from the adjacent 60 m wide road & the 24-m wide road passing through the project site. All internal roads will be 6 m wide. It will be good enough for better movement of vehicles. It is also ensured that street lighting will be installed along the road to avoid any accident.
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.	During construction phase, noise barriers shall be installed to reduce traffic noise & vibration and during operation phase, shelter belt developed within the Colony will mitigate the traffic noise. Proper care shall be taken during design that there will not be any increase in traffic noise by providing single-way traffic movement, hence no honking within the Colony will be maintained. The foundation shall be made very hard and paved with rubber flooring to minimize the vibration, also all other measures are being adopted during designing that there will not be any causes of vibrations during the traffic density.

5.6	<p>What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.</p>	<p>There would be slight impact of DG sets on noise levels, vibration and in ambient air quality around the project site.</p> <ol style="list-style-type: none"> 1. All the DG Sets of the proposed project would be acoustically enclosed and will be kept in acoustically treated room. 2. Stack height as per C.P.C.B. norms to reduce the impact on air quality around the project site will be provided. 3. The noise from DG sets will meet the desired standard as per C.P.C.B. guidelines. Low Sulphur fuel will be used to run these DG sets. 4. Vibration pads will be used to run these DG sets to minimize the vibration effect.
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6. AESTHETICS

6.1	<p>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?</p>	<p>The open land does not have any scenic amenity or beauty. Construction of the Residential Plotted Colony will increase the beauty of the area by having proper landscaping. Yes, all considerations have been taken into account by the proponents.</p>
6.2	<p>Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?</p>	<p>The project site surrounding is a developing area. No such structures exist at site; however, few buildings are under construction in the surrounding areas. The construction will be done as per the sanctioned building plans, master plan & Environment Clearance, hence, no adverse impact on the existing structures is envisaged. Hence, there is no need of any consideration.</p>
6.3	<p>Whether there are any local considerations of urban form & urban design influencing the</p>	<p>There are no typical urban form & urban design influencing the design criteria.</p>

<p>design criteria? They may be explicitly spelt out.</p> <p>Are there any anthropological or archaeological sites or artifacts nearby?</p> <p>State if any other significant features in the vicinity of the proposed site have been considered.</p>	<p>No there is no anthropological or archaeological site or artifacts near the site.</p> <p>All significant features have been considered.</p>
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7. SOCIO-ECONOMIC ASPECTS

7.1	<p>Will the proposal result in any changes to the demographic structure of local population? Provide the details.</p>	<p>The proposed project is an expansion of Residential Plotted Colony & thus there will be influx of population in the form of residents, staffs & visitors. Thus, there will be some change in the demographic structure of the area.</p>	
7.2	<p>Give details of the existing social infrastructure around the proposed project.</p>	<p>Hospital</p> <p>Pahuja Hospital Patel Nagar</p> <p>Prem Hospital Bishon Sarup colony</p> <p>Places of worship</p> <p>Shiv Mandir, Model Town</p> <p>Hazrat Bu Ali-Shah Qulandar, Sethi Chawk area Panipat</p> <p>Community Facilities</p> <p>Post office at Patel Nagar</p> <p>Main Post office, Industrial Area, Panipat</p> <p>Schools</p> <p>MASD Public School, Faridpur</p> <p>The Millennium School in Sector-13</p> <p>Rishikul School, Model Town</p>	<p>3.5 Km S</p> <p>4.0 km S</p> <p>4.2 km S</p> <p>5.0 Km SE</p> <p>4.5 Km S</p> <p>4.5 Km SE</p> <p>0.6 Km NE</p> <p>2.7 km E</p> <p>4.5 Km S</p>

7.3	Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?	The proposed Colony will be constructed within the designated site as per the defined building by-laws of government authority. There is no sacred site or cultural heritage site within vicinity of proposed project; hence no adverse impacts are envisaged.
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8. BUILDING MATERIALS

8.1	<p>May involve the use of building materials with high-embodied energy.</p> <p>Is the construction materials produced with energy efficient processes?</p> <p>(Give details of energy conservation measures in the selection of building materials and their energy efficiency)</p>	<p>The major materials required for construction of the project are steel, cement, bricks, flooring tiles/ stones, sanitary and hardware items, electrical fittings, etc.</p> <p>Energy efficient building material are being used.</p>
8.2	<p>Transport and handling of materials during construction may result in pollution, noise & public nuisance.</p> <p>What measures are taken to minimize the impacts?</p>	<p>Yes, transportation and handling of material results in air & noise pollution; however, it shall be minimized by covering material by the tarpaulin and ensuring PUC certificate of vehicles and good condition silencers.</p>
8.3	<p>Are recycled materials used in roads and structures?</p> <p>State the extent of savings achieved?</p>	<p>The excavated soil & debris of construction material shall be used in backfilling, roads etc.</p>
8.4	<p>Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.</p>	<p>The solid waste shall be disposed off as per Municipal Solid Waste (Management and Handling) Rules, 2016. Detail are given in Pre-Feasibility report.</p>

9. ENERGY CONSERVATION

9.1	<p>Give details of the power requirements, source of supply, backup source etc.</p> <p>What is the energy consumption assumed per square foot of built-up area?</p> <p>How have you tried to minimize energy consumption?</p>	<table border="1"> <thead> <tr> <th>Particular</th> <th>Existing</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Power Source</td> <td>Uttar Haryana Bijli Vitran Nigam Ltd.</td> <td>Uttar Haryana Bijli Vitran Nigam Ltd.</td> </tr> <tr> <td>Total Power load</td> <td>16000 KW</td> <td>22 MVA</td> </tr> <tr> <td>No. of DG sets</td> <td>5 X 250 kVA</td> <td>7X 250 kVA + 75 KVA at site office, 62.5 KVA at OHSR + 15 KVA at Marketing Office</td> </tr> </tbody> </table>	Particular	Existing	Total	Power Source	Uttar Haryana Bijli Vitran Nigam Ltd.	Uttar Haryana Bijli Vitran Nigam Ltd.	Total Power load	16000 KW	22 MVA	No. of DG sets	5 X 250 kVA	7X 250 kVA + 75 KVA at site office, 62.5 KVA at OHSR + 15 KVA at Marketing Office	
		Particular	Existing	Total											
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		Total Power load	16000 KW	22 MVA											
No. of DG sets	5 X 250 kVA	7X 250 kVA + 75 KVA at site office, 62.5 KVA at OHSR + 15 KVA at Marketing Office													
<p>During power failure D.G. Sets will start automatically. Fuel consumption for DG Sets has been calculated to be 625 lt/hr (when in operation) of Ultra Low Sulphur Diesel. As per the latest C.P.C.B. norms, D.G. Sets have to be installed in acoustic enclosure room and silencer.</p> <p>LED, T5 lamps, solar power, energy efficient motors and pumps shall be used to conserve the electrical energy & to minimize the consumption of non-renewable fuel.</p>															
9.2	<p>What type of and capacity of power back-up do you plan to provide?</p>	<p>Total capacity of DG Sets after expansion: 7 X 250 KVA (Existing-5 X 250 KVA & Proposed- 2 X 250 KVA capacity) + 75 KVA at site office, 62.5 KVA at OHSR + 15 KVA at Marketing Office</p> <p>Fuel: Ultra Low Sulphur diesel.</p> <p>All shall be installed to provide power backup during power failures.</p>													
9.3	<p>What are the characteristics of the glass you plan to use?</p> <p>Provide specifications of its characteristics related to both</p>	<p>Plain openable glass will be used.</p>													

	short wave and long wave radiation?	
9.4	<p>What passive solar architectural features are being used in the building?</p> <p>Illustrate the applications made in the proposed project.</p>	<p>Building design and envelope is being optimized through selection of appropriate wall and roof construction and through adoption of solar measures.</p>
9.5	<p>Does the layout of streets & buildings maximize the potential for solar energy devices?</p> <p>Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building? Substantiate with details.</p>	<p>Yes, the layouts of buildings have been designed to maximize the potential for use of solar lighting per day devices.</p> <p>Yes, solar power based street & common area lights are proposed</p>
9.6.	<p>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?</p>	<p>Solar Measures shall be adopted to reduce heating up of building envelope. Louvers and sunshades will be used around windows in order to protect from direct sunlight.</p>
9.7	<p>Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details.</p> <p>Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions?</p> <p>Are you using CFC and HCFC free chillers? Provide specifications</p>	<p>Suitable energy optimization will be adopted during the calculation of energy load of the proposed project. The space heating load will be minimized using solar structure and suitable buildings envelop material. Uses of incandescent lamp and halogen lamps have been avoided and energy efficient LED shall be used for all common area.</p> <p>The diesel generator sets shall be automatically controlled to optimize their usage based on the actual load requirements at any time. Space conditioning will be provided as per norms of National Building Code – Part 8; Building Services Section 3–Mechanical Ventilation. Lighting intensity</p>

		will be done as per the National Building Code Guidelines. Not applicable.												
9.8	<p>What are the likely effects of the building activity in altering the micro-climates?</p> <p>Provide a self-assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?</p>	No significant effect is envisaged on the surrounding environment of project. Increased traffic generation and use of diesel generators sets in the project will not cause significant increase in atmospheric concentration of gases and will not result in heat island formation.												
9.9	<p>What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration?</p> <p>Give details of the material used and the U-values or the R values of the individual components.</p>	<table border="1"> <thead> <tr> <th>S. No</th> <th>BUILDING MATERIAL PROPOSED WITH U & R VALUES</th> <th>'R' Values (in Sq m. Deg C/ Watts)</th> <th>'U' Values (in Watts/ Sq m. Deg C)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Wall Flyash Brick & ACC Blocks wall (230 mm thick), both side thick sand cement plaster (12-18mm) with insulation.</td> <td>2.28</td> <td>0.44</td> </tr> <tr> <td>2.</td> <td>Roof 200 mm RCC slab with mud phuska & clay tiles with 75 mm insulation.</td> <td>2.04</td> <td>0.49</td> </tr> </tbody> </table>	S. No	BUILDING MATERIAL PROPOSED WITH U & R VALUES	'R' Values (in Sq m. Deg C/ Watts)	'U' Values (in Watts/ Sq m. Deg C)	1.	Wall Flyash Brick & ACC Blocks wall (230 mm thick), both side thick sand cement plaster (12-18mm) with insulation.	2.28	0.44	2.	Roof 200 mm RCC slab with mud phuska & clay tiles with 75 mm insulation.	2.04	0.49
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9.10	<p>What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.</p>	NBC 2005 Guidelines for Residential Plotted Colony Project shall be followed.												

9.11	If you are using glass as wall material provides details and specifications including emissive and thermal characteristics.	No, Plain openable glass will be used
9.12	What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.	All the window and door will be airtight quality, hence there will be no air infiltration.
9.13	To what extent the non-conventional energy technologies are utilized in the overall energy consumption? Provide details of the renewable energy technologies used.	Solar energy will be used inside the Residential Plotted Colony.

10. ENVIRONMENT MANAGEMENT PLAN

10.1	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.	Environment Management Planning is given in the PFR.
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CONCEPTUAL PLAN

Background of the project

The proposed Residential plotted colony is a project located at village Kabri and Faridpur, Sec-36-39, Panipat, Haryana. The land has been licensed by DTCP vide license no. no. 63-87 and 89-105 of 2007 dated 11.02.2007 of area measuring 221.446 acres & license no. 121 of 2012 valid upto 12.12.2016 for additional area admeasuring 27.918 acre and license no. 05 of 2017 for 42.4025 acre to M/s Taneja Developers & Infrastructure Ltd (now known as M/s TDI Infratech Limited) for the development of Residential Plotted Colony. There is a Collaboration agreement between M/s Taneja Developers & Infrastructure Ltd. & others. The proposed project has already been granted EC for 1610646.30 sq m (398 acres) vide letter no. 21-577/2007-IA.III dated 7/01/2008 to M/S Taneja Developers & Infrastructural Ltd. for Sec-36&37. However, development has been done only on land area 221.44 acre on license no. 63-87 and 89-105 of 2006 dated 11-02-2007.

Then TOR for the proposed project was granted by SEAC Haryana vide F.No. HR/SEAC/686/1450 dated 15-09-2016 for the expansion of Residential plotted colony having plot area 1009101.95 sqm and built-up area 2018203.88. Now, we have again granted an additional land of 171594.437 sqm (42.4025 acre) by DTCP due to which the final built-up has been increased from 2018203.88 to 2266844.21 and as per the new notification dated 9th December 2016 the project falls under the Category 8(b), sub category A. Hence, now the project is Amendment in ToR.

Activities of the project will be -Residential, commercial, taxi stand, plotted facilities, EWS.

The net plot area is distributed as given below:

S.no	Coverage type	Existing area (sq m)	Proposed area (sq m)	Additional Details (sqm)	Total area (Sqm)
1	Ground coverage	492867.86	62138.21	94378.10	649384.17
2	Green area	179224.67	33893.56	10910.17	224028.4
3	Road and open area	224030.86	16946.79	66306.167	307283.81
	Net plot area	896123.39 (221.44 Acre)	112978.56(27.918 Acre)	171594.437 sqm (42.2025 Acre)	11880696.3 87

Description	Existing Details (221.44 Acre)	Proposed Details (27.918 Acre)	Additional Details (42.4025 Acre)	Total (291.7665 Acre)
Plot Area	8,96,123.39 sqm	112978.56 sqm	171594.437 sqm	1180696.387 sqm
Ground Coverage (Proposed)	492867.86 sqm	62138.21 sqm	94378.10 sqm	649384.17 sqm
F.A.R (Proposed)	1299378.91 sqm	163818.91sqm	248640.33 sqm	1711838.15 sqm
Non-FAR AREA	492867.86 sqm	62138.21 sqm	0	555006.07 sqm
Built-up Area	1792246.77 sqm	225957.11 sqm	248640.33 sqm	2266844.21 sqm
Green Area	179224.67 sqm	33893.56 sqm	10910.17 sqm	224028.4 sqm
Height of building	14m	14m	14m	14m
POPULATION				
Residents	20286	2961	4964	28211
Staff	250	50	50	350
Visitors	2173	317	280	2770
POWER REQUIREMENT & BACK-UP DETAILS				
Source of Power		Uttar Haryana Bijli Vitran Nigam Ltd.		
Total Power load	16000 KW	3000 KW	-	22 MVA
No. of DG sets	5x250 KVA	250x2 KVA	75 KVA, 62.5 KVA, 15 KVA	7x250 KVA+ 75 KVA+62.5 KVA+ 15 KVA
WASTE WATER, RAIN WATER & SOLID WASTE DETAILS				
Total water requirement	3612 KLD	450 KLD	713 KLD	4775 KLD
Fresh Water Requirement	1948 KLD	284 KLD	473 KLD	2705 KLD
Treated water Reuse	1664 KLD	166 KLD	240 KLD	2070 KLD
Total waste water generation	2393 KLD	350 KLD	581 KLD	3324 KLD
STP capacity	3000 KLD (1000 KLD Installed)	500 KLD	700 KLD	4200 KLD
No. of RWH pits	-	-	-	4
Municipal Solid waste generated	9491 Kg/day	1388 Kg/day	2284 Kg/day	13163 Kg/day

Other project detail given in Pre-Feasibility report

Details of expansion area given below:

Height of the Building:

The max. height of the building is 14 m.

Population Details:

The total population of the complex has been estimated to be 31331, out of which the resident population-28211, staff-250, visitor-2770

Power details:

The total electric load of the colony is 22 MVA which will be sourced through Uttar Haryana Bijli Vitran Nigam Ltd. In case of power failure, power backup will be provided through DG sets 7 x 250 KVA+75 KVA+62.5 KVA+15 KVA (Existing: 5 x 250 KVA & Proposed: 2 x 250 KVA+ 75 KVA+62.5 KVA+ 15 KVA) will be kept as stand by. The DG sets will be located in the basement.

Water Details:

During construction phase treated water will be sourced through nearby STP. During operation phase water will be taken from HUDA supply. The total water requirement of the complex is 4775 KLD out of which fresh water requirement is 2705 KLD and rest is treated water. The total waste water generation is 3324 KLD which will be treated in the STP of 4200 KLD capacity. The treated water coming out of the STP is 3158 KLD out of which 2070 KLD is being reused & 1088 KLD will be discharged in the sewer.

Rainwater harvesting details

Individual RWH pit is developed by the individual plot owner. For the common area, there will be 4 RWH Pits.

Solid waste details:

The solid waste that will be generated from the complex is 13163 kg/day out of which organic waste will be 9214 kg/day and 3949 kg/day will be recyclable waste.

Hazardous waste in the complex will be used oil from DG sets which is estimated to be 35 lit/day

E-waste generation from the complex will be 4-5 kg/day.

Cost of project: The total estimated cost of the project is 57.6 crores.

PRE-FEASIBILITY REPORT WITH EXECUTIVE
SUMMARY
OF
**Amendment in ToR for EXPANSION of
“Residential Plotted Colony”**

AT
VILLAGE- KABRI & FARIDPUR, Sector-37-39, PANIPAT,
Haryana.

BEING DEVELOPED BY:

M/s Taneja Developers & Infrastructure Pvt. Ltd.
9, K.G, Marg, New Delhi-110001

Prepared by:

Environmental Consultant

M/S PERFECT ENVIRO SOLUTIONS PVT. LTD.

(NABET Registered Vide list of accredited consultants organizations/ Rev 45/5th August, 2016
at S.No-96)

502-507, NN Mall, Sector-3, Rohini, New-Delhi-85

Phone: 011-47528467; 011-47021086

Fax: - 011-475284

CONTENT

1. Introduction of the project and Background Information.

- Introduction
- Brief description of nature of the project
- Need of the project
- Employment Generation (Direct and Indirect) due to the project

2. Project Description

- Location (map showing general location, specific location and project boundary & project site layout) with coordinates & Connectivity
- Alternative sites considered and basis of selecting proposed site
- Size of project
- Project Description with process details
- Raw materials required
- Availability of water and source
- Power requirement and source
- Waste generation and Management

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- Topography
- Existing land use pattern and shortest distance from the periphery of the project to periphery of the Eco sensitive areas
- Existing infrastructure around the site
- Soil Quality
- Climatic data from secondary sources

4. Planning brief

- Planning concept
- Amenities/facilities

5. Proposed Infrastructure

- Residential area
- Green belt
- Drinking water management
- Sewerage system

6. Project Schedule and Cost Estimates

- Likely date of start of construction and likely date of completion
- Estimated project cost

7. Benefits of the Project

PRE-FEASIBILITY REPORT

INTRODUCTION OF THE PROJECT & BACKGROUNDPUND INFORMATION

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Activities of the project will be -Residential, commercial, taxi stand, plotted facilities, EWS.

Brief Description of nature of the project

The proposed complex will ensure a better life by providing all the vital amenities a family needs at close vicinity. It is endeavor to restore life's harmony, completeness and fulfillment in the living process.

Need of the Project

- It will increase infrastructure of the area & will provide better living style.
- It will provide housing facility with all basic amenities to various classes of people.
- It will provide healthy, green & safe premises for living.

Employment Generation

The colony will provide employment to around 200 labors during construction phase and employment opportunity as staff working in the colony and shelter to around 31331 people during operational phase.

Project Description

Site Location and connectivity

Site Location: Sector-36-39, Village-Kabri & Faridpur, District-Panipat, Haryana

Nearest railway station: Babar Railway Station: 2.1 Km NE;

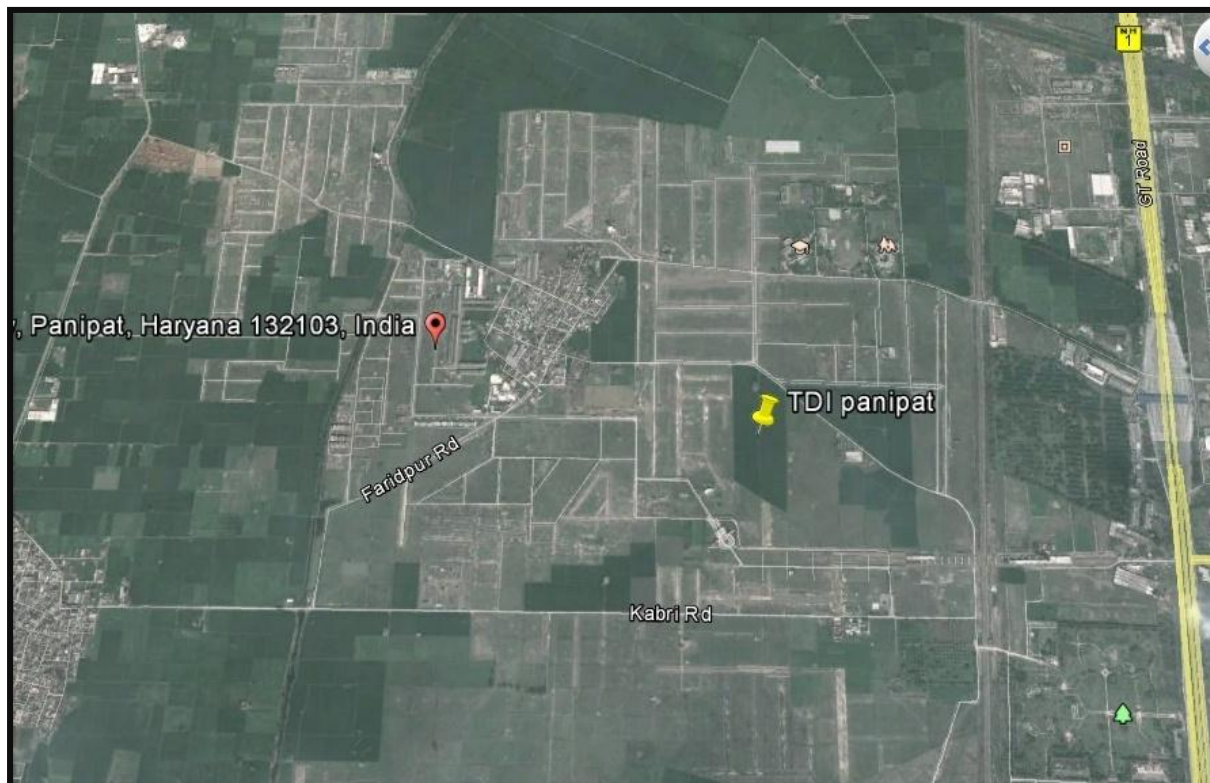
Kohand Railway Station: 7.0 Km NE

Nearest airport: IGI Airport, Delhi: 97 Km NE

Nearest Highway: NH-1: 1.2 Km E

SH-16- 6.0 Km S

Location Map & Google Image:



ALTERNATIVE SITES CONSIDERED AND BASIS OF SELECTING THE PROPOSED SITE

The land is located in Approved Sector 36-39 for development of Residential Plotted Colony by DTCP. After assessing the feasibility of various sites, this site was chosen for the development.

Size of the project

Built-up area of the project is 2266844.21 sqm.

Project detail given below:

Description	Existing Details (221.44 Acre)	Proposed Details (27.918 Acre)	Additional Details (42.4025 Acre)	Total (291.7665 Acre)
Plot Area	8,96,123.39 sqm	112978.56 sqm	171594.437 sqm	1180696.387 sqm
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WASTE WATER, RAIN WATER & SOLID WASTE DETAILS				
Total water requirement	3612 KLD	450 KLD	713 KLD	4775 KLD
Fresh Water Requirement	1948 KLD	284 KLD	473 KLD	2705 KLD
Treated water Reuse	1664 KLD	166 KLD	240 KLD	2070 KLD
Total waste water generation	2393 KLD	350 KLD	581 KLD	3324 KLD
STP capacity	3000 KLD (1000 KLD Installed)	500 KLD	700 KLD	4200 KLD
No. of RWH pits	-	-	-	4
Municipal Solid waste generated	9491 Kg/day	1388 Kg/day	2284 Kg/day	13163 Kg/day

Raw Material Required:

ADHESIVE
AGGREGATE- BRICK
AGGREGATE- OVER BURNT
AGGREGATE-STONE
AGGREGATE-STONE CHIPPING
ALUMINIUM

ASBESTOS CEMENT PRODUCTS
BITUMEN FELT FIBRE BASE
BITUMEN HOT SEALING COMPOUND
BITUMEN & COAL TAR
BRACKETS
BRICKS
BRUSHES
CEMENT
LIME
CAUSTIC SODA
WATER PROOFING COMPOUND
POLYMER
HYDROCHLORIC ACID
ARALDITE
HARDNER
FLOW CONTROL AGENT
PLASTICIZER
BHUSA
HESSIAN CLOTH
SPUN YARN
BLEACHING POWDER
CRAMP
DISTEMPER
FLY ASH
FITTINGS (FOR DOOR & WINDOWS)
BUTT HINGES
TOWER BOLT
BRASS FITTINGS
CASEMENT STAYS
CUPBOARD LOCK
HASPS AND STAPLES
HINGES (SINGLE ACTING SPRING)
BUTT HINGES
HANDLES
HASPS AND STAPLES
SCREWS
STAIN LESSSTEEL FITTING
MS PIPE

FASTNER
GLASS
MARBLE CHIPS
MARBLE SLABS
MUSLIN CLOTH

Energy Conservation:

Following are the measures adopted to conserve the energy:

- i. Day light provision shall be made by using openable windows (use of sunlight in lieu of conventional power).
- ii. We are proposing CFL lights only for common areas like corridors, lift, and lobby.
- iii. It is proposed to have dry type transformer located in basement.
- iv. Transformers will be having efficiencies as per ECBC Norms.

Solar Measures:

- i. External street lighting shall be provided by standalone solar panel.
- ii. Solar Water Heater will be used to meet 20 % of hot water requirement of the complex.

Approx. 20 % Energy shall be saved by adopting such measures.

WATER MANAGEMENT DURING OPERATION:

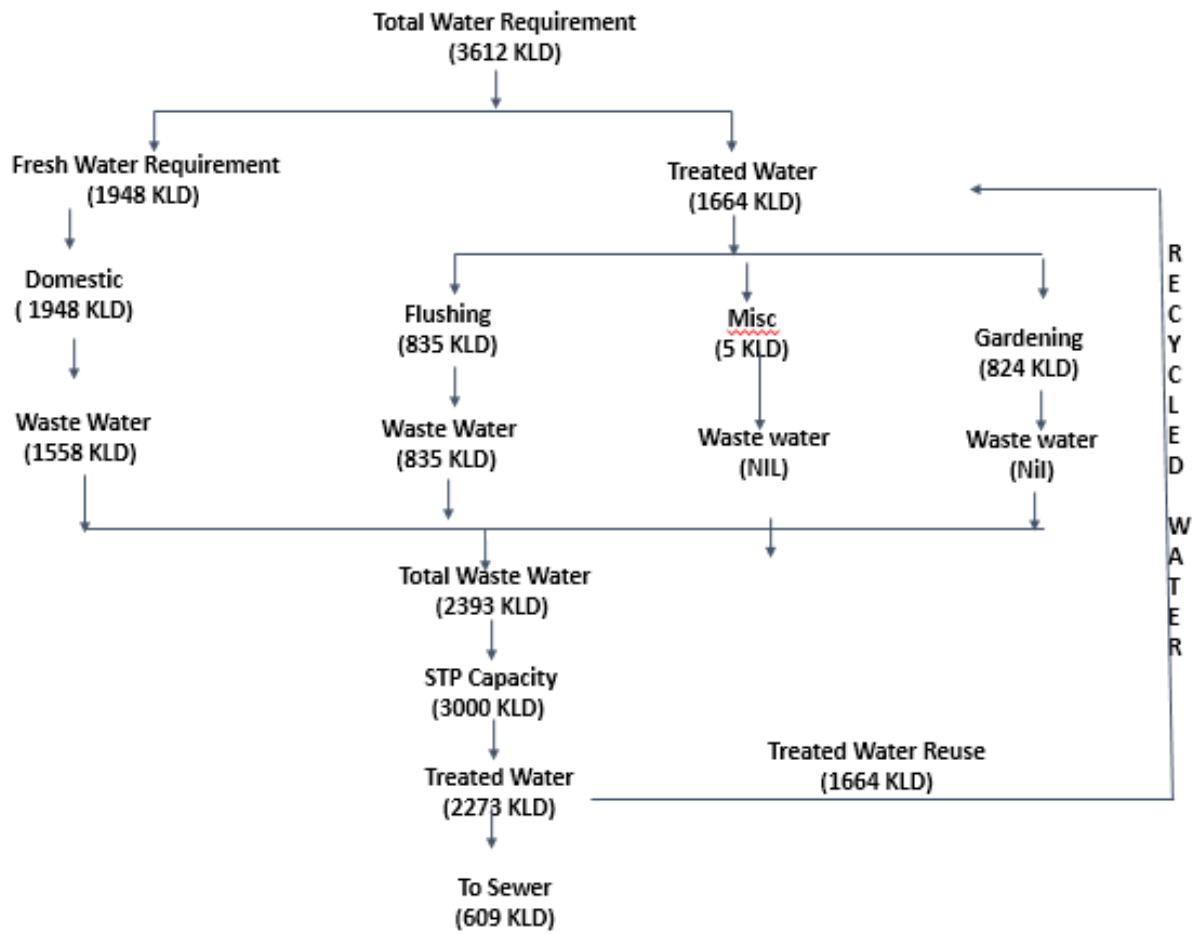
Total quantity of water requirement after expansion will be 4775 KLD (Existing- 3612 KLD & proposed- 450 KLD, Additional-713 KLD) out of which fresh water requirement will be 2705 KLD which will be met by Municipal supply. Water shall be used for domestic purpose, flushing, gardening and misc. purpose. The total water requirement breakup for the Residential Plotted Colony is given below.

WATER REQUIREMENT & MANAGEMENT (EXISTING):

Particular	Population	Factor in LPCD	Requirement in KLD	Domestic Use (KLD)	Flushing (KLD)	Waste Water in KLD
Domestic						
Resident	20286	135	2739	1917	822	
Staff	250	45	11	8	3	
Visitor	2173	15	33	23	10	
Total	24158		2783	1948	835	
Waste Water Discharge				1558 KLD	835 KLD	2393 KLD
Gardening			824			Nil
Misc.			5			Nil
Total			3612 KLD			2393 KLD

Table Error! No text of specified style in document.-1 Water Management

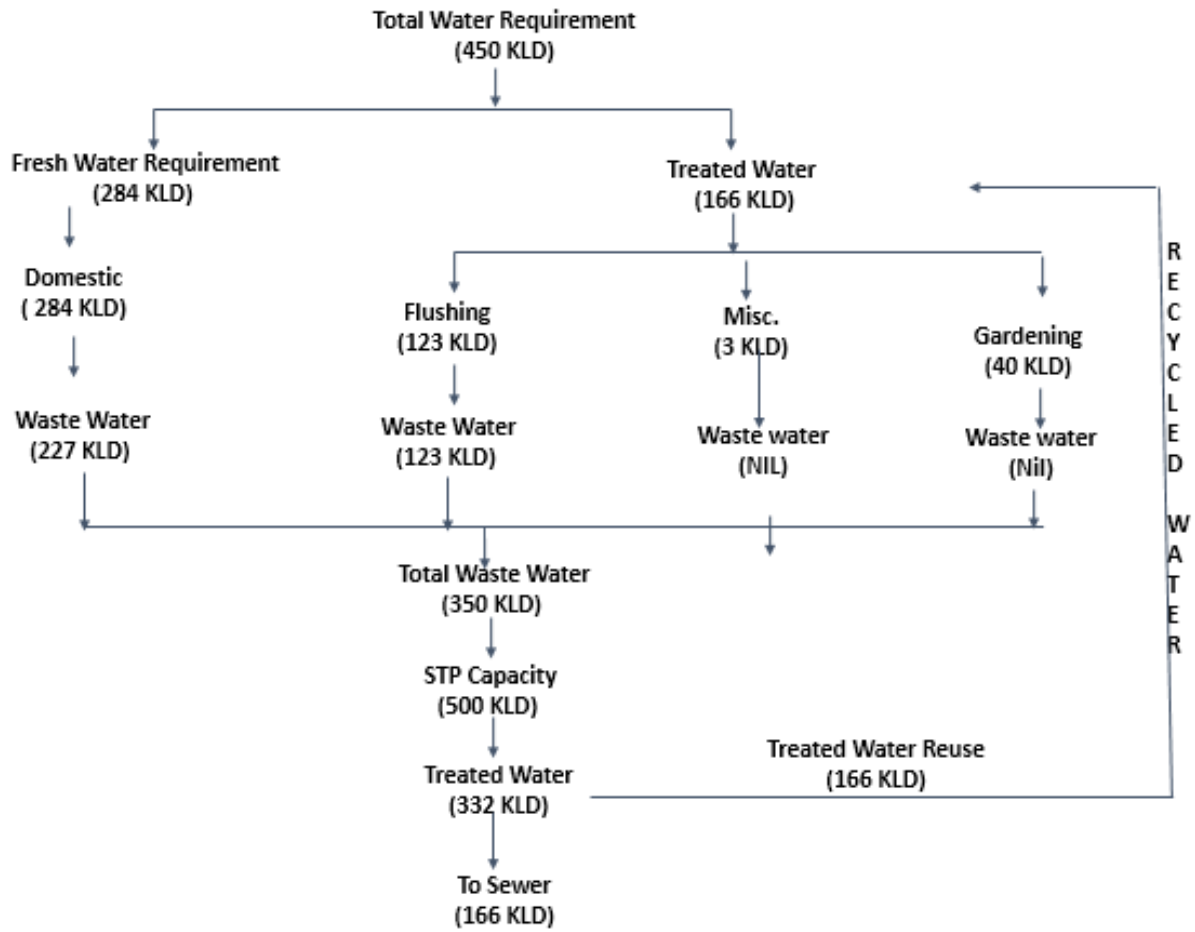
WATER BALANCE DIAGRAM (EXISTING)



WATER REQUIREMENT & MANAGEMENT (PROPOSED during TOR):

Particular	Population	Factor in LPCD	Requirement in KLD	Domestic Use (KLD)	Flushing (KLD)	Waste Water in KLD
Domestic						
Resident	2961	135	400	280	120	
Staff	50	45	2	1	1	
Visitor	317	15	5	3	2	
Total	3328		407	284	123	
Waste Water Discharge				227 KLD	123 KLD	350 KLD
Gardening			40			Nil
Misc.			3			Nil
Total			450 KLD			350 KLD

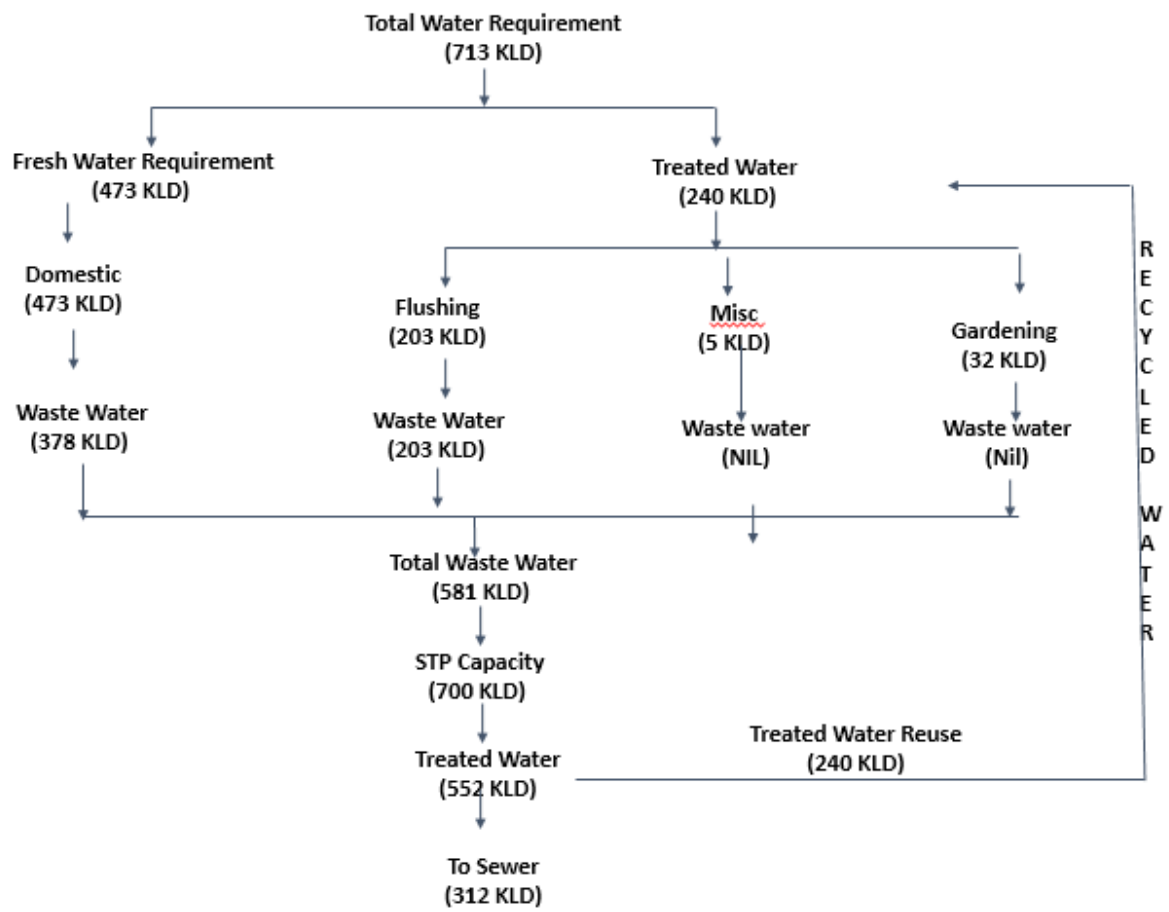
WATER BALANCE DIAGRAM (PROPOSED during TOR)



WATER REQUIREMENT & MANAGEMENT (Additional area of 42.4025 acre):

Particular	Population	Factor in LPCD	Requirement in KLD	Domestic Use (KLD)	Flushing (KLD)	Waste Water in KLD
Domestic						
Resident (Main+EWS)	4964	135	670	469	201	
Staff	50	45	2	1	1	
Visitor	280	15	4	3	1	
Total			676	473	203	581
Waste Water Discharge				378	203	
Gardening			32			0
Misc.			5			0
Total			713			581

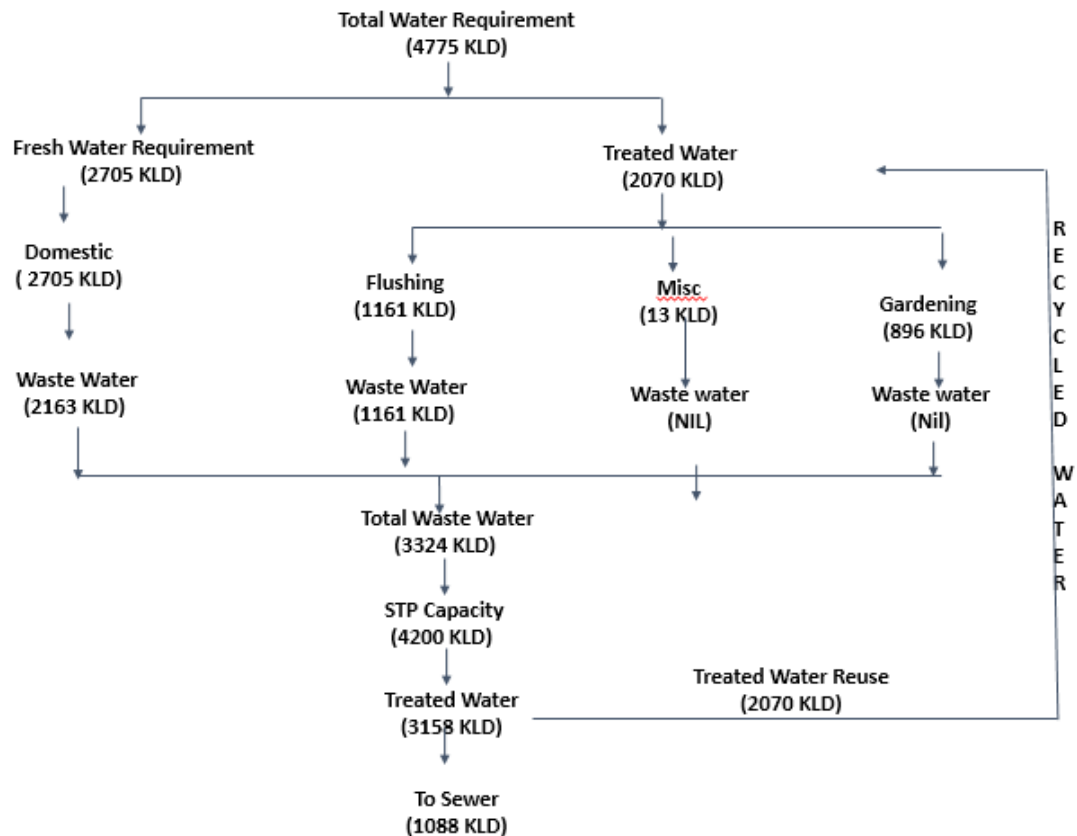
WATER BALANCE DIAGRAM (Additional)



WATER REQUIREMENT & MANAGEMENT (TOTAL AFTER EXPANSION):

Particular	Population	Factor in LPCD	Requirement in KLD	Domestic Use (KLD)	Flushing (KLD)	Waste Water in (KLD)
Domestic						
Resident (Main+EWS)	28211	135	3809	2666	1143	
Staff	350	45	15	10	5	
Visitor	2770	15	42	29	13	
Total			3866	2705	1161	
Waste Water Discharge				2163	1161	3324
Gardening			896			0
Misc.			13			0
Total			4775	2163	1161	3324

WATER BALANCE DIAGRAM (TOTAL AFTER EXPANSION)



SCHEME OF SEWAGE TREATMENT PLANT:

Total quantity of wastewater generation will be 3324 KLD. The treated water 2070 KLD shall be utilized for flushing, gardening & miscellaneous purposes. Excess treated water of 1088 KLD shall be sent to sewer line. In the colony, after expansion the waste water generated will be treated in in-house Sewage Treatment Plant capacity 4200 KLD. The STPs shall be based on Moving Media Reactor (MMR) process.

TREATMENT PROCESS:

DESIGN CRITERIA

The basic idea behind the **Moving Media Reactor** development is to have a continuous operating non-clogging media reactor which requires (1) No back-washing, (2) Has low head loss and (3) High specific bio film surface area. This was achieved by having the biomass to grow on small carrier elements that move along with the water in the reactor. The movement within the reactor is generated by aeration in the aerobic reactor. These bio-film carriers are made of special grade plastic having density close to that of water.

Apart from making the plant compact, the MMR employing moving media principle of the attached growth process makes the plant more user- friendly. The absence of sludge recycle frees the operator from the enormous task of measurement and monitoring MLSS levels in the tank and adjusting recycle ratios continuously, due to fluctuating inlet COD loads.

The plant has been designed to treat the raw sewage having following characteristics,

Flow	:	3324 KLD
pH	:	7.5-8.0
BOD	:	200-300 mg/l
COD	:	400-500 mg/l
TSS	:	100 mg/l

Treated sewage characteristics will be as follows:

pH	:	6.5-8.5
BOD	:	< 10 mg/l
COD	:	< 60 mg /l
TSS	:	< 10mg/l

Peak factor of 2.5 has been considered. Also, the duration of peak loads is considered as two hours in the morning time and two hours in the evening time. The plant is designed to handle hydraulic load at peak flow conditions.

BENEFITS OF USING MMR TECHNOLOGY

The sewage treatment scheme offers some distinct advantage over other processes. The scheme is proven, under a variety of operating conditions, and is highly flexible in operation.

1] Small space requirement

The concept of compact MMR based sewage treatment plants is used so that expensive land requirement is reduced. A conventional treatment requires large space, and large operating force. The MMR based plants individually occupy much less space, making the plants more manageable.

2] Lower operating power requirement

The system utilizes aeration tanks of much smaller size, thereby reducing the overall power required in aerating the raw sewage. Since the reactor depth is more, efficient transfer of oxygen takes place, thereby reducing the overall power consumed in treatment.

3] Low temperature sustaining capability.

One of the very important parameters in selecting a particular process is that the system must operate in low temperatures, which are experienced for at least 5 – 8 months in a year. The temperature can drop to nearly 2-30C. This system is adopted with latest and proven technology, have much smaller reactor area. Additionally, hot air is bubbled for the purpose of aeration.

4] Simplicity in operation and maintenance

The system adopted has much less moving parts (only pumps and blowers, and centrifuge). Further there is no moving part inside the reactor. This gives the advantage of continuously running the reactor system, under widely fluctuating conditions. All the pumps / blowers and centrifuges are manufactured in India only, and hence there is no problem of availability of spares. All the maintenance on the mechanical systems can be done with normal skilled mechanics available.

The system is unique in operation, such that, only inlet and outlet parameters (i.e. raw sewage BOD / COD / TSS /TP and treated sewage BOD / COD / TSS / TP etc.) need to be analyzed. Since the reactor is self-sustaining, there is no requirement of recycling the biomass from the secondary clarifier. Hence, analysis such as MLSS / MLVSS / SVI (sludge volume index) / F / M ratio etc. is not required to be done. This greatly reduces the analytical load on the plant chemist / supervisor, and makes the system very simple to operate and control.

5] E-coli (coliform) removal

The reactor system adopted in STP is provided with removal of disease causing E-coli bacteria
Coliform removal

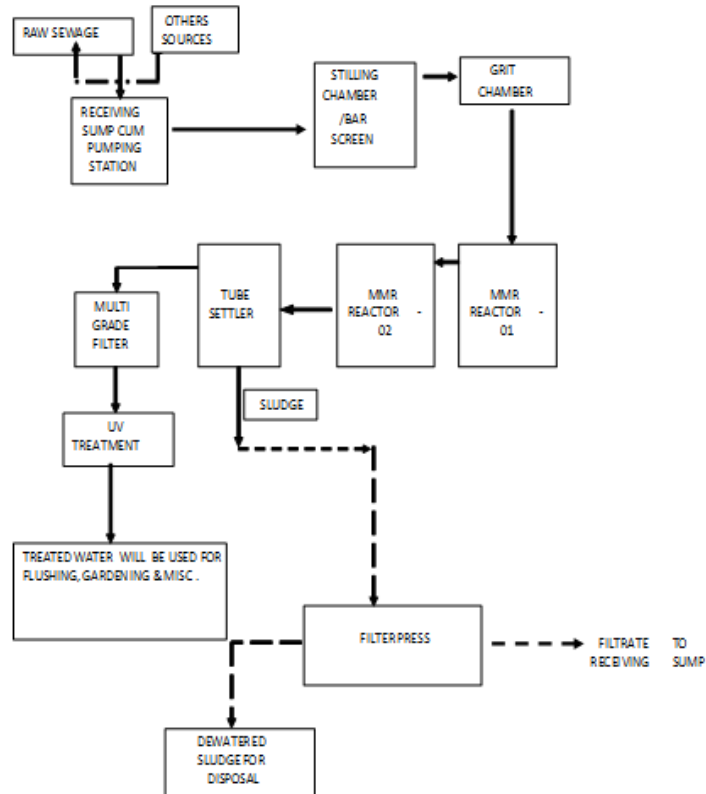
The outlet BOD of the bio-reactor system being very low (in other words, hardly any food is available to the E-coli), most of the coliform are killed in the reactor itself. Remaining coliform are killed by using UV treatment. The treated sewage from outlet will conform to WHO standards.

6] Sludge handling

The sludge generated in the reactors is totally digested. Since the F / M ratio in the reactors is very low, the excess sludge generation is very low. The excess sludge is dewatered in filter.

Hydraulic flow Diagram of STP is enclosed as Fig below:

SCHEMATIC DIAGRAM OF STP



Rainwater drainage system

The main source of ground water recharging in the study area is rainwater, which infiltrates into the ground through various lithological units present in the study area. RWH pits developed by individual flat owner. 4 number of rainwater harvesting pits have been installed for the common area. The runoff from the rooftop and storm water shall go to the recharge pits.

- **Scheme for Ground Water Recharging**

The rainwater will be diverted from the rooftop using rain water pipes to the surface/underground drainage network. The entire campus is sub-divided for recharging structures. The rainwater is diverted into the de-silting tank to remove inorganic impurities and the outflow of the de-silting tank is taken into the recharge well.

- **De-silting Tank**

The de-silting tank is used to remove silt and other floating impurities from rainwater. De-silting tank is like an ordinary container having provision for the inflow, outflow, and overflow. Apart from removing silt it holds the excess amount of water till it is soaked up by the recharging structure. The bottom of tank will have unpaved surface (layers of coarse sand) to allow standing water to percolate into soil. The rainwater collected in these de-silting chambers shall be utilized for horticulture.

- **Recharge well**

The recharge well consists pit size of dia=3.2m and effective depth of 3.5m. UPVC pipe of 18.90 mm dia. perforated will be lowered in the middle of the boreholes and the pit will be filled with gravel and pebbles consisting of boulders, gravel and coarse sand. The mouth of the PVC pipe shall be protected to avoid silt getting into it. The depth of the bore will depend on the soil condition/water strata. The schematic diagram is enclosed.

- It should be therefore concluded that there is no significant impact on surface water quality & hydrology of the area. The proposed rainwater-harvesting scheme will stabilize the groundwater table in the area.

Rain Water Harvesting Calculation:

Soil Quality: Silty loam

Infiltration rate: 20.3 mm/hr

Annual Rainfall: 723 mm

Peak Hourly Rainfall: 45 mm/hr

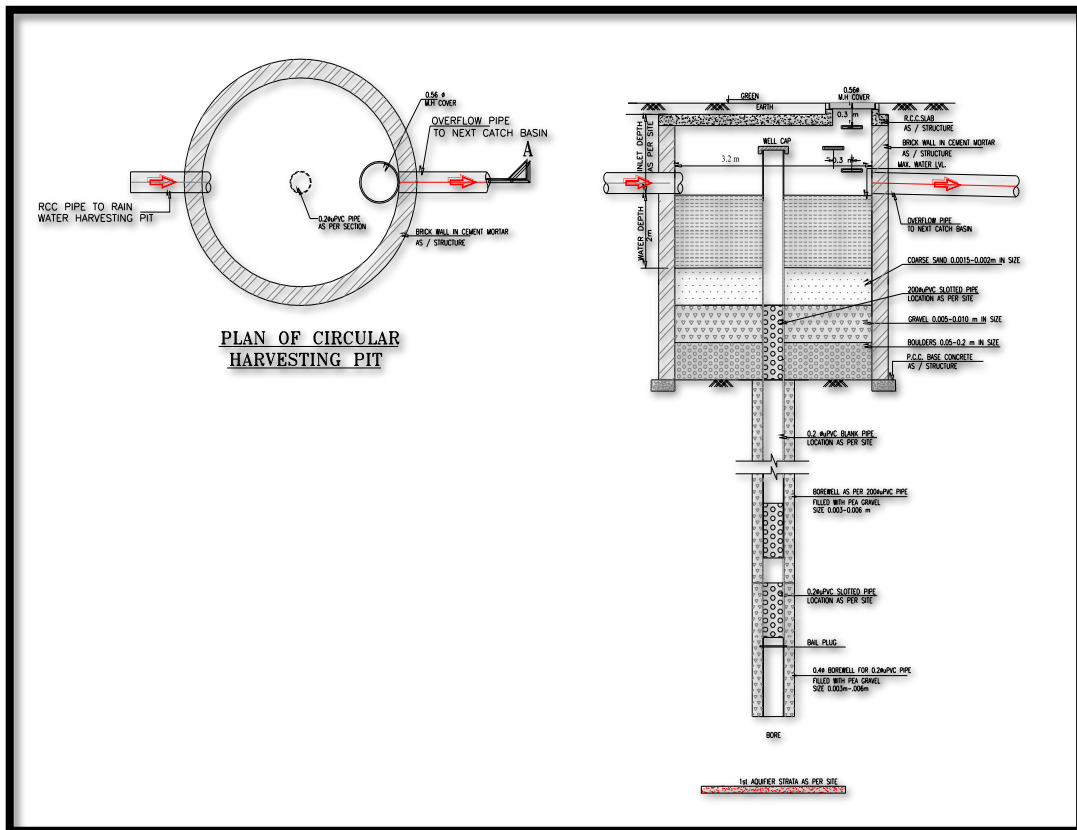
Ground Water Level: 18-20 m

No. of Rain Water harvesting for the complex: 4

Size of Pit: Dia-4.0 m, Depth-3.0 m

S. No.	Description of Area	Area Considered (Sq. m)	Runoff coefficient	Intensity of rainfall (mm/hr) Peak hourly 45 mm/hr	Total volume of water available for rain water harvesting (in cu m)
1.	Ground Coverage	649384.17	0.9	15	8766.6
2.	Road, pavements & Open areas	307283.81	0.7	15	3226.4
3.	Green/Unpaved areas	224028.4	0.2	15	672.08
	GRAND TOTAL	1180696.387			12665.08

Since it is a residential plotted colony thus, individual plot owner will install the rainwater harvesting pits. 4 common pits will be provided and water will be channelized to storm water line.



NOISE ENVIRONMENT:

There will be DG sets of 7 x 250 KVA, 75 KVA at site office, 62.5 KVA at OHSR, 15 KVA at Marketing Office (Existing: 5 x 250 KVA & Proposed: 2 x 250 KVA, 75 KVA at site office, 62.5 KVA at OHSR, 15 KVA at Marketing Office) capacities. These DG sets shall be acoustically enclosed. The trees planted at the boundary of the complex will also reduce the level of outside noise in the complex.

SOLID WASTE MANAGEMENT:

For 31331 persons, around 13163 kg/day of municipal solid waste will be generated for proposed site.

The Municipal waste categories and disposal method detail is shown is given Below:

SOLID WASTE							
Type of Waste	Colour of Bins	Category	Disposal Method	Existing Waste (Kg/day)	Proposed Waste (Kg/day)	Additional Waste (kg/day)	Total Waste (Kg/day) after Extension & Expansion
Organic Waste	Green	Bio Degradable	The waste shall be treated in organic waste converter and converted to manure.	6643	972	1599	9214
Recyclable Items	Blue	Recyclable	Recycler	2373	347	571	3291
Plastic waste	Blue	Recyclable	Recycler	475	69	114	658
Total				9491 kg/day	1388 kg/day	2284 kg/day	13163 kg/day

Details of Organic Waste Converter:

Specification of Organic waste converter are given below:

Biodegradable Waste	Batch Capacity	Curing Capacity	Time Taken	No of Batch
9214 kg/day	170/batch	200 kg/day	Machine Time= 15-20 m Total Time= 1 hr	7 batch/day for each organic waste convertor.

Model No.	No. of OWC provision	Capacity per Batch	Power	Dimension (LXWXH)

OWC-500	8 No	170 kg/Batch	16 HP	2.03m X 1.37m X 1.65 m
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- Number of Organic waste converter= 8 No.
- Motor Capacity= 16 HP
- Volume of the waste =9.214 cum
- Capacity of curing for 10 days= 92.14 cum
- Space for Curing (Assuming 0.3 m tray Height) = 307.13 m²
- Space for 8 no. of Organic waste converter= 2.03mX 1.37m= 2.78 m² X 8= 22.24 m²
- Total Area required for storage and management of solid waste= 329.37 m²
- Total area Provided for storage and management of solid waste= 500 m²

HAZARDOUS WASTE MANAGEMENT:

Hazardous waste is a waste with properties that make it dangerous or potentially harmful to human health or the environment. The universe of hazardous wastes is large and diverse. Hazardous wastes can be liquids, solids, contained gases, or sludge. They can be the by-products of manufacturing processes or simply discarded commercial products, like cleaning fluids or pesticides. All hazardous wastes are required to be treated and disposed off in the prescribed manner.

The main objective is to promote safe management and use of hazardous substances including hazardous chemicals and hazardous wastes, in order to avoid damage to health and environment.

Type of Waste	Colours of Bins	Category	Disposal Method	Total Waste
Used Oil	Black With Label	Hazardous Waste	Used oil shall be given Approve vendor	35 lit/month
E-waste	Black With Label	Hazardous Waste	E-Waste (Management & Handling) Rules, 2016	4-5 Kg/month

Plantation:

Shelter belt planning will be done with ecological perspectives for the project taking into consideration and availability of space and other aspects. This will help in increasing the aesthetic effect of the environment.

Green belt/greenery has been developed along most of the periphery of the project area as well as along roads. Area under plantation/greenery is 224028.4 sqm (19% of the net plot area) with trees and plants. The trees planted are of adequate height. Any trees that do not survive are replaced. The plantation/greenery programme will be completed, simultaneously along with the project.

SPECIES PROPOSED

NAME OF SPECIES (TREES FOR SHELTER BELT)	
Botanical Name	Common Name
<i>Bauhinia semla</i>	<i>Semla</i>
<i>Albizia chinensis</i>	<i>siran</i>
<i>Albizia lebbeck</i>	<i>The siris tree</i>
<i>Cassia pumlia</i>	<i>Yellow cassia</i>
<i>Anthocephalus chinensis</i>	<i>Kadamba</i>
<i>Azadiractha indica</i>	<i>Neem</i>

Name of the species (trees for avenue plantation)	
Botanical name	Common name
<i>Delbergia latifolio</i>	<i>Black wood</i>
<i>Delonix regia</i>	<i>Gulmohar</i>
<i>Grevillea robusta</i>	<i>Silky oak</i>
<i>Jacaranda mimosaeolia</i>	<i>Nil-gulmohar</i>

Name of species (shrubs)	
Botanical name	Common name
<i>Artocarpus heterophyllus</i>	<i>Kathal</i>
<i>Balanites rozburchii</i>	<i>Desert-date</i>
<i>Bambusa arundinacia</i>	<i>Thorny bamboo</i>
<i>Bambusa vulgaris</i>	<i>Golden bamboo</i>
<i>Alstonia scholans</i>	<i>Apocynaeceae</i>
<i>Acacia catechu</i>	<i>Khair</i>
<i>Bauhinia acuninata</i>	<i>Kanchan</i>
<i>Callistemon citrinus</i>	<i>Bottle brush</i>
<i>Citrus aurantium</i>	<i>Nebu</i>
<i>Duranta repens</i>	<i>duranta</i>

The following characteristics shall be taken into consideration while selecting plant species for green belt development and tree plantation.

- They should be fast growing and tall trees
- They should be perennial and evergreen
- They should have thick canopy cover
- They should have large leaf area index

Since tree trunks are devoid of foliage, scrub should form there to give coverage to the trunks. The trees maintain the regional ecological balance and conform to soil and hydrological conditions. Ingenious species would be preferred.

Green belt/greenery has been developed along most of the periphery of the project area as well as along roads. Area under plantation/greenery is 224028.4 sqm (19% of the net plot area) with trees and plants. The trees planted are of adequate height. Any trees that do not survive are replaced. The plantation/greenery programme will be completed, simultaneously along with the project.

PLANTATION PROGRAMME LAYOUT

Plantation in the project helps to arrest the particulate matter in the area and hence attenuate the pollution to a great extent and contribute positively to the environment. The trees also help in the maintenance of regional ecological balance and conform to soil and hydrological conditions. Ingenious species would be preferred.

Drinking water management:

Total quantity of water requirement of the complex will be 4775 KLD. Total fresh water requirement will be 2705 KLD which will be supplied by municipal supply of HUDA. Water requirement shall be mainly in domestic and also for flushing and gardening purposes.

SEWERAGE SYSTEM:

Total waste water discharge from the complex is 3324 KLD which shall be treated in STP OF 4200 KLD. Treated water from the STP will be reused for flushing, gardening purposes.

Excess treated water will be discharged into sewer of the colony.

Likely date of start of construction and completion

Construction shall be started after getting EC and other relevant approvals and construction will be completed within 42 months.

ESTIMATED COST OF THE PROJECT

The estimated cost of the project is 57.6 crores

PROJECT BENEFITS

Many local, national and international real estate developers are now concentrating on township development in India to deliver comprehensive residential plotted colony. Many citizens prefer to stay in residential plotted colony for better living. It is similar to staying in city within city; that comprises all the features of urban life in one large campus. These are basically self-sufficient units with well-designed structures and top class amenities to provide residential solutions and convenient living places in peaceful, eco-friendly surroundings.

The benefits refer to the direct employment associated with the construction of the facility.

Additional employment opportunities will lead to the rise in the income and improve standard of living. The proposed facility would also generate jobs for women labours during construction phase. Women are likely to get job during construction. This will considerably reduce their travel time and therefore enable them to attend to their children, their nutritional demands and also household chores.

It will increase infrastructure of the area and will provide better living style.

DISCLOSURE OF ENVIRONMENT CONSULTANT



Scheme for Accreditation of EIA Consultant Organizations



S. No.	Consultant Organization	Scope of Accreditation As per NABET Scheme			Project or Activity as per Schedule of MoEFCC Notification dated September 14, 2006 and subsequent Amendments
		Sector Number	Name of Sector	Category	
96	Perfact Enviro Solutions Pvt. Ltd. Address: 505, 5 th Floor, NN Mall, Mangalam Palace, Sector – 3, Rohini - 110085 E-mail: perfactsolutions@gmail.com Tel.: 011 – 47528467 09871591330	1	Mining of minerals including Open cast/ Underground mining	A	1 (a) (i)
		7	Mineral beneficiation including pelletisation	A	2 (b)
		15	Leather/skin/hide processing industry	A	4 (f)
		19	Textile – cotton and manmade fibers	B	5 (d)
		21	Synthetic organic chemicals industry (dyes and dye intermediates; bulk	A	5 (f)
	Conditions apply		drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)		
22		Distilleries	A	5 (g)	
31		Industrial estates/ parks/ complexes/ Areas, export processing zones(EPZs), Special economic zones (SEZs), Biotech parks, Leather complexes	A	7 (c)	
35		Aerial ropeways	A	7 (g)	
37		Common Municipal Solid Waste Management Facility (CMSWMF)	B	7 (i)	
38		Building and construction projects	B	8 (a)	
39		Townships and Area development projects	B	8 (b)	
			Bio Medical waste treatment Facilities	B	7(da) (as per MoEF Notification dated April 17, 2015).

ANNEXURE NO-I

TOPOGRAPHICAL MAP

ANNEXURE NO-II
EARLIER ENVIRONMENTAL CLEARANCE Letter

By Speed Post

No. 21-577/2007-IA.III
Government of India
Ministry of Environment & Forests
(IA Division).

Paryavaran Bhawan
CGO Complex, Lodi Road
New Delhi-110 003
Dated: January 07, 2008

To

✓ M/s. Taneja Developers & Infrastructure Ltd.
9, Kasturba Gandhi Marg,
New Delhi-110001

Subject: Environmental clearance for the development and construction of proposed township project at village Kabri, Faridpur, Sector 37 & 39, Panipat, Haryana.

Sir,

I am directed to refer to your application seeking prior environmental clearance for the above project under the EIA Notification, 2006. The above proposal has been appraised as per prescribed procedure on the basis of the mandatory documents enclosed with the application viz., Form 1, Form-1A, Conceptual Plan and the additional clarifications furnished in response to the observations of the Additional Expert Appraisal Committee (EAC) constituted by the competent authority in its 22nd & 24th meetings held on October 12-13 and November 22-24, 2007.

2. It is interalia, noted that M/s Taneja Developer & Infrastructures Ltd. is proposing development and construction of a township project at village Kabri, Faridpur, Sector 37 & 39, Panipat, Haryana at a cost of Rs.100 crores. The project comprises construction of 3700 flats and 670 EWS Units under Group Housing Scheme. The plotted development of the township comprises of 1288 plots of various sizes for residential, commercial & institutional purpose. Total plot area is 16,10,646.30 Sq. m. The built up area of the township project for plotted development will be as per local municipal rules Total water requirement is 5900 m³/d and sewage generation is about 4720 m³/d. The sewage will be treated in a STP which will be installed in the township. The treated sewage will be used for flushing and horticulture requirement. The excess treated sewage will be disposed off into the H.U.D.A. sewer line. The total solid waste generated (approx. 20240 kg/d) will be segregated and biodegradable waste will be sent to the biogas generation and processing facility and non-biodegradable waste will be disposed off through approved vendors for recycling of recyclable material.

3. The EIA report submitted along with the application predicts that there will be slightly adverse impact on air quality during construction phase whereas during operation phase the impact of the project on the air quality will be negligible. There will be negligible impact on water quality

will be negligible. There will be negligible impact on water quality of the receiving water body during construction as well as operation phase. There will be positive impact on land use pattern due to landscaping and greenbelt development. Plantation of trees and development of recreational area, surrounding area will have positive impact on overall land use.

4. The Expert Committee after due considerations of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations have recommended environmental clearance as per the provisions of 'Environmental Impact Assessment Notification'— 2006, Accordingly, the Ministry hereby accords necessary environmental clearance under category 8(b) of EIA Notification 2006 for the project subject to the strict compliance with the specific and general conditions mentioned below:

PART A- SPECIFIC CONDITIONS

I. Construction Phase

- i. Necessary approval of competent authority of State Forest Department shall be obtained before starting construction.
- ii. Consent for establishment shall be obtained from the State Pollution Control Board/Pollution Control Committee under Air and Water Act and a copy of the same shall be submitted to the Ministry before start of any construction work at site.
- iii. For disinfection of waste water use ultra violet radiation and not chlorination.
- iv. Vehicles hired for construction activities should be operated only during non-peak hours.
- v. All the top soil excavated during construction activities should be stored for use in horticulture/landscape developments within the project site.
- vi. Ready mixed concrete must be used in building construction.
- vii. Water demand during construction shall be reduced by use of pre mixed concrete, curing agents and other best practices.
- viii. Permission to draw ground water shall be obtained from competent authority prior to construction/operation of the project.
- ix. Separation of gray and black water should be done by the use of dual plumbing line. Treatment of 100% gray water by decentralized treatment should be done.
- x. Fixtures for showers, toilet, flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- xi. Use of glass may be reduced upto 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.
- xii. Roof should meet the prescriptive requirement as per energy conservation building code by using appropriate thermal insulation material to fulfill requirement.
- xiii. Opaque wall should meet prescriptive requirement as per energy conservation building code which is proposed to be mandatory for all

- air conditioned spaces while it is aspirational for non air conditioned spaces by use of appropriate thermal insulation to fulfill requirement.
- xiv. Storm water control and its reuse should be as per Central Ground Water Board and BIS standards for various applications.
 - xv. All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
 - xvi. Soil and ground water samples will be tested to ascertain that there is no threat to groundwater quality by leaching of heavy metals and other toxic contaminants.
 - xvii. A First Aid Room will be provided at the project site both during construction and operation of the project.
 - xviii. Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
 - xix. Disposal of muck including excavated material during construction phase should not create any adverse effects on the neighboring communities and be disposed off taking the necessary precautions for general safety and health aspects of people.
 - xx. Diesel power generating sets used during construction phase should be of "enclosed type" to prevent noise and should conform to rules made under Environment (Protection) Act 1986, prescribed for air and noise emission standards.
 - xxi. Ambient noise levels should conform to standards both during day and night when measured at boundary wall of the premises. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.
 - xxii. The construction agencies shall use flyash based material/ products as per the provisions of fly ash notification of 14.9.1999 and as amended on 27.8.2003.
 - xxiii. Vehicles hired for bringing construction material at site should be in good condition and should have valid "pollution under check"(PUC) certificate and to conform to applicable air and noise emission standards and should be operated only during non-peaking hours.
 - xxiv. Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such material must be secured so that they should not leach into the ground water.
 - xxv. Any hazardous waste generated during construction phase should be disposed of as per applicable Rules & norms with necessary approvals of the Haryana Pollution Control Board.
 - xxvi. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase so as to avoid disturbance to the surroundings.
 - xxvii. Under the provisions of Environment (Protection) Act 1986, legal action shall be initiated against the project proponent if it was found that construction of the project had started without obtaining environmental clearance.
 - xxviii. All internal roads width should be minimum 9 m.

II. Operation Phase

The environmental clearance recommended to the project is subject to the specific conditions as follows:

- i. Diesel power generating sets as source of back up power for lifts and common area illumination should be of "enclosed type" and conform to rules made under Environment (Protection) Act 1986, prescribed for air and noise emission standards as per CPCB guidelines. Exhausts should be discharged by stack, raised to 4 meters above the rooftop.
- ii. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- iii. The sewage treatment plant of adequate capacity should be provided and it should be certified by an independent expert for adequacy as well as efficiency and submit a report in this regard to the Ministry before the project is commissioned for operation. The wastewater should be treated upto tertiary level and after treatment reused for flushing, landscaping and gardening etc. However, discharge of treated sewage, if any, shall conform to the norms & standards prescribed by Haryana Pollution Control Board.
- iv. Rain water harvesting and ground water recharging shall be practiced. The ground water levels and its quality should be monitored regularly in consultation with the Central Ground Water Authority. Oil & Grease trap shall be provided to remove oil and grease from the surface run off and suspended matter shall be removed in a settling tank before its utilization for rainwater harvesting.
- v. The solid waste including hazardous waste generated should be properly collected & segregated. Biodegradable waste should be composted and non bio-degradable solid waste should be disposed of to municipal landfill sites after recovering recyclable waste. STP sludge shall be used as manure for gardening.
- vi. Any hazardous waste including biomedical waste should be disposed of as per applicable Rules & norms with necessary approvals of the Haryana Pollution Control Board.
- vii. The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous variety.
- viii. Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project.
- ix. Prior permission of the Central Ground Water Authority should be obtained for the utilization of ground water.
- x. The Solar energy shall be used for water heating as well as lighting common areas and verifiable measures shall be adopted for energy conservation and water conservation.

advertisement should be made within 7 days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Chandigarh.

11. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986 and the Public Liability (Insurance) Act, 1991.

12. The project authority will enter in to MOU with all buyers of the property to ensure operation and maintenance of the assets by owners of the buildings.



(K.C.Rathore)

Additional Director (IA)

Tele: 24360789

rathore27@yahoo.com

Copy to: -

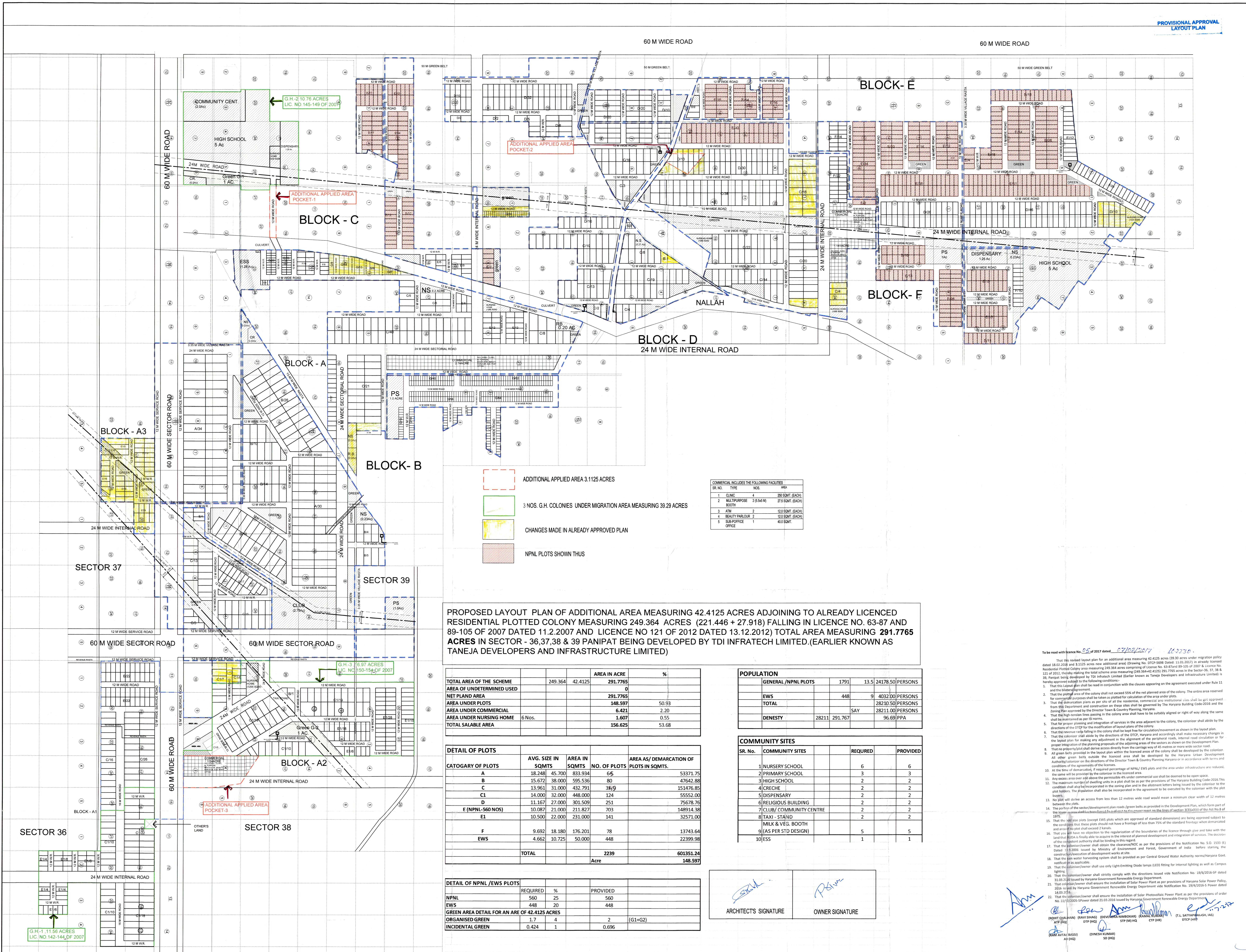
1. The Secretary, Government of Haryana, Department of Environment, Secretariat, Panchkula, Haryana
2. The Member Secretary, Haryana State Pollution Control Board, Panchkula, Haryana.
3. The CCF, Regional Office. Ministry of Environment & Forests, Chandigarh.
4. IA - Division, Monitoring Cell, MOEF, New Delhi - 110003.
5. Guard file.

(K.C.Rathore)

Additional Director (IA)

ANNEXURE NO-III

SITE PLAN



- ADDITIONAL APPLIED AREA 3.1125 ACRES
- 3 NOS. G.H. COLONIES UNDER MIGRATION AREA MEASURING 39.29 ACRES
- CHANGES MADE IN ALREADY APPROVED PLAN
- NPPL PLOTS SHOWN THUS

SR. NO.	TYPE	NOS.	AREA
1	CLINIC	4	280 SQMT. (EACH)
2	MULTIPURPOSE BOOTH	2 (5.5x5 M)	27.5 SQMT. (EACH)
3	ATM	2	120 SQMT. (EACH)
4	BEAUTY PARLOUR	2	120 SQMT. (EACH)
5	SUB OFFICE	1	400 SQMT.

PROPOSED LAYOUT PLAN OF ADDITIONAL AREA MEASURING 42.4125 ACRES ADJOINING TO ALREADY LICENCED RESIDENTIAL PLOTTED COLONY MEASURING 249.364 ACRES (221.446 + 27.918) FALLING IN LICENCE NO. 63-87 AND 89-105 OF 2007 DATED 11.2.2007 AND LICENCE NO 121 OF 2012 DATED 13.12.2012 TOTAL AREA MEASURING 291.7765 ACRES IN SECTOR - 36,37,38 & 39 PANIPAT BEING DEVELOPED BY TDI INFRA TECH LIMITED.(EARLIER KNOWN AS TANEJA DEVELOPERS AND INFRASTRUCTURE LIMITED)

	249.364	42.4125	291.7765	%
TOTAL AREA OF THE SCHEME				
AREA OF UNDETERMINED USED			0	
NET PLAND AREA			291.7765	
AREA UNDER PLOTS	148.597		148.597	50.93
AREA UNDER COMMERCIAL	6.421		6.421	2.20
AREA UNDER NURSING HOME	6 Nos.	1.607	1.607	0.55
TOTAL SALABLE AREA		156.625	156.625	53.68

POPULATION			
	GENERAL / NPPL PLOTS	1791	13.5
EWS	448	9	4032.00 PERSONS
TOTAL	SAY	28210.50	PERSONS
DENSITY	28211	291.767	96.69 PPA

DETAIL OF PLOTS				
CATOGARY OF PLOTS	AVG. SIZE IN SQMTS	AREA IN SQMTS	NO. OF PLOTS	AREA AS/ DEMARCATION OF PLOTS IN SQMTS.
A	18.248	45.700	833.934	65
B	15.672	38.000	595.536	80
C	13.961	31.000	432.791	38.9
C1	14.000	32.000	448.000	124
D	11.167	27.000	301.509	251
E (NPPL-560 NOS)	10.087	21.000	211.827	703
E1	10.500	22.000	231.000	141
F	9.692	18.180	176.201	78
EWS	4.662	10.725	50.000	448
TOTAL			2239	601351.24
			Acre	148.597

COMMUNITY SITES			
SR. No.	COMMUNITY SITES	REQUIRED	PROVIDED
1	NURSERY SCHOOL	6	6
2	PRIMARY SCHOOL	3	3
3	HIGH SCHOOL	2	2
4	CRECHE	2	2
5	DISPENSARY	2	2
6	RELIGIOUS BUILDING	2	2
7	CLUB/ COMMUNITY CENTRE	2	2
8	TAXI - STAND	2	2
9	MILK & VEG. BOOTH	5	5
10	LESS	1	1

DETAIL OF NPPL / EWS PLOTS			
	REQUIRED	%	PROVIDED
NPPL	560	25	560
EWS	448	20	448
GREEN AREA DETAIL FOR AN AREA OF 42.4125 ACRES			
ORGANISED GREEN	1.7	4	2 (G1+G2)
INCIDENTAL GREEN	0.424	1	0.696

ARCHITECTS SIGNATURE: *[Signature]*
 OWNER SIGNATURE: *[Signature]*

To be read with licence No. 05 of 2017 dated 07/02/2017 162730.

This revised layout plan for an additional area measuring 42.4125 acres under migration policy dated 18.02.2016 and 3.1125 acres under additional area (Drawing No. DTCP-5688 Dated: 13.02.2021) in already licenced residential Plotted Colony area measuring 249.364 acres comprising of Licence No. 63-87 and 89-105 of 2007 & Licence No. 121 of 2012, thereby making the total scheme area measuring (249.364+42.4125) 291.7765 acres in the Sector-36, 37, 38 & 39, Panipat being developed by TDI Infra Tech Limited (Earlier known as Taneja Developers and Infrastructure Limited) is hereby approved subject to the following conditions:

- That this Layout plan shall be read in conjunction with the clauses appearing on the agreement executed under Rule 11 and the bye-laws.
- That the proposed area of the colony shall not exceed 50% of the net planned area of the colony. The entire area reserved for commercial purposes shall be taken as plots for calculation of the area under plots.
- That the demarcation plans as per site of all the residential, commercial and institutional uses shall be got approved from the Department and construction on these sites shall be governed by the Haryana Building Code-2016 and the Zoning Plan approved by the Director Town & Country Planning, Haryana.
- That the high tension lines passing in the colony area shall have to be suitably aligned or right of way along the same shall be maintained as per ISI norms.
- That for proper planning and integration of services in the area adjacent to the colony, the collector shall abide by the directions of the DTCP for the modification of layout plans of the colony.
- That the revenue rate falling in the colony shall be kept free for circulation/ movement as shown in the layout plan.
- That the collector shall abide by the directions of the DTCP, Haryana and accordingly shall make necessary changes in the layout plan for making any adjustment in the alignment of the peripheral roads, internal road circulation or for proper integration of the planning proposals of the adjoining areas of the sectors as shown on the Development Plan.
- That the property/plots shall derive access directly from the carriage way of 45 meters or more wide sector road.
- All green belts provided in the layout plan within the licenced area of the colony shall be developed by the collector.
- All other green belts, outside the licenced area shall be developed by the Haryana Urban Development Authority/collector on the directions of the Director Town & Country Planning Haryana or in accordance with Municipal conditions of the agreements of the licensee.
- At the time of demarcation, if required percentage of NPPL/ EWS plots and the area under infrastructure are reduced, the same will be provided by the collector in the licenced area.
- Any excess area over 2% above the permissible 4% under commercial use shall be deemed to be open space.
- The maximum number of dwelling units in a plot shall be as per the provisions of the Haryana Building Code-2016. The condition shall also be incorporated in the allotment letters being issued by the collector to the plot holders. The population shall also be incorporated in the agreement to be executed by the collector with the plot holders.
- No plot will derive an access from less than 12 metres wide road would mean a minimum clear width of 12 metres between the plots.
- The portion of the sector/development plan roads (green belts) as provided in the Development Plan, which form part of the licensee's land shall be handed over to the Government on the date of completion of the project.
- That the 500 sun plots (except EWS plots which are approved of standard dimensions) are being approved subject to the condition that these plots should not have a frontage of less than 75% of the standard frontage when demarcated and area of no plot shall exceed 2 sqm.
- That the collector shall have no objection to the registration of the boundaries of the land through give and take with the land that BUDA is finally able to acquire in the interest of planned development and integration of services. The decision of the competent authority shall be binding on this regard.
- That the collector/owner shall obtain the clearance/NOC as per the provisions of the Notification No. S.O. 1313 (1) dated 13.02.2006 issued by Ministry of Environment and Forest, Government of India before starting the construction/development of development works at site.
- That the rain water harvesting system shall be provided as per Central Ground Water Authority norms/Haryana Govt. notification as applicable.
- That the collector/owner shall use only Light Emitting Diode lamps (LED) fitting for internal lighting as well as Campus lighting.
- That the collector/owner shall strictly comply with the directions issued vide Notification No. 13/2016-SP dated 31.03.2016 issued by Haryana Government Renewable Energy Department.
- That the collector/owner shall ensure the installation of Solar Power Plant as per provisions of Haryana Solar Power Policy, 2016 issued by Haryana Government Renewable Energy Department vide Notification No. 13/2016-SP dated 31.03.2016.
- That the collector/owner shall ensure the installation of Solar Photovoltaic Power Plant as per the provisions of order No. 22/201205-SP dated 23.03.2012 issued by Haryana Government Renewable Energy Department.

(RIGHT CHAUHAN) (RAVI SHARMA) (DEVEKARAN) (KAMAL KUMAR) (S.P. (M) HQ) (C.P. (HR)) (T.L. SATHYANARAYAN, IAS) (DTM) (DCP)

(RANJITVAI BASSI) (DINESH KUMAR) (S.D. (HQ))

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ANNEXURE NO-IV

Acknowledgement of Forest Application

This is to acknowledge that a proposal seeking prior approval of Central Government under the Forest (Conservation) Act 1980 as per the details given below has been successfully uploaded on the portal of the Ministry of Environment, Forests and Climate Change Government of India.

- 1. Proposal No.** : FP/HR/Others/24432/2017
2. Proposal Name : For TDI Infratech Limited (Residential Plotted Colony)
3. Category of the Proposal : Others
4. Date of Submission : 18/02/2017
5. Name of the Applicant with Contact Details
Name : tdi
Mobile No. : 9896098555
State : Haryana
District : Panipat
Pincode : 132103
6. Area Applied (ha.) : 0

The proposal will be examined by the Nodal Officer, Forest (Conservation) Act, 1980 to assess its completeness.

(System Administrator)

ANNEXURE NO-V

Land Papers

Directorate of Town and Country Planning, Haryana

SCO No. 71-75, 2nd Floor, Sector-17 C, Chandigarh, web site: tcpharyana.gov.in
Phone: 0172-2549349; e-mail: tcphry@gmail.com

LC-IX

(See Rule 16 (2))

To

Taneja Developers & Infrastructure Ltd.,
9-Kasturba Gandhi Marg,
New Delhi.

Memo No. LC-805-JE (BR)-2014/ 3114 Dated: 10/2/14

Subject: Grant of part completion certificate of residential plotted colony having licence No. 63-87 and 89-105 dated 11.02.2007 over an area measuring 221.446 acres in the revenue estate of village Kabri and Faridpur, Sector -39, District Panipat.

Reference: Your application dated 28.02.2012.


Your request for part completion certificate over an area measuring 221.446 acres in respect of residential plotted colony developed on the land measuring 221.446 acres in the Revenue Estate of Village Kabri and Faridpur, Sector 39, District Panipat for license no. 63-87 and 89-105 dated 11.02.2007.

It is hereby certified that the required development works on the Residential plotted colony at Panipat comprising of Licence no. 63-87 and 89-105 dated 11.02.2007 for 221.446 acres as indicated on the enclosed layout plan duly signed by me read in conjunction with the following terms and conditions have been completed to my satisfaction. The development works are Water supply, Sewerage, Storm water Drainage, Roads, Horticulture and Electrification. The completion certificate is granted on the following terms and conditions:-

- i. That you shall be fully responsible for supply of water as per norms till such time the colony is handed over after final completion
- ii. The service will be laid by the colonizer upto alignment of proposed external services of the town and connection with the HUDA system will be done by the Society at his own cost with the prior approval of the competent authority. In case pumping is required, the same will be done by the Society at his own cost. The services will be provided as per provision in the EDC of Sonapat.
- iii. Level/Extent of the services to be provided by HUDA i.e. water supply sewerage, SWD, roads etc. will be proportionate of EDC provisions.
- iv. That licensee will also maintain the internal services to the satisfaction of the Director General till the colony is handed over after granting final completion certificate.
- v. That in case some additional structures are required to be constructed and decided by HUDA at a later stage, the same will be binding upon you.
- vi. That you shall maintain a roof top rain water harvesting system properly and keep it operational all the time.

- vii. The basement and stilt shall be used as per provisions of approval zoning plan building plans.
- viii. That the outer façade of the buildings shall not be used for the purposes advertisement and placement of hoardings.
- ix. That you shall neither erect nor allow the erection of any Communication and transmission Tower on top of the building blocks.
- x. That you shall use the tube well room only for maintain the part and will demolish the same directed by the Department.
- xi. That you shall complete the community building within stipulated period prescribed on policy dated 3.04.2012.
- xiii. As per service plan estimate the arrangement for water supply, disposal of sewerage as per guidelines of HSPCB/Environment Department and drinking water shall be made by the firm themselves. Consent for smooth functioning till the external service are provided by HUDA has already been given by the colonizers.

This completion certificate shall be void ab-initio, if any of the conditions mentioned above are not complied with.


(Anurag Rastogi)
Director General,
Town and Country Planning
Haryana, Chandigarh

Endst. No. LC-805-JE (BR)-2014/

Dated:

A copy is forwarded to the following for information and necessary action.

- i. CA, HUDA, Panchkula.
- ii. Senior Town Planner, Rohtak.
- iii. District Town Planner, Panipat.
- iv. Chief Accounts Officer of this Directorate.

(S.K Sehrawat)
District Town Planner, (HQ)
For Director General, Town and Country Planning,
Haryana, Chandigarh.

Form LC-V
(See Rule-12)
Haryana Government
Town and Country Planning Department

Licence No. 121 of 2012

This licence has been granted under The Haryana Development and Regulation of Urban Areas Act, 1975 and Rules made there under to Sh. Chaman Lal S/o Sh. Krishan Kumar, Super Fly Colonizers Pvt. Ltd., Unique Colonizers Pvt. Ltd., R.T. Colonizer Pvt. Ltd., Dignified Home Living Pvt. Ltd., Inder Dhanush Estate Pvt. Ltd., Taneja Developers and Infrastructure Ltd., Hari Om Softech Pvt. Ltd., C/o Taneja Developers and Infrastructure Ltd., 9, Kasturba Gandhi Marg, New Delhi-1 for setting up of Residential Plotted Colony on the land measuring 27.918 acres falling in the revenue estate of village Kabri & Faridpur, Sector-36-39, Distt. Panipat.

2. The particulars of land wherein the aforesaid residential colony is to be set up are given in the schedule annexed hereto and duly signed by the Director General, Town and Country Planning, Haryana.

3. The licence is granted subject to the following conditions:-

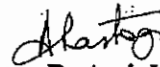
- a. That the Residential Plotted Colony is laid out to conform to the approved layout plan and the development works are executed according to the designs and specifications shown in the approved plan.
- b. That the conditions of the agreements already executed are duly fulfilled and the provisions of Haryana Development and Regulation of Urban Areas Act, 1975 and Rules, 1976 made there-under are duly complied with.
- c. That the demarcation plan of the colony area will be submitted in the O/o District Town Planner, Panipat within two months from the date of issuance of this licence before starting the development works in the colony and for approval of the zoning plan.
- d. That the licensee shall construct 12 m wide service road and 24m wide internal circulation road forming part of your site at your own cost and same will be transfer free of cost to the Govt.
- e. That the portion of sector/Master plan road which shall form part of the licenced area if any shall be transferred free of cost to the Government in accordance with the provisions of Section 3(3) (a) (iii) of the Haryana Development and Regulation of Urban Areas Act, 1975.
- f. That the licensee shall obtain approval/NOC from the Competent Authority to fulfill the requirements of notification no. S.O. 1533 (E) dated 14.09.2006 issued by the Ministry of Environment & Forests, Govt. of India before starting the development works in the colony.
- g. That the licensee shall seek approval from the Competent Authority under the Punjab Land Preservation Act, 1900 or any other statute applicable at site before starting the development works, if required.
- h. That the licensee will use only CFL fittings for internal lighting as well as for campus lighting in the complex.
- i. That the licensee shall make arrangement for water supply, sewerage, drainage etc to the satisfaction of DGTCP till the services are made available from external infrastructure to be laid by HUDA.
- j. That the cost of 24/18 m wide road/major internal road is not included in the EDC rates and you will pay the proportionate cost for acquisition of land, if any alongwith the construction cost of 24/18 m wide road/major internal road as and when finalized and demanded by the Director General, Town & Country Planning, Haryana.
- k. That the licensee shall convey 'Ultimate Power Load Requirement' of the project to the concerned power utility, with a copy to the Director, with in two month period from the date of grant of licence to enable provision of site in your land for Transformers/Switching Station/ Electric Sub-Stations as per the norms prescribed by the power utility in the zoning plan of the project.
- l. That you shall deposit the difference of licence fee and Infrastructure Development Charges as per new rates as and when demanded by Director General, since the same is applicable in this case, as per principal approval of the Government for

Yukt

revision in the rates of licence fee and Infrastructure Development Charges stands received.

- m. That the licensee shall integrate the services with HUDA services as per approved service plans and as & when made available.
- n. That the licensee shall have no objection to the regularization of the boundaries of the license through give and take with the land, that HUDA is finally able to acquire in the interest of planned development and integrated services. The decision of the competent authority shall be binding in this regard.
- o. That the licensee shall pay the labour cess charges as per policy dated 4.5.2010.
- p. That the licensee shall provide rain water harvesting system at site as per Central Ground Water Authority norms/Haryana Govt. notification, as applicable.
- q. That the licensee shall make the provision of solar water heating system as per recommendations of HAREDA and shall make it operational, where applicable, before applying for Occupation Certificate.
- r. That in compliance of Rule 27 of Rules 1976 & Section 5 of Haryana Development and Regulation of Urban Areas Act, 1975, you shall inform account number and full particulars of the scheduled bank wherein you have to deposit thirty percentum of the amount from the plot for meeting the cost of internal development works in the colony.
- s. That the licensee shall specify the detail of calculations per sqm/per sq ft, which is being demanded from the plot owners on account of IDC/EDC, if being charged separately as per rates fixed by Govt.
4. The licence is valid upto 12/12/2016.

Dated: Chandigarh
The 13/12/2012.



(Anurag Rastogi, I.A.S.)
Director General
Town & Country Planning
Haryana, Chandigarh

Endst. No. LC-2230-JE(BR) - 2012/ ²⁵⁸⁴³

Dated:- 14/12/12

A copy is forwarded to the following for information and necessary action:-

1. Sh. Chaman Lal S/o Sh. Krishan Kumar, Super Fly Colonizers Pvt. Ltd., Unique Colonizers Pvt. Ltd., R.T. Colonizer Pvt. Ltd., Dignified Home Living Pvt. Ltd., Inder Dhanush Estate Pvt. Ltd., Taneja Developers and Infrastructure Ltd., Hari Om Softech Pvt. Ltd., C/o Taneja Developers and Infrastructure Ltd., 9, Kasturba Gandhi Marg, New Delhi-1 with copy of agreement LC-IV and bilateral agreement. ^{LOP}
2. Chairman, Pollution Control Board, Haryana, Sector-6, Panchkula.
3. Chief Administrator, HUDA, Panchkula.
4. Chief Administrator, Housing Board, Panchkula along with copy of agreement.
5. Managing Director, HVPN, Planning Directorate, Shakti Bhawan, Sector-6, Panchkula.
6. Joint Director, Environment Haryana-Cum-Secretary, SEAC, SCO No. 1-3, Sector -17D Chandigarh.
7. Additional, Director Urban Estates, Haryana, Panchkula.
8. Administrator, HUDA, Rohtak.
9. Chief Engineer, HUDA, Panchkula.
10. Superintending Engineer, HUDA, Rohtak along with a copy of agreement.
11. Senior Town Planner (Enforcement), Haryana, Chandigarh.
12. Senior Town Planner, Panchkula.
13. Chief Accounts Officer, O/o Director General, Town and Country Planning Haryana, Chandigarh along with a copy of agreement.
14. Land Acquisition Officer, Rohtak. ^{LOP}
15. District Town Planner, Panipat along with a copy of agreement with request to send his comments on priority after receipt of the Demarcation Plan from the colonizer as per condition no. 3(c). He will also ensure that colonizer shall obtained approval/NOC as per condition no. 3(f&g) before starting the development works.


(Sanjay Kumar)
District Town Planner (HQ)
For Director General, Town and Country Planning,
Haryana, Chandigarh.

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To be read with Licence No. 121 Dated 13/12/2012

1. Detail of Land Owned by Chaman Lal s/o Krishan Kumar village Faridpur, District Panipat.

Village	Rect No.	Killa No.	Area (K-M)
Faridpur	22	5	8-0
		Total	8-0

2. Detail of Land owned By Super Fly Colonizers Pvt Ltd Village Kabri, District Panipat.

Village	Rect No.	Killa No.	Area (K-M)
Kabri	53	8MWest	6-12
		15	8-0
		Total	14-12

3. Details of Land owned by Unique Colonizers Pvt. Ltd. village Kabri, District Panipat.

Village	Rect No.	Killa No.	Area (K-M)
Kabri	53	13	8-0
		14	8-0
		17/1	4-18
		17/2	3-2
		18/1	3-11
		23/1	1-8
		23/2	5-0
		24	6-18
		25/1	5-3
		11/2	1-7
		12	8-0
		18/2	2-11
		19	8-0
		20	8-0
		21	6-18
		22	6-18
		26	1-0
	Total	88-14	

4. Details of land owned by R.T. Colonizer Pvt. Ltd. Village Kabri, District Panipat

Village	Rect No.	Killa No.	Area (K-M)
Kabri	45	17 min South	0-7
		18 min South	0-7
		23 min East	6-13
		24	7-1
	53	1 min West	5-8
		9/1	1-12
	54	4	7-4
		7	8-0
		14/1min East	3-9
		Total	40-1

[Signature]
D.G.T.C.P. (Hr.)
Bhamburda Singh Poon

[Signature]

5. Details of Land owned by Dignified Home Living Pvt Ltd 5/8 Share, Inder Dhanush Estate Pvt. Ltd. 3/8 Share, Village Kabri, District Panipat.

Village	Rect No.	Killa No.	Area (K-M)	
Kabri	45	22min East	0-3	
		South		
	54	2 min East	3-16	
		3	8-0	
		8	8-0	
		9 min East	7-14	
		10 min South	4-15	
		20/1	5-10	
		26	0-16	
		55	16	8-0
			17	8-0
			24	6-18
			25	6-18
	Total	<u>68-10</u>		

6. Details of Land Owned by Taneja Developers & Infrastructure Ltd., Village Faridpur, District Panipat

Village	Rect No.	Killa No.	Area (K-M)
Faridpur	25	17min south	1-7
		Total	<u>1-7</u>

7. details of Land owned by M/s Hari Om Softech Private Ltd., Village Faridpur, District Panipat

Village	Rect No.	Killa No.	Area (K-M)
Faridpur	24	8/1/2	0-18
		7/2/2	1-5
		Total	<u>2-3</u>

GRAND TOTAL= 223 K-7 M or 27.918 acres

Sharma
Director General
Town & Country Planning
Haryana, Chandigarh
Reference Stamp Below

Yakes

ANNEXURE NO-VI

TOR Letter

Secretary, State Expert Appraisal Committee,
Haryana Bays No. 55-58, Paryatan Bhawan,
Sector-2, Panchkula

F.No. HR/SEAC/686/1450

Dated: 15/09/2016

To

M/s Taneja Developers and Infrastructure Pvt. Ltd.,
10 Shaheed Bhagat Singh Marg,
Gole Market, New Delhi.

Subject: Environmental Clearance for the proposed extension and expansion of "Residential Plotted Colony", Sector- 36-39, Panipat, Haryana- Approval of Terms of Reference

This is with reference to your application on the subject noted above.

The information given in the reply and other documents will be placed before the State Expert Appraisal Committee (SEAC) for approval of Terms of Reference in its 140th Meeting scheduled to be held on 09.09.2016.

The project proponent presented the case for proposed ToRs. The PP is directed to prepare the EIA by incorporating the following ToR:

1.0 Introduction

- Profile of the project proponent, name and contact address, implementing organization, organizational chart, project consultants etc., will be mentioned clearly.
- Land description- plot/ survey numbers, village, tehsil, district, state and area of the land will be mentioned clearly.
- Description of Centre/ State/ Local regulations and standards applicable for building and construction projects will be discussed.
- Any litigation(s) pending against the proposed project and/or any directions or orders passed by any Court of Law/any Statutory Authority against the project will be detailed out.

2.0 Project Description

Goal and objectives of the proposed project, significance of the project both at local and regional level, relevance of the project in light of the existing development plans of the region are to be mentioned clearly. Background information and overall scenario of the proposed activity in the Indian context, procedures adopted for selection, criteria for selection of the site for the proposed activity, such as environmental, socio-economic, minimization of impacts, ecological sensitivity, impact of existing activities on the proposed activity etc. should be spelt out. Resource and manpower requirements have to be detailed. Time frame for project initiation, implementation and completion should be detailed. Following details will be given:

- Total site area
- Total built up area (provide area details for each block) and total activity area
- Source of water and consumption, STP requirement/capacity
- Source of power and requirement
- Connectivity to the city center, utilities and transportation networks community facilities
- Parking requirements and provisions
- Type of building materials to be used
- Environmental liability of the site
- Existing structure/ type of material - demolition debris etc.

Essential Toposheets / Maps which will be provided with TOR Application, are:

- A map of the study area 500 meter from the boundary of the project area, delineating the major topographical features such as land use, drainage, locations of habitats, major constructions including roads, railways, pipelines, industries if any in the area are to be mentioned.
- A map covering aerial distance of 15 km from the boundary of the proposed project area delineating environmental sensitive areas as specified in Form 1 of EIA notification dated 14th September 2006. In the same map the details of environmental sensitive areas present within a radial distance of 1 km from the project boundary shall be specifically shown.

Remote Sensing Satellite Imagery:

Land use map of the study area in appropriate scale based on Google imagery delineating the forest, agricultural land, water bodies, settlements, and other cultural features.

Digital Elevation Model / Contour Map:

Contour map on 1:10000 scale for the study area showing the various proposed break-up of the land.

- Description of the project site & surroundings, geology, topography, climate, transport and connectivity, demographic aspects, socio, cultural and economic aspects, villages, settlements should be given.
- Details of environmentally sensitive places, land acquisition, rehabilitation of communities/ villages, present status of such activities should be mentioned.
- Historical data on climate conditions such as wind pattern, history of cyclones, storm surges, earthquake etc., for the last 25 years are to be given.
- Detailed layout plan of proposed project development, communication facilities, access/approach roads, landscape, sewage disposal facilities, and waste disposal etc. will be given. Layout plan of proposed development of built up areas with covered construction such as DG set rooms, administrative buildings, utilities such as main and stand by power, water supply installations etc. to be given.
- Requirement of natural resources and their sources will be detailed out.

Site Selection and Planning

The environmental impacts of construction and operation are established during the early phases of site selection and planning. Planning, site selection and design form an important stage in the development of these projects and will determine their environmental impact(s).

Some important factors for development, which should be addressed, are:

- Status of ownership of land, licence and its validity and its collaboration agreement with the developer.
- The boundaries of the project area
- A map that identifies the locations of all proposed development activities
- A map and photo mosaic showing the area proposed to be disturbed in relation to existing topographic features, wetlands and water bodies.
- Proximity to local communities;
- Proximity to sensitive surface or ground water bodies
- Compatibility with local building regulations
- Existing drainage pattern
- Any forest-cover within the proposed developmental area.

3.0 Description of the Environment

Environmental data to be considered in relation to building development would be: (a) land, (b) water, (c) air, (d) biological environment, (e) noise and (f) socio-economic environment.

Study Area:

Map of the study area clearly delineating the location of various monitoring stations (air, water, soil and noise) superimposed with location of habitats should be shown. Monitoring should be done as per CPCB guidelines. Primary data should be collected for one season except rainy season. Monitoring of the parameters should be carried out within the study area.

3.1 Land Environment

The first feature which should influence the development of a new project is the existing land use pattern of the neighborhood of the project, whether the proposed development conforms to the development for that area or not.

Study of land use pattern, habitation, cropping pattern, forest cover, environmentally sensitive places etc. will be conducted based on Google's satellite imageries and ground truth and also through secondary data sources.

Geographical latitude and microclimatic factors such as solar access and wind loads have a major impact. The following parameters will be addressed under the baseline data for land environment.

a) Topography

- Slope form
- Landform and terrain analysis

b) Soil

- Type and characteristics
 - Porosity and permeability
 - Sub soil permeability
 - Inherent fertility
- | | | | |
|--|-------------------------------|-------|-----------|
| | <u>For 4 different</u> | (i) | 0-15 cm |
| | <u>depths i.e.</u> | (ii) | 15-30 cm |
| | | (iii) | 30-60 cm |
| | | (iv) | 60-100 cm |

3.2 Air Environment

Climatological data is to be obtained from nearest India Meteorological Department (IMD) station for one full year. Micro meteorological data consisting of wind speed, wind direction, temperature, cloud cover, (amount and height), humidity, inversions, rainfall (peak and average daily rainfall) and wind rose patterns, will be collected and analyzed from secondary sources in the study area.

Baseline data of air pollutant parameters extending an area of 500 meters from the project will be monitored at a number of locations. Description of base line data of ambient air parameters namely PM₁₀, PM_{2.5}, oxides of nitrogen (NO_x), sulphur dioxide (SO₂), and carbon monoxide (CO) will be collected. One season data other than monsoon is to be monitored as per the CPCB Norms. Sampling locations are to be located as per CPCB norms.

3.3 Noise Environment

Construction equipment and road traffic are the major sources of noise. Baseline data of noise at the project area and the neighbourhood habitat areas is to be ascertained. Daytime and nighttime data should be collected.

3.4 Water Environment

Identify project activity, including construction phase, which may affect surface water or groundwater. Estimate water intake requirements and identify the source of water to be used. Describe how water will be taken from the surface water/ river and conveyed to the site. Ground water budgeting has to be provided. Rainwater harvesting has to be detailed out.

Baseline water quality from all sources such as ground water, municipal water, surface water needs to be determined and compared to the water quality norms prescribed for drinking water and State PWD specifications for construction water. Quantity of wastewater is to be provided.

3.5 Biological Environment

Baseline data on the flora and fauna for the study area is to be detailed out. An inventory map is to be prepared along with a description of the existing terrestrial, wetland and aquatic vegetation. If there are any rare and endangered species in the study area they are to be clearly mentioned.

3.6 Socio Economic Environment

Baseline data should include the demography, settlements, existing infrastructure facilities in the proposed area.

3.7 Solid Waste

Solid wastes from construction sector can be categorized into two phases i.e. during construction & during operation. Details of the following are to be given:

- Construction or demolition waste, i.e., passive and inert waste
- Municipal waste, i.e., biodegradable and recyclable waste
- Hazardous waste
- E-waste
- Details of authorized municipal solid waste facilities, biomedical treatment facilities and hazardous waste disposal facilities in the area should be included.

4.0 Anticipated Environmental Impacts and Mitigation Measures:

4.1 Land Environment

Anticipated Impacts:

Some of the anticipated impacts, which needs to be addressed, are:

- Impact on the natural drainage system and soil erosion
- Loss of productive soil and impact on natural drainage pattern.
- Study of the problem of landslides and assessment of soil erosion potential and the impact

Mitigation Measures:

Proper mitigation measures have to be suggested:

- If the topsoil is proposed to be preserved, the details relating to the quantity of topsoil stored, demarcated area on plan where it is stored along with preservation plan is to be given
- Details of soil erosion plan are to be given.

4.2 Air Environment

Anticipated Impacts:

Impacts on air quality during the construction and operation phase should be predicted. The existing surrounding features of the study area and impact on them should be addressed separately. It is necessary to predict the following, if any:

- Prediction of point source emissions
- Prediction of air emissions from the vehicles during the construction and operation phases

Mitigating Measures:

Mitigative measures are to be proposed during the construction stage as well as the operational stage of the project. Some measures which should be listed include:

- Mitigative measures during construction phase to reduce the emissions during loading, unloading, transportation and storage of construction materials
- Greenbelt development
- Dust mitigation

4.3 Noise Environment

Impact of project construction/operation on the noise on account of construction equipment and road traffic is to be studied.

Anticipated Impacts:

- Noise due to demolition / construction activities
- Impact due to present and future transportation activities
- Impact of noise due to work at night.

Mitigating Measures:

Site plan and details for construction management showing the layout of noise and dust barriers should be given.

4.4 Water Environment

Impact of construction and operational phases on the surface and ground water on account of the building construction is to be estimated.

Anticipated Impacts:

- Impact of water withdrawal on surface water is to be given.
- Impact on ground water potential is to be detailed.
- Waste water generation

Mitigating Measures:

- Prediction of ground water contamination and suggested mitigating measures to minimize the pollution level.
- Hydro geological information should be clearly detailed
- Details of water conservation within the buildings
- Details of rainwater harvesting to recharge the ground water

4.5 Biological Environment

Impact of project during construction and operational phases on the biological environment on account of project activity is to be detailed.

Anticipated Impacts:

- Impact of construction activity on flora and fauna is to be given.

Mitigating Measures :

- Tree survey plan showing protected/preserved/transplanted/removed trees are to be given.
- Proposed landscape plan with details about species that are to be planted are to be given

4.6 Socio Economic Environment

Anticipated Impacts:

- Predicted impact on the communities of the proposed activity is to be given.
- Impact on surroundings on socio-economic status is to be detailed.

Mitigation Measures:

Mitigation measures to reduce adverse effects are to be given.

4.7 Solid Waste and Environment

Anticipated impacts

Impact of the project during construction and operational phases for generation of waste is to be assessed.

Mitigation Measures:

Options for minimization of solid waste and environmentally compatible disposal are to be given. Management and disposal of temporary structures, made during construction phase are to be addressed. Mitigation measures for handling biomedical wastes, e-wastes and municipal solid wastes are to be detailed.

5.0 Specific Studies

Describe the project energy requirement, infrastructure requirement needed for this activity. Discuss the steps taken to integrate the needs of other stakeholders into the location and design of access infrastructure to reduce and manage overall environmental impacts from resource development.

5.1 Transport

- Estimate any environmental implications from transportation (rail, road) related emissions associated with the construction and operational phases and suggest suitable options.
- Provide a site plan showing the details of connectivity existing and proposed road and rail transport.
- Provide a site plan showing buildings, roads, and open spaces, confirming the hierarchy of roads as per the rules given by UDPFI guidelines.
- Discuss the impacts of increased vehicle traffic and requirements for access improvements on roads in the site development area as a result of the project, considering other existing and planned developments and operations in the region including what measures will be taken to reduce traffic and enhance vehicle safety on external roads
- Discuss any expected change in traffic volume by Average Annual Daily Traffic (AADT) and any seasonal variability in traffic volume (including mitigation measures) prior to construction, during construction and at full site operation

5.2 Building Material and Technologies

- Detail the types of materials use in each component part of the building and landscape (envelope, superstructure, openings, and roads and surrounding landscape).
- Detail out the plans and sections of buildings showing use of new technologies and non-conventional methods
- Detail out the plans and sections of building using new construction techniques

5.3 Energy Conservation

- Use of alternative renewable resources such as solar / wind power etc. is to be discussed
- Discuss the options considered for supplying the power required for the project and the environmental implications, including opportunities to increase the energy efficiency of the project.
- Details of U & R values are to be given.

- Details of the renewable energy systems (sizing and design), building costs and integration details are to be provided

6.0 Environmental Monitoring Program

- Frequency, location, parameters of monitoring
- Compilation and analysis of data and reporting system

7.0 Additional Studies

7.1 Risk Assessment (RA) and Disaster Management Plan (DMP)

Discuss emergency plans for any environmental risks and such as earthquakes:

- Types of emergency; internal and external origin
- Emergency evacuation plan
- Emergency procedures
- Helipad facilities for buildings with height beyond 60 meters

7.2 Natural Resource Conservation

Plan of action for conservation of natural resources and recycle waste materials due to the project activity in the construction and operational phase of the project is to be discussed.

8.0 Project Benefits

This section details out the improvements in physical infrastructure, social infrastructure, if any. Also detail out any employment potential and other benefits that are accrued if the project is taken up.

9.0 Environmental Management Plan (EMP)

Detailed EMP may be formulated to mitigate the residual impacts which should inter alia include the impact due to change in land use; due to loss of agricultural land and grazing land besides other impacts of the projects. Budgeting of the EMP may be included in EIA. The EIA should discuss in detail the following aspects:

a) Sewage Treatment Plant

- Sewage Treatment Plant has been designed to treat the wastewater from the building. The wastewater be treated to tertiary level and after treatment, reused for flushing of toilets in apartment building and gardening.
- Treated water reused for landscaping, car washing etc. and partly discharged.
- Treated sewage should conform to E(P) Rules.
- Sewage Treatment Plants are to be monitored on regular basis.
- Spent oil from DG Sets should be stored in HDPE drums in isolated covered facility and disposed off as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.
- Spent oil from DG Sets should be disposed off through registered recyclers only.
- Provision of effective controls and building management systems such as Automatic Fire Alarm and Fire Detection and Suppression System etc. must be ensured. Adequate access to fire tenders should be provided
- Provisions should be kept for the integration of solar water heating system and other energy conservation methods

10.0 Summary & Conclusion (Summary EIA)

This document should summarize the significant findings of the EIA report. The summary should describe each significant environmental issue and its resolution in sufficient details so that its importance and scope, as well as the appropriateness of the approach taken to resolve it are well understood. Wherever possible, the summary should make use of base maps, tables and figures given in the report. The following should be addressed in the summary if applicable:

- Potential interruption or limitation of accesses to dwellings, businesses or productive resources either permanently or temporarily;
- Encroachment or reduction of green areas, parks, and other recreational areas. Demolition of buildings high architectural or historical value;
- Potential deterioration of urban quality and property value in the immediate vicinity of the works or deterioration of unique architectural characteristics in the neighbourhood;

11.0 Disclosure of Consultant engaged:

This chapter shall include the names of the consultants engaged with their brief resume and nature of consultancy rendered.

12.0 Corporate Environmental Responsibility:

- Does the company have a well laid down Environment Policy approved by its Board of Directors ? If so it may be detailed in the EIA report.
- Does the Environment policy prescribed for standard operation process/procedures to bring into focus any infringement/deviation/violation of the environmental or forest norm/conditions ? If so, it may be detailed in the EIA.
- What hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.

- Does the company have a system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

Enclosures

Conceptual Plan/Questionnaire/Photos

Additional ToRs:-

Project specific additional suggestions:

1. The PP should submit a copy of the valid license alongwith collaboration agreement and revenue record of the area of the project.
2. The PP should submit contour plan, Master plan, car parking plan, traffic circulation plan, elevation section plan, perspective view plan and area demarcation plan as per the latest definition given by MOEF-GOI alongwith with latest photograph and development in 500 meters of the project site.
3. The PP should submit the status of the construction of their project giving a duly notarized affidavit.
4. The PP should submit the assurance of the supply of the water during construction phase from safe area through tankers and permission from CGWA for using the ground water of the existing borewell including permission from HUDA for supply of water during operation Phase with detailed clarification from HUDA regarding availability of water in the area.
5. The PP will submit detailed dual plumbing system for recycling the treated water.
6. The PP should submit NOC from the Forest Department indicating that the area under consideration does not fall under the Forests Acts and Section 4 & 5 of PLPA. The PP should also submit NOC from Deputy Commissioner concerned regarding Aravali Notification dated 07.05.1992.
7. The PP should submit the hydraulic design of STP with dimension of each component.
8. The PP should submit detailed Solid Waste Management plan.
9. The PP should submit landscape plan (Green area, Avenue Plantation, Organised green and Water Body(5%)) indicating minimum area of 30% of the project area. Following details of green belt should be given:
 - a) Width, length and area to be covered;
 - b) Number of rows of trees to be planted; and
 - c) Tree species required to be planted and spacing to be maintained between them depending on the local climate and site conditions.
10. The proponent of the building construction project is required to submit risk assessment identifying the detailed/ hazards involved during construction phase and operation phase, causes of such hazards and their mitigating measures.
11. The proponent is required to submit the energy (power) balance plan qualitatively and quantitatively taking into account the various aspects like total energy required, sources of energy inputs and outputs. Account for total energy saving incorporated to solar passive techniques in building design, enhanced building material specifications, use of designing energy efficient lighting techniques to minimize the load on conventional systems (heating, cooling ventilation and lighting) use of renewal energy sources like solar water heaters and photovoltaic systems, by adopting various lighting/power control systems and by using advance electrical system like power transformers , energy efficient motors and diesel generators, efficient effluent water treatment systems referred in NBC 2005 and MOEF GI guidelines.
12. Prepare complete risk assessment plan of the fire fighting systems (water sprinkling system, water hydrant system, chemical fire extinguishers systems, capacity and storage of water for fire fighting, man power for fire fighting and protective clothing for fire fighters and liaison with the district fire fighting teams and other district authorities for use) in case of fire fighting and fire rescue system taking into account all the building design features with line diagrams of the fire fighting system and rescue systems indicating the codes, and standards and specification used with reference to NBC 2005
13. Explain with line diagrams of sewer, drainage system (septic tank, effluent treatment plant) and ducting system like natural or forced draught to be provided to avoid the accumulation of the hazardous sewer gases and underground explosion in the building construction phase and operation phase.
14. Ensure the detailed orientation plan of the site/building pertaining to wind rose and solar orientation to achieve better natural light and ventilation in terms of air changes per hour in all parts of the occupancy, kitchen, toilets, basement, DG Set rooms and staircases etc.
15. The PP should submit the dispersion model for ambient air quality on the basis of analysis report as per the latest standard of the November, 2009 and ensure dispersion modeling of 24 hours concentrations for NO₂, SO₂, CO, PM₂₅, PM₁₀.
16. As per your project report your project falls in seismic zone, specify the standards and codes used in building construction to minimize the risk of natural calamities like wind, load, seismic load (earthquake), thunder storm/lightning etc. as per NBC 2005.

17. The PP should submit ground water site specific hydro-geological details alongwith recharge capacity of recharge pit based on field test and also submit Rain water harvesting maintenance plan.
18. The PP should submit the legible reports in all respects.
19. The PP should submit an affidavit that building is not lies within the recharge zone. If the building lies within Recharge Zone, TOR will be considered as Null and Void.
20. The PP should submit an affidavit that there should be no encroachment of Nala/Forest land/Govt. Land in the area by the PP.
21. The PP should submit an affidavit that No Water Body/Bandh should be disturbed by the PP.
22. The PP should obtain Permission from Appropriate Authority for laying of Services above or below the Gas pipeline passing through the site.
23. The PP should obtain permission from HUDA for Treated Sewage Discharge Water .
24. The PP should submit Solar power generation as per MoEF guidelines.
25. The PP should submit Structure Stability Certificate from reputed institute.
26. The PP should submit details of Hydraulic Ladder for the building Height. Permission from HUDA for Treated Sewage Discharge Water .
27. The PP should submit comparative details marked on the plan and elevation showing the changes proposed.
28. The report shall be duly signed by the Project Proponent and the Consultant on all the pages.

The project proponent requested that they may be allowed to use the previously generated data which was in accordance with the standard Terms of Reference approved by the SEAC

They further stated that they have already generated data from December, 2015 the day after the case was submitted to the SEIAA and requested to utilize the baseline data. The Committee after detailed deliberations accepted the request of the PP and directed the PP to generate one month more data.

The PP will submit Environment Impact Assessment Report by incorporating the Terms of References (ToR) as approved by the Committee within a time schedule in compliance of EIA Notification dated 14.09.2006. It was also decided that their project will be considered as received only after receipt of complete information.

S. Narayana
15/19
Secretary,
State Expert Appraisal Committee,
Haryana